

NEWS

& information

IAH - THE WORLD-WIDE GROUNDWATER ORGANISATION

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

DECEMBER 2016

Also in this issue:

From our new President
Commissions & Networks
Mentoring scheme update
IAH Awards
HJ and books news
Meeting reports
New members
Conference listing

and the usual IAH
announcements and news



IAH 43RD CONGRESS



The French and German National Chapters of IAH were proud to host our 43rd Congress in Montpellier and at the same time celebrate 60 years of IAH.

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GRIPP/MAR COMMISSION



GRIPP, which is led by IWMI, the International Water Management Institute, invites further interaction with IAH as it develops its work programme.

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RESULTS - COUNCIL ELECTION



The results of the 2016 IAH Council elections were declared at the Association's Annual General Meeting in Montpellier on 26 September.



Full details on Page 2

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DECEMBER 2016

NEW IAH COUNCIL TAKES OFFICE

The results of the 2016 IAH Council elections were declared at the Association's Annual General Meeting in Montpellier on 26 September. The democratic health, institutional transparency and organisational energy of IAH benefit greatly from regular changes to the Council's composition, and at this election we have 6 new members. According to our Articles of Association, all paid-up members are eligible to stand for election to Council. Nominations opened on 1 January and closed on 31 March. Considerable efforts were made to encourage nominations, with a full page article in the newsletter in December, calls on the website throughout the nomination period and mention in the journal alerts. Nominations were sought and received from IAH national chapters and commissions and networks as well as from individual members. Whilst disappointed that candidates did not step forward to provide competition for more of the posts, we were nevertheless happy to see strong candidates for the two contested posts, and will hope to harness the energy and experience of the losing candidates to the benefit of IAH.

Voting for the new IAH Council opened on 1 July and closed on 23 September, using the same on-line ballot system as in previous elections. The 1481 members who voted represents a 36.8 % turnout, a small improvement on both 2008 and 2012. Our on-line voting partner tells us this compares well with turnouts for voting in similar associations. Comments from voting members in the space provided were approximately equally divided between commending the ease and efficiency of the on-line system and regretting the lack of more contested posts. The full results are shown in the table below. We are particularly pleased to have four women members on the new council.

Post	Name	Votes
President	António Chambel, Portugal	1312
Secretary General	Bruce Misstear, Ireland	1311
Vice President, Finance & Membership	Teódora Szócs, Hungary	1269
Vice President, Science & Programme	David Kreamer, USA	1267
Vice President, Asia	Makoto Taniguchi, Japan (elected) Devinder Kumar, India Yongje Kim, Korea	613 360 277
Vice President, Australasia	Wendy Timms, Australia	1222
Vice President, Eastern Europe & Central Asia	Natalia Vinograd, Russia	1193
Vice President, Western & Central Europe	Marco Petitta, Italy	1278
Vice President, Latin America & the Caribbean	Carlos Molano, Colombia	1180
Vice President, Middle East and North Africa	Ahmed Fekri, Morocco (elected) Ralf Klingbeil, Germany	643 588
Vice President, North America	Joanne Thompson, Canada	1225
Vice President, Sub Saharan Africa	Callist Tindimugaya, Uganda	1198

The retiring council was thanked for its hard work on behalf of the Association by outgoing President Ken Howard, who will join the elected members to complete the IAH Council. The new council was in turn welcomed by the incoming president, and held its first meeting in Montpellier on 28 September. We wish them well in their efforts on behalf of IAH, and the Secretariat looks forward to a continuing close and fruitful relationship with Council.

SECRETARIAT

 <https://iah.org/about/council>

 www.facebook.com/iah.org

A year of reflection... and looking ahead...

Our 60th anniversary year is drawing to a close and we can reflect on the ways this has been marked. The 43rd Congress in Montpellier was the main focus of our celebrations, with a packed programme of technical presentations, commission and network meetings, the IAH awards, Early Career events and student competitions, many of which are reported in this newsletter. In our 60th year, it was particularly fitting that France and Germany, two countries whose IAH members played such an important role in IAH's formative years, should jointly organise the congress, and we are very grateful for their efforts.

The anniversary was, however, celebrated in other ways and in other places. Drawing on a combination of the association's archives, personal recollections and old photographs, an article chronicling the history of IAH was published in the August edition of Hydrogeology Journal. This is not the end of the historical activity; we are gradually making available via the IAH website a whole range of information and pictures from our past years. We are grateful to the members who have sent us pictures and are always happy to receive more. Many national chapters have recognised the anniversary at their meetings, some of which are reported in the chapters section of this newsletter, and more are taking place towards the end of the year; too late for inclusion here.

With the change of President and Council, this is also a time to look forward. Joining new President António Chambel in thanking those outgoing council members who have served the association so well over the years, we can see from the election results on the opposite page that we have six new council members. The new council met for the first time in Montpellier, taking on board the various tasks needed to further build on the association's Forward Look initiative and dispersing across the globe promising to work hard to continue to develop all our activities as we move into our second sixty years. Needless to say, the Secretariat will be here with the support and advice that we have always readily provided.

JOHN CHILTON

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Season's Greetings

John, Kellie, Sharon and Sue would like to thank you for your support throughout the year and wish you a happy festive season over the Christmas and New Year period and a peaceful and successful 2017.



Thanks, and my expectations for IAH in the next 4 years

After 60 years, IAH continues to be the largest professional association dedicated to groundwater in the world, with more than 4,000 members in around 140 countries. For me, it's a great privilege, in the name of our members and with their support, to help lead and coordinate the activities of the association during the next four years.

IAH has its secretariat in the UK, coordinated by our Executive Manager, John Chilton, and with a team formed by Kellie Nicholson (Executive Assistant), Sharon Warden (Membership Administrator) and Sue Duncan (Technical Editorial Advisor, Hydrogeology Journal). They have been the main core of the day-by-day administration of the association, deserving all our respect and acknowledgement.

As the governing body of the association, the newly elected Council represents our members. I especially welcome new members Natalia Vinograd, Joanne Thompson, Makoto Taniguchi, Marco Petitta, Carlos Molano, and Ahmed Fekri. Thanks also to all the other Council members who will continue their activities, Wendy Timms, Callist Tindimugaya, Ken Howard; also new executive members Teodora Szöcs and David Kreamer and finally new Secretary General Bruce Misstear, who will continue as a member of the Executive. The members of the Executive manage the Association and report their decisions to Council. As advisors to Council, IAH has John Chilton (Executive Manager), Cliff Voss (Editor in Chief of Hydrogeology Journal), Nick Robins (Editor in Chief for IAH Books) and Carlos Maldaner (representative of the Early Career Hydrogeologists), who has recently replaced Viviana Re in this post. Thanks to Viviana for her active contribution as council advisor.

A word also to the members who have left Council, Luiz Amore, Mohamed Aboufirass, Jun Shimada, Shammy Puri and to our colleagues from Russia and family of Igor Zektser, who left us in the last months of his mandate. A special reference to Willi Struckmeier, member of the Council as Past-President, who will now help us in other ways. Thank you all for your contribution to the development of IAH and for your dedication to our common cause.

IAH has eight commissions and six networks, which embody the scientific, technical, educational and advocacy role of IAH, bringing the most advanced science to all corners of the world. We also have 44 national chapters, representing IAH at country level, with responsibilities towards national scientific, professional and political issues in the domain of groundwater. The Hydrogeology Journal is one of our main achievements, being today the most important international journal fully dedicated to groundwater, whilst our books continue to be an important value for the visibility of the association, thanks to the excellent work of Cliff Voss and Nick Robins respectively. I believe it is our responsibility to improve the scientific level of world hydrogeology through the work of our commissions and networks, through the dissemination of hydrogeological knowledge to scientists working in other water-related disciplines, and raising awareness in institutions responsible for water governance and citizens in general about groundwater issues.

IAH is driven by its members, so we will continue to seek your opinions and support to help us govern the association. Following the Forward Look meeting and resulting programme of activities for the period 2010-2020, some of the proposed tasks are now finished, including the new website and reform of the commissions, others are on the way and some will probably be reformulated, but this programme will continue to be our overall guide for this council.

My intention is also to reinforce our international relations with partner organizations such as UNESCO-IHP, UN-Water, UNEP, WHYMAP (World Hydrogeological Mapping and Assessment Programme), CGMW (Commission for the Geological Map of the World), WHO, FAO, GEF (Global Environment Facility), WWC and IGRAC, programmes such as GRIPP (Groundwater Solutions Initiative for Policy and Practice), regional organisations such as ALHSUD (Latin-American Association of Groundwater Hydrology for Development) and the African Groundwater Network and national organisations in Brazil, Colombia, Mexico and Nigeria among others.

At an international level, our aim will also be to identify the next biggest groundwater challenges in the world and improve the influence of IAH in international institutions working on water issues. Particular attention will be given to the most important water related international projects, especially in integrated approaches with other sciences, to the scope of future international sources of funding for water science, to strengthening ties with sister organizations, to the dissemination of scientific information in developing countries, and to the continuity of our high level scientific publications.

The financial aspects of the association will be another concern and changes in the editorial organization will be reflected in costs, together with the gradual transition of journals from paper to digital, to which we will continue to pay close attention.

At an internal level, our aim will be to improve the quality of IAH's conferences, to reinforce the importance of our commissions and networks and to maintain or establish more IAH national chapters, working to support their activities in line with the aims of IAH. On the educational front, the intention is to augment the IAH Strategic Overview Series with new topics, and to extend our activities to webinars and short courses to reach a broader audience. The Journal and books will continue to be a publishing priority for IAH. At the same time, we will continue to support the initiatives and work of our early career members, who will have a key role in the development of the association in the future.

IAH also needs to strengthen its membership. The proposed goal of 5,000 members by 2020, defined in the Forward Look, seems difficult to achieve, but we appeal to all our members to help, especially our colleagues in universities and research centres to persuade students and young researchers to join the IAH family and help the association to be much stronger in the future.

Finally, I will continue to rely on the expertise and experience of past members of the Executive Ken Howard and Shamy Puri, thanking them for all the work they have done for the association in recent years.

ANTÓNIO CHAMBEL



MEDIA FOCUS

A selection of groundwater features from around the world

CANADA: ONTARIO NEEDS BETTER GROUNDWATER DATA

Ontario's environmental commissioner is urging the Liberal government to get better information about the province's groundwater as it reviews permits for bottled water companies. Premier Kathleen Wynne recently imposed a two-year moratorium on any new or expanded bottled water operations in the province while the government reviews the rules and comes up with a new pricing scheme. Wynne wants bottled water companies to be treated differently than the many others with water-taking permits, including mining and construction.

But environmental commissioner Dianne Saxe said the government doesn't have enough data to know what's happening with ground water in Ontario. "We're making decisions with our eyes closed," she said. "We don't have enough information, yet we're allowing millions of litres to be taken every day out of the ground." The environmental watchdog warned that climate change will increase the stress placed on water with more frequent and longer droughts. Environment Minister Glen Murray said the current review will focus only on bottled water companies that draw from wells, but he plans to expand it next year to include others with water taking permits.

<https://www.thestar.com/business/2016/10/27/ontario-needs-better-data-on-its-groundwater-supply-says-environmental-watchdog.html>

WILL CENTRAL ASIA FIGHT OVER WATER?

In Central Asia, a crisis is brewing over water and electricity. The Soviet-era system in which the five countries of the region shared their resources has broken down, leaving some facing water shortages and others chronic power cuts. Instances of small-scale unrest have already occurred, but some warn this could be just the beginning. While the immediate concern is largely directed towards surface water resources, groundwater provides the basis for important irrigated agriculture in the region.

<http://www.bbc.co.uk/news/magazine-37755985>

US: LARGE PRECIPITATION EVENTS CRITICAL IN REPLENISHING GROUNDWATER RESOURCES

Large precipitation events that occur about every 10 years are a critical source of recharge for replenishing groundwater resources, according to a new study by the US Geological Survey and the US Bureau of Reclamation. Groundwater is a vital source of water in the western United States, and will be increasingly important with continued population growth and climate variability. Understanding the role of these large recharge events in replenishing aquifers and sustaining water supplies is crucial for long-term groundwater management.

This is one of the first studies in the region to investigate the effects of climate on groundwater resources. USGS scientists identified and analyzed large, multi-year, quasi-decadal groundwater recharge events in the northern Utah portion of the Great Basin from 1960 to 2013. Researchers evaluated groundwater levels and climate information and identified five large recharge events with a frequency of about 11 to 13 years. Findings show these events provide a significant amount of groundwater recharge and storage across the northern Great Basin, causing water levels to rise in the region's aquifers.

<https://www.usgs.gov/news/large-precipitation-events-are-critical-replenishing-groundwater-resources>

JAPAN: FUKUSHIMA ICE WALL SHOWS LITTLE SUCCESS AT PREVENTING GROUNDWATER INFLOWS

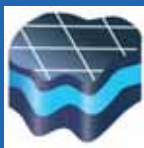
An "ice wall" put up by Tokyo Electric Power Co (TEPCO) around its four crippled reactor units at Fukushima Daiichi reportedly isn't working as planned to prevent groundwater flowing into the devastated nuclear plant. The 1,500 m long "ice wall" encircling Units 1 to 4—which TEPCO calls "land-side impermeable walls"—is actually a barrier of soil frozen by a refrigerant flowing from a freezing plant through pipes buried 30 m underground. It is designed to block groundwater flowing down from nearby mountain ranges entering the devastated reactor buildings.

TEPCO has struggled to contain and treat water flowing into the Daiichi plant since it was devastated by the March 2011 earthquake and tsunami disaster. An estimated 70,000 tons of highly contaminated water remain in the reactor buildings, and about 10,000 tons of contaminated water has collected in underground trenches around the reactors, TEPCO said earlier in August.

<http://www.powermag.com/reports-fukushima-ice-wall-is-showing-little-success-at-preventing-groundwater-inflows/>

Waterloo Hydrogeologic's *Semi-annual* SOFTWARE SALE!

Visual MODFLOW
Flex



- Descriptive & predictive ground-water modeling
- The industry standard

Hydro GeoAnalyst



- Comprehensive environmental data management
- Experience mobile EDDs option

AquiferTest Pro



- Quick & easy analysis pump and slug test of data
- Includes automatic type curve matching

AquaChem



- Fast production of water quality plots & reports
- Integrated geochemical modeling with PHREEQC



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NX NOVA
METRIX

Content Sharing

Springer Nature (Hydrogeology Journal's publisher) has launched free "content sharing" via an initiative named SharedIt, enabling all journal authors and subscribers to disseminate articles swiftly and legally to social media platforms, repositories, websites, scholarly collaborative networks and via emails. SharedIt provides access by over 200 key media outlets; many on the list are aimed at the public, including the BBC, The Economist, WIRED and The New York Times, and the list also includes many leading science bloggers. Content sharing is enabled through a unique "Share article" link on the published article's dashboard, which will allow anyone to read a view-only version of the published article, even if copyright is retained by Springer. In other words, the full article can be viewed on your computer screen, but not downloaded or printed. Authors who choose to make their articles open access (i.e. author retains copyright + free access) are already ensuring that their articles can be freely accessed immediately on publication. Open access articles will also be shared via the content sharing scheme, providing a seamless experience for users as they read both open-access (OA) and non-OA articles. Unlike when PDFs or paper versions of research are circulated, the SharedIt links ensure that the most up-to-date online version of the article is accessed. In addition to the full text of the articles, the enhanced PDF provides hyperlinked in-line citations and figures, annotation capabilities, one-click access to supplemental content and figures, and advanced article metrics.



<http://www.springernature.com/gb/group/media/press-releases/weve-sharedit-springer-nature/10872820>

Altmetrics

HJ's rising Impact Factor (2.028 for 2015) is great news! The usage and influence of Springer journals can also be tracked by downloading the Altmetric bookmarklet and assessing the Attention Score for each article. This overall metric can include: mentions on social media networks (Twitter, Facebook, Google+, LinkedIn, etc), research blogs, mainstream media coverage, Youtube, etc; bookmarks on reference managers like Mendeley; and citations on Wikipedia and, more recently, in policy and guidance documents from government or non-government organisations (FAO, UNESCO, World Bank, WHO, etc). The policy/guidance component involves searching PDF files collected and scanned from online sources and repositories that are accessible to the public and which are currently being tracked. The technology is quite new and at the moment fails to pick up a significant proportion of known citations, but Altmetric are undertaking further research and calibration to improve the reliability of the output. If you are interested, have a go! See whether your article, or any other articles of interest, have contributed to policy-making or guidance across the world.



<http://www.springernature.com/gb/group/media/press-releases/weve-sharedit-springer-nature/10872820>

Features for Reviewers and Authors

Springer has partnered with Publons in an effort to ensure that peer reviewers receive recognition for their work. Publons is a free service that tracks, verifies and showcases your peer review activity across all journals, without compromising reviewer anonymity. You can then use your profile as evidence of your peer review contributions and expertise in performance evaluations. A Publons profile allows you to: build a verified record of your review activity; compare your reviewing habits with others around the world; comment on world-wide research with post-publication reviews and discussions; and highlight your reviewing expertise and availability to journal editors. HJ is not yet an automatically participating journal, so evidence of review contribution would need to be entered manually, e.g. the email that thanks and acknowledges you for your valued contribution to the journal.

Publons also partners with ORCID, so that your peer review record can be exported to your ORCID account, if you have one. Springer encourages all authors to register for an ORCID iD (persistent digital identifier), which distinguishes you from other researchers and supports linkages between you and your professional activities, affiliations, awards and other versions of your name. Observant HJ readers may have noticed recently the arrival of the small circular “iD” symbol next to some author names.



<https://www.springer.com/gp/authors-editors/editors/publons>

RECEIVING YOUR ALERTS? SUBMIT AN ARTICLE?

Ensuring that our members receive their IAH entitlements such as the HJ is important to us; communication is key. Are you receiving your regular IAH messages and alerts with HJ link and latest news digests? Do you work for a large government/commercial/educational organisation? Many such employers have firewalls in place. You may have to provide an alternative email address to receive your member mailings, or speak to your IT department.

IAH emails are always sent from an @iah.org address. Our online mail campaigns are handled by a highly reputable Australian company called Campaign Monitor (also used by many well-known global entities).

Please check/edit your details regularly - we'd hate you to miss out.

SECRETARIAT

IAH's Hydrogeology Journal is a premier journal for groundwater professionals, with eight issues totalling around 1850 pages per year. Since its inception in 1992 it has acquired a large readership worldwide, and will be celebrating its own 25th anniversary in 2017. The journal goes from strength to strength as the association's premier scientific outlet. Why not consider submitting an article on the results of your groundwater research to the journal? Further details can be found on the IAH website.

SECRETARIAT



<https://iah.org/hydrogeology-journal>

Report by John Chilton

IAH 43RD CONGRESS

The French and German National Chapters of IAH were proud to host our 43rd Congress in Montpellier 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 congress and, at their invitation, our colleagues from Germany, a country which also played an essential role in setting IAH on its way, joined them in organising the congress.

To recognise our 60th anniversary, following the formal opening, the congress programme included a session of invited presentations, videos and discussions to reflect and celebrate the achievements of IAH. Opened and chaired by IAH President Ken Howard, the session commenced with a visually stunning short film on karst groundwater by Philippe Crochet illustrated by dramatic pictures of cave systems. Following this, IAH Executive Manager John Chilton provided an appreciative and light-hearted personal reflection on "IAH at 60: Past achievements, present activities and future challenges". This was based largely on the recent history paper in Hydrogeology Journal and augmented by pictures gratefully received from several sources. Next came a brief summary from Craig Simmons of the history of the Time Capsule project, which included several video clips, to mark its own ten year anniversary.

This was followed by a short and entertaining video of Jean Margat in Morocco during the 1950s and a brief presentation from Jean on "groundwater flow and stock". He pointed out that recent publications seeking to quantify regional or worldwide groundwater resources were often based on estimations of phreatic aquifer recharge and the evaluation of stored volumes, without any appraisal of their actual exploitability and no distinction between renewable and non-renewable resources. As a consequence, over-



estimations of the actual available groundwater resource are often produced, which may favour overexploitation of groundwater resources instead of managing them for sustainability. Next came a brief presentation from the Early Career Hydrogeologists' Network, followed by presentations by Ken Howard of two of the 2016 IAH awards (see page 18-19). The session concluded with an excellent invited review by Craig Simmons of the long term relationship between people and groundwater, enabling him to highlight some of the most important developments in the science and practice of hydrogeology.



The congress schedule continued with a mix of invited keynote plenary speakers, seven streams of parallel sessions, poster displays, commercial and technical exhibition and the usual mix of IAH meetings, some of which are reported elsewhere in this newsletter. Even with two conferences in progress at the same time, the enormous modern venue in the centre of the city provided an excellent space in which the exhibition, posters and coffee breaks all took place together. With the technical sessions compressed into three rather than the normal four days, and over 850 abstracts received and 758 registered participants, the very success of the congress inevitably resulted in long days and some over-crowded rooms. The invited keynote presentations provided varied and high quality introductions to the morning and afternoon sessions.

A particular achievement of the organising committee and their volunteer student helpers was to ensure that 290 participants took part in the excellent field visits into the region surrounding Montpellier. Many positive comments were received, particularly about the high quality of the field trip booklets, the typically French picnic lunches (at least on my trip!) and the very knowledgeable guides. The congress dinner outside Montpellier also presented some logistical challenges (two of the buses got lost on the way) but the food and drink, especially the canapes in the courtyard, the company of friends and the music and singing made for a truly memorable evening.

Overall, the 43rd congress was a great success and we are grateful to our French hosts, in particular Michel Bakalowicz, Laurence Chery and Patrick Lachassagne and their German colleagues Johannes Barth, Maria Schafmeister and Willi Struckmeier for their extraordinary hard work over the last 18 months. Given that they stepped in at rather short notice to help the association to ensure that we did indeed have a congress for our 60th anniversary and election year, they deserve our particular thanks for putting on such a splendid event.


JOHN CHILTON



COMMISSIONS & NETWORKS

Many of the IAH Commissions and Networks convened sessions in Montpellier and/or held their annual meetings there. Here are notes we have received, reporting the meetings and encouraging members to participate in their activities.

JOHN CHILTON

 Questions, ideas or comments? email info@iah.org

MANAGING AQUIFER RECHARGE

The IAH Commission on Managing Aquifer Recharge had its second plenary for the year in Montpellier, attracting 26 attendees from 13 countries. The Commission actively supports UNESCO IHP through a number of active working groups, which provided reports on their activities. There are opportunities for all in IAH to contribute to those that may be of interest and participation is invited in the following:


- Monograph on clogging and its management – Russell Martin russell.martin@aqueon.com.au
 - a second volume of papers is being collated on managing clogging;
- MAR for Development – Yan Zheng yan.zheng@sustc.edu.cn
 - following the June workshop a set of factsheets on projects is being collated;
- MAR to MARKET – Enrique Fernandez Escalante efernan6@tragsa.es
 - exploring alternative uses of MAR, particularly in decentralised and farmer collectives;
- Global MAR Inventory – Catalin Stefan catalin.stefan@tu-dresden.de and Nienke Ansems (IGRAC) nienke.ansems@un-igrac.org
 - seeking basic meta data on MAR projects for inclusion on IGRAC's MAR portal and also exploring MAR potential mapping;
- 60 years history of MAR – Peter Dillon and Pieter Stuyfzand pdillon500@gmail.com
 - journal paper in preparation aggregating summaries of national development of MAR research and practice,

several more national coordinators needed, some technology coordinators needed;

- Economics of MAR – Andrew Ross a.ross@anu.edu.au;
 - economic evaluation of costs and benefits of MAR for sites where information available;
- Policy principles for groundwater management – Tim Parker tim@pg-tim.com
 - A Call to Action from ISMAR9 Mexico City, was produced by a working group and is now available and is of value for forging and supporting groundwater policies.

The first MAR plenary of the year took place at the ISMAR9 conference in Mexico which was reported in the last newsletter. Two thematic issues of open access journals are in preparation. The first is "Water Quality Considerations for Managed Aquifer Recharge Systems" in the journal, Water for which 20 ISMAR9 authors had been invited. The second, "Integrated Water Management Incorporating Managed Aquifer Recharge" in the journal Sustainable Water Resources Management. All are invited to ISMAR10 which will be held in Madrid in May 2019. The next MAR Commission plenaries will be at the Australian Groundwater Conference in Sydney in July 2017 and at the IAH Congress in Dubrovnik in September 2017.

PETER DILLON

 ISMAR call for action and conference material: www.ismar9.org

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

BURDON GROUNDWATER NETWORK FOR INTERNATIONAL DEVELOPMENT

THE IAH Burdon Groundwater Network for International Development (BGID) co-organized a session on “Groundwater for sustainable water supplies in developing countries” in Montpellier chaired by Alan MacDonald, Viviana Re and Jean-Michel Vouillamoz (IRD-LTHE, France). The session focused on groundwater supplies in developing countries, addressed by 15 oral presentations, 15 e-posters and 4 flash poster presentations. Specific attention was paid to the contribution of groundwater to domestic and agricultural needs, to new approaches for improving knowledge about groundwater availability and renewability, current and future challenges for increasing groundwater supply in developing countries, and the opportunities for developing participative approaches for long-term sustainable management. BGID thanks all the speakers and presenters who, together with the session participants contributed to the lively discussion on groundwater’s role in developing countries.

The IAH-BGID Annual General Meeting (AGM) was held in Montpellier with the aim of updating members on current and future activities. This included information on the network website and social media to be launched this year. The website will develop over time to include links to free resources available online and will be regularly updated with news and information useful for network members. More information will be posted on the IAH-BGID LinkedIn group, so please make sure to join! During the AGM, participants identified the following mid-term objectives from the network:

Collaborate with the IAH regional vice president to find new strategies to increase membership in Sub-Saharan Africa and low-income regions;

Increase visibility of research and activities carried out in Sub-Saharan Africa and low-income regions;

Prepare a book for the IAH Book Series with relevant case studies in BGID key areas and topics;

Continue to work closely with the African groundwater Network (AGWNET) and develop a platform to promote easy virtual networking amongst members in Africa.

Update on the Africa Groundwater Atlas

As previously reported, the Africa Groundwater Atlas was launched online in May 2016. It has been developed within the UPGro research programme by BGS with support from the BGID, in collaboration with IAH members and other hydrogeologists across Africa. The Atlas had its formal launch at the 7th RWSN Forum in Abidjan, Cote d’Ivoire in November. More funding has been secured from the UPGro to develop it further over the next three years, and the developers welcome further input from BGID members. So please check out the Atlas and Literature Archive and get in touch with suggestions of improvements or additions.

VIVIANA RE, ALAN MACDONALD, TAMIRU ABIYE AND BRIGHID Ó DOCHARTAIGH



Discussions at the poster session in Montpellier. Chiara Tringali



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

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

[continued over...]

COMMISSIONS & NETWORKS

[...continued from previous]

URBAN GROUNDWATER NETWORK

A very successful urban hydrogeology session was chaired by the Urban Groundwater Network. The talks were wide ranging and well attended – highlighting both the large number of issues and interest for urban hydrogeology with growing city populations, increasing climatic variability and city infrastructure and land use planning challenges. Talks were presented on the impact of sustainable urban drainage schemes on shallow urban groundwater resources, the influence of urban infrastructure on groundwater flow paths and recharge, the potential role of the hyporheic zone in attenuating organic micropollutants, and approaches for managing urban groundwater as a resource for both heat and water.

The Urban Groundwater Network also saw a change in directorship at the congress, with Helen Bonsor (UK) taking over from Ken Howard after many years of his leadership of the network. Ken is remaining a Co-Director, and the network is looking to appoint at least one new co-director. If anyone is interested in this position please contact Helen who is a hydrogeologist at the British Geologist Survey (BGS), and a Knowledge Exchange Fellow of the Natural Environment Research Council in UK, examining how subsurface environmental data can be integrated into urban planning approaches. She is actively engaged in the European Cooperation for Science and Technology (COST) Sub-Urban Action. Her main research interests lie in monitoring and characterising urban groundwater systems and understanding the impacts of urban development such as sustainable urban drainage schemes.

HELEN BONSOR



helnsob@bgs.ac.uk

TRANSBOUNDARY AQUIFERS

The IAH Commission on Transboundary Aquifers also met in Montpellier. About 20 participants from 14 countries reported on recent developments in transboundary aquifers globally and shared information on their own work related to transboundary water cooperation and aquifers. Chair Shammy Puri mentioned that the UN General Assembly would debate the form of the Draft Articles in their October 2016 meetings, and urged members to keep their governments informed so that they would give credence to the further adoption of the Articles. He also noted that a dedicated LinkedIn page has been set up and invited everyone to use it for discussions on topical issues.



During the meeting the new Training Manual “Integration of Groundwater Management into Transboundary Basin Organizations in Africa” was presented. AGW-Net, BGR and IWMI jointly described the manual, the history and political process that led to the integration

of groundwater issues into the work of African basin organizations and the recent and next steps in which the manual has been, and will be applied in training activities in Africa. Participants considered the content useful especially for managers and staff in basin organizations who are not necessarily originally groundwater experts. During the meeting interest was expressed in applying the manual in other regions in Africa and beyond (Nile basin, eastern Africa, Central Asia, MENA region). The organizers welcome further suggestions and partners for applying and adapting the manual to different regions and to join for the funding required to further develop this important groundwater management capacity within basin organizations and national water administrations in Africa and beyond. The manual will be used at upcoming training events in West Africa and can be accessed in English or French from the African Groundwater Network website.

RALF KLINGBEIL, MOUSTAFA DIENE AND SHAMMY PURI



<http://www.agw-net.org/literature.htm>



EARLY CAREER HYDROGEOLOGISTS

The Early Career Hydrogeologists' Network (ECHN) was also happy to celebrate the success of the 43rd Congress. The congress was again a great occasion to showcase the work of early career hydrogeologists worldwide. Among all the excellent contributions we are pleased to congratulate Judit Déri-Takács (University of Alberta, Edmonton) and Luis Camilo Suescún (National University of Colombia, Bogota), winners of the ECHN best oral and best poster presentation respectively.

As part of the celebration of IAH's 60th anniversary, an ECHN special session took place under the theme "A day in the life of a hydrogeologist". This event aimed to strengthen interaction between senior and early career hydrogeologists. Senior hydrogeologists, represented by Callist Tindimugaya, Joanne Thomson, Shammy Puri and Wendy Timms presented and shared challenges faced at the beginning of their professional lives and answered questions from the audience related to career development. The importance and demand for mentoring of ECHs became clear, as well as being enjoyable for senior hydrogeologists.

The ECHN Social Function provided the opportunity to mingle, network and participate in a group competition in which everyone had the chance to test their water tasting skills. We thank colleagues from ECHN France for support in the organization, especially Sébastien Santoni and Vivien Hakoun, and the congress organizing committee for financial support.

During the Annual General Meeting, we had an opportunity to award the winner of the ECHN 'Coolest Paper of 2015 Award', promoted with the objective of energizing the early career hydrogeologist community, encourage the discussion of new papers and share the most recent achievements in scientific groundwater knowledge. The winner was Professor Fred Ogden from the University of Wyoming with the paper "A new general 1-D vadose zone flow solution method". Professor Ogden will receive free IAH membership for one year, one free book from the IAH book series and presented the winning paper during the

congress.

The congress was also the occasion to renew the ECHN Steering Committee: Carlos Maldaner (Brazil/Canada) becoming the new chair, replacing Viviana Re (Italy). Viviana will now become an advisor to the network to ensure continuity within the group and to support the involvement of new members in our steering committee. She will also be actively engaged with the IAH Burdon Groundwater Network for International Development, strengthening collaboration between the two networks. On behalf of ECHN, we would like to thank Viviana for her extraordinary work leading and expanding the network during these last years.

The involvement of the ECHN French branch in the congress organization and the support of the student volunteers (aka "the red jackets") is noteworthy, reinforcing the importance of early career members within the Association.



We would like to acknowledge the constant support from the IAH Council, Executive and Secretariat, as well as the organizing committee of the 2016 congress and all the participants for the continued interest in our activities. As we start preparing next year's work agenda, we encourage all IAH members to have a look at our website to find out more about our activities and how to join and be involved in the ECHN. We are always open to new ideas and suggestions to improve networking and career developing of IAH's early career members.

ECHN STEERING COMMITTEE

[... for its part, the Secretariat would also like to thank the committee for all their efforts...Ed]



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

[continued over...]

COMMISSIONS & NETWORKS

[...continued from previous]

COASTAL AQUIFER DYNAMICS AND COASTAL ZONE MANAGEMENT (CAD-CZM)

The meeting of the IAH Network on Coastal Aquifer Dynamics and Coastal Zone Management (CAD-CZM) in Montpellier was attended by 17 congress participants. Director Giovanni Barrocu reported on the activities carried out since the last meeting in Rome and announced his willingness to hand the task of directing the network to younger hands. Candidates to tackle this responsibility will be very welcome.

He took the opportunity to thank Giuseppe Sappa, the CAD-CZM webmaster, for the great efforts with his collaborators to build up the website and keep it working. In fact, he could also be a good candidate for director but will in any case continue to take care of it for the best. Giuseppe, from the University 'La Sapienza' in Rome, demonstrated to the participants how it is structured to collect georeferenced data on the hydrogeological characteristics of coastal aquifers from all over the world. Thus, network members may submit, compare and share their information, which is then available for researchers, professionals, and stakeholders. The continuous exchange of knowledge and ideas on hydrological and hydrochemical processes could suggest improvements to the management of groundwater resources threatened by saltwater intrusion.

Information from more than 50 coastal aquifer questionnaires has been reviewed and published on the website, and about 100 are undergoing validation. Data collected so far on coastal aquifers from all over the world constitute the basis for a comparative analysis of the most adopted investigation and monitoring methods for seawater intrusion, vulnerability mapping, groundwater protection technologies, and institutional planning and management. The network is open to non-member specialists who might be encouraged to join IAH, and contribute to the development of knowledge on coastal water resources management.

GIOVANNI BARROCU



<http://www.iah-cad-czm.net/>

REGIONAL GROUNDWATER FLOW COMMISSION

The Commission organized sessions in Montpellier with the title "Verification of conceptual patterns and expected natural effects of regional groundwater flow by interpretation of relevant field observations". Two oral and one e-poster session covered the topics of fault zone hydrogeology, petroleum hydrogeology, ecohydrogeology, numerical simulation of groundwater flow and basin hydrodynamics. The RGFC specifically celebrated IAH's 60th anniversary with a student competition on regional groundwater flow in collaboration with the ECHN, IAH Executive and congress organizers. After the first online round, nine university teams qualified for the second oral round held in Montpellier, where different regional groundwater flow topics were presented by each team. Four teams excelled during the event: first prize for UofA Hydro (Judit Déri-Takács and Daniel Skoreyko, Canada), second prize for The Hydraulic Heads (Débora János, Marc Laurencelle; Canada) and shared third prize for Flow-ers (Katalin Csondor, Virág Török; Hungary) and INOWAS (Jana Sallwey, Jana Ringleb; Germany). Congratulations to the participating teams and the awardees!

Activity was not only focused on Montpellier; the annual GSA meeting took place in Denver during the same week. A session on characterizing groundwater flow systems at the watershed scale was organized by the commission and attracted 13 oral presentations and 13 posters and 40 to 90 people during the presentations. Many focused on achieving a balance between measurements at discrete points and using these to provide insight to large regions. The session included a broad range of techniques such as classical hydraulic analysis (hydraulic heads and water levels), use of environmental tracers, and numerical modelling.

The commission announces the international symposium: “Characterizing regional groundwater flow systems: Insight from practical applications and theoretical development” to be held on 26–28 June 2017 in Calgary, Canada. The conference will examine the current state of the regional groundwater flow concept, discuss any recent theoretical advancement, and share experiences from applications spanning energy exploration to environmental management. The symposium will be hosted by the IAH Canadian National Chapter, and organized by the IAH Commission on Regional Groundwater Flow in cooperation with the IAH Commission on Groundwater and Energy.

JUDIT MÁDL-SZŐNYI AND ADAM TÓTH

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

PARTICIPATE NOW IN OUR COMMISSIONS AND NETWORKS

As we hope is clear from this newsletter’s reports, the activities of IAH’s commissions and networks include contributing to the science of groundwater and undertaking outreach, education and training. They run sessions at IAH congresses, co-convene technical meetings and field excursions with other societies, host workshops and training courses and prepare educational and outreach publications. All commissions and networks welcome additional participation - you do not have to be an IAH member. We also welcome suggestions for new topics or activities – email ideas and comments to info@iah.org.

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




GRIPP JOINS HANDS WITH THE MAR COMMISSION AT MONTPELLIER

GRIPP (Groundwater Solutions Initiative for Policy and Practice) is a global partnership initiative which aims to promote and enhance sustainable groundwater management through applied multi-disciplinary research and engagement with stakeholders at multiple levels, in particular in developing countries and related to agricultural use of groundwater. GRIPP already counts on more than twenty partners from academia, NGOs, development organisations and the private sector. IAH joined GRIPP, which is an open and voluntary network earlier in 2016 so the Congress in Montpellier provided a welcome opportunity to further discuss how GRIPP and IAH could mutually benefit from the partnership. So far, the MAR Commission has come forward strongly to support and contribute to the GRIPP agenda of initiating joint projects and disseminating results of research and various assessments related to MAR.

GRIPP, which is led by IWMI, the International Water Management Institute, invites further interaction with IAH as it develops its work programme. GRIPP is now involved, together with IAH, FAO and UNESCO, in taking the recent Groundwater Governance Project to the next level, by following up on the Framework for Action.

KAREN VILLHOLTH

 For more information, contact Karen k.villholth@cgjar.org
Sign-up for GRIPP news here: <http://gripp.iwmi.org/>



Dr Alvar Closas, IWMI, and Mr Tales Resende Carvalho, UNESCO-IHP, at the GRIPP/IAH-MAR session in Montpellier

IAH AWARDS

New award goes to Richard Carter

Our anniversary year sees the first presentation of IAH's new Applied Hydrogeology Award, for "a groundwater professional who has made an outstanding contribution to the application of hydrogeology, preferably in developing countries or in support of international development". Seven nominations were received and we are grateful to the panel of Johannes Barth, Jane Dottridge and Callist Tindimugaya for their careful considerations.

The award to Richard recognises that he has practiced, taught and championed applied hydrogeology in developing countries throughout his career and continues to do so with energy, passion and wisdom. He communicates sound hydrogeological science and knowledge to governments, NGOs, donors and communities, and inspires young hydrogeologists to develop practical solutions to groundwater and water supply problems.

Three specific areas that fit him for this award stand out. Firstly, his work on applied hydrogeological science in Africa, including the use of shallow groundwater for small scale irrigation and the development and testing of low cost drilling methods. Secondly, his lifelong support for NGOs, ensuring that good hydrogeological science and practice is made known and available to practitioners and policy makers. Thirdly, at Cranfield Richard has been instrumental for more than 20 years in teaching and motivating students from around the world to appreciate and take up the same practical approaches to their work. In his reply, Richard urged those starting out on a career in hydrogeology to apply their expertise in an inter-disciplinary manner to the big problems of poverty and water and food insecurity as a highly worthwhile and fulfilling vocation. He remarked that he was humbled to receive the award, being aware just how many other African and international hydrogeologists are equally

or more deserving than himself and finally thanked his unknown nominator and the panel of judges.



Regular awards also presented

As an integral part of the 60th anniversary celebrations in Montpellier, two of the IAH Awards were presented during the opening plenary session. It was completely fitting that the 2016 award of Honorary Membership should go to one of the distinguished elder statesmen of French hydrogeology, Professor Ghislain de Marsily, who needed no introduction to many of the congress participants. Throughout his career, he has been an inspiring teacher and a large number of students have graduated under his guidance. His textbooks are important milestones in the development of hydrogeological sciences and in particular his textbook on quantitative hydrogeology has become a standard for students. Ghislain has always been willing to make his expertise applicable for practical solutions and his advice has been appreciated by expert groups both within France and internationally. Ghislain has received many awards. He received the IAH Presidents' Award in 2010 in recognition of his achievements in research and teaching, and well deserves the award of Honorary Membership. Due to a recent leg injury, Ghislain was not able to travel to Montpellier, but was able to respond to the award by video link to the congress auditorium.



The second award made in the anniversary session was the Distinguished Associate Award, presented to a person who, while not being a groundwater professional, has made an outstanding contribution to the understanding, development, management and protection of groundwater resources internationally. The 2016 award was presented by IAH President Ken Howard to Jean-François Donzier, General Manager of the International Office for Water and Secretary of the International Network of Basin Organizations (INBO).

His interest in groundwater goes back many decades and includes involvement in the Franco-Swiss negotiations for the international agreement for joint management of the Geneva region transboundary aquifer (which is still quoted as a good model for such agreements) and working within the French Government to establish groundwater protection measures in water catchments and aquifers used for drinking water. Whilst at INBO, Jean-François has promoted the phrase “Basins of rivers, lakes and aquifers” and become very supportive of the work of IAH and UNESCO-IHP on transboundary aquifers and on the conjunctive management of groundwater and surface water through IWRM at basin level. Recently at COP-21 he promoted the Paris Pact on adaptation to climate change of water resources management in basins and aquifers, which has been signed by 348 organizations world-wide. It is this contribution to greater recognition of the importance of groundwater resources, their wise use and sound management which the award specifically recognises.

Finally, this year’s Presidents’ Award was given to IAH Executive Manager John Chilton. After graduating in geology from the University of Birmingham, John started his working life as a VSO volunteer in the Water Department in Kenya, much of it siting boreholes in varied and difficult terrains. He worked for the British Geological Survey from 1972 until 2008, initially on groundwater resources investigations around the world and more recently on the impact of agriculture and the development of groundwater quality monitoring programmes. The latter interest led to important contributions to and publications for WHO, UNECE, UNESCO, UNICEF and UNEP and the EU Working Group providing guidance on the implementation of the WFD. John was awarded the Whitaker Medal of the Geological Society of London in 2008.

John joined IAH in 1988 and served as chair of the British chapter from 2000 to 2006. At the 1997 Congress in Nottingham he was responsible for the publications, one pre-printed and distributed to participants and one afterwards in the ICH Blue Book Series. He was an HJ Associate Editor from 2003 to 2007. Since his retirement from BGS, he has worked part time as IAH’s Executive Manager, leading the Secretariat team in its support for all parts of the association. During this time he has been involved in developing numerous new initiatives and frequently representing IAH externally as an ambassador for IAH and for groundwater. In his response, John said that in many ways he was lucky to have been in the right place at the right time when the opportunity to become IAH Executive Manager presented itself. He was grateful to the broad IAH membership for making this job so enjoyable and to Council and Executive for such a productive working relationship, and he particularly thanked the Secretariat team for their efforts and support since 2008.

COUNCIL MEETS TWICE IN MONTPELLIER

The outgoing council met for its customary business meeting on the day before congress and the new council met briefly on the last day to get their work underway and consider priorities for their attention as the baton of managing IAH is passed on.

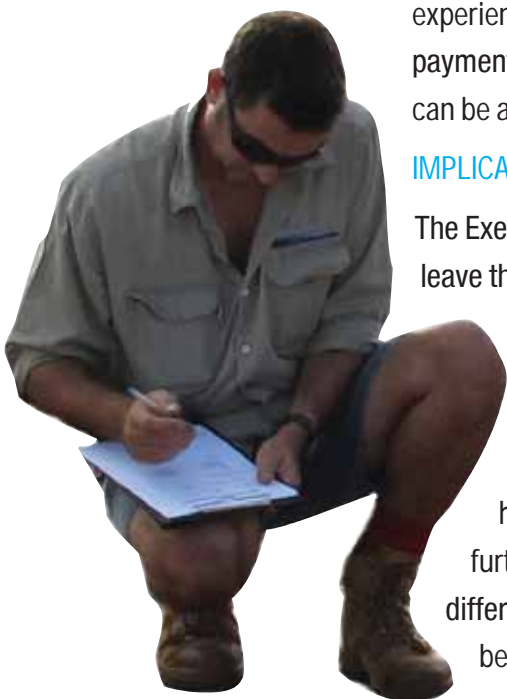
FINANCIAL PERFORMANCE REVIEWED

Background information for the discussion of future plans is provided by the report and financial statement for the previous year and the half-year report of the current year. The overall deficit for 2015 of €53,000 included €14,000 of foreign currency losses, leaving the association with funds of €133,000 in bank and building society accounts. A gradual decline in our reserves over recent years reflects the increased use of resources for charitable and educational activities and member services. This obviously cannot be sustained continuously, and efforts are underway in 2016 and planned for 2017 to increase the association's income to maintain and expand our activities.

Taking note of the 2015 deficit, and with regard to existing commitments, the Executive agreed to look very hard at operating costs and an effort was made at its meeting in February to set a balanced budget for the year and this was reaffirmed by the Executive at the end of June. Total income at the half way point in the year was €181,500, well above the €161,000 at the same time last year. Membership stood at 4091 at the end of August 2016, compared to 4062 at the same time in 2015. Total expenditure for the half-year was €105,000, up from €98,000 at the same time last year. Bank balances at the end of June indicated that we had €202,000 in our combined HSBC bank and Paypal accounts. From the half-year figures past experience shows it is not easy to accurately predict the year-end outcome (the largest payment to Springer for the journal is still to come) but a deficit of less than €10,000 can be anticipated for 2016.

IMPLICATIONS OF THE UK'S BREXIT VOTE

The Executive Manager reported briefly on the impact of the recent UK referendum to leave the European Union, which has financial and other implications for all, including international associations. Financial uncertainty before the vote turned into significant weakening of sterling from 1.3 euros to the pound to 1.1 immediately afterwards and the rate at the time of the council meeting was 1.2. Financial indicators had stabilised somewhat at that time, but the pound has declined sharply in value since and UK interest rates have been cut even further. Uncertainty will remain during the period of negotiations and opinions differ greatly as to the economic and financial impacts once the terms of departure become clear.



COUNCIL IN TRANSITION

In preparation for the change of councils following the election (see page 2), activities related to the Forward Look, education, income diversification, publications were extensively reviewed. In particular, the opportunity was taken by Secretary General Shammy Puri to present a mid-term review of IAH's Forward Look, summarising where good progress had been made and activities had been completed or were well underway, and suggesting to the new council activities which are still needed and require further effort and resources. An important task for the outgoing Council was to discuss and decide on a proposal for a membership fee increase for 2017 (see below).

All six new members of Council were in Montpellier and were able to attend the first meeting. New president António Chambel welcomed them to Council and he and IAH's Executive Manager explained the way that Council works and how Council, Executive and Secretariat link and communicate. The new council took its first decision; approving a recommendation from books editor Nick Robins for an honorarium for authors and editors (see page 31). The tasks of regional vice presidents were explained, in particular to nurture and support national chapters in their region. For its part, the Secretariat pledged to support them in their work and we would urge IAH members to do so as well.

JOHN CHILTON

MODEST FEE RISE APPROVED BY COUNCIL

As reported, Council approved a modest increase in membership fees for 2017. A paper prepared by the Secretariat setting out trends in costs and income, comparisons with other societies and external pressures such as inflation, currency fluctuations and the possible impact of the UK's Brexit vote pointed towards a headline increase of five euros. Some on council were in favour of a large rise on the basis of their perceptions of affordability and on comparison with other societies. There were, however, strong arguments the other way, and a recognition that we have previously raised our fees in small increments. Some members of council were very cost-conscious on behalf of their regions. Others drew attention to the point made in the paper that we are in a time of very low inflation in the UK where the majority of our costs are and that a big increase would look odd against that background. The balance between a big increase and not discouraging new members or renewals was also highlighted.

After a serious and lengthy discussion in council, approval was given to increase the main fee rate for high income countries from 80 to 83 euros, an increase of just under

4%. Middle income rates will be increased from 54 to 56 euros, transitional from 47 to 48 and low income from 39 to 40 euros. In line with IAH's current desire to increase student membership, it was agreed not to increase those rates and retired member fee rates will also not be increased. The increasing costs of journal production were also discussed, based on a separate paper prepared for Council and, again after considerable discussion, it was agreed to maintain the differential between paper and online journal access at 10 euros. Corporate membership fees have not been raised for some time and these will be raised for 2017 by a modest percentage.

By the time you read this, the new fees will be displayed on the IAH website and the renewal process will have been initiated. Overall, these increases will form only one component of our efforts to build up IAH's income and restore our reserves and we will certainly need to continue our efforts to recruit new members and encourage existing members to renew.

JOHN CHILTON, SECRETARIAT

[continued over...]

IAH 60TH ANNIVERSARY



National Honorary Members

IAH established the award of Honorary Member in 1982 to recognise those who have given exceptional services to the association over a long period and the 2016 recipient was Ghislain de Marsily (page 18). At its 2000 congress in Cape Town, IAH recognised 158 Millennium Members who had been long-time members of the association, many of whom had also given considerable service to IAH over the years. As part of the 60th anniversary celebrations, IAH wished to a) follow up the Millennium Members to ascertain how many were still active in IAH and b) encourage its chapters to recognise at national level the contributions of some of the association's most devoted and supportive members.

Thus, earlier in the year, chapters were offered an opportunity to appoint as National Honorary Members (NHM) those who had actively supported and promoted IAH at national level over substantial periods of time. The original proposal envisaged that chapters would take over the membership costs of such members, perhaps at the retired member rate. This proposal received a mixed response and also drew attention to the present limited benefits of retired membership compared to the fee rate. This was discussed by Council in Montpellier who agreed on a need to review the status of retired members.

In the meantime, and reflecting a desire to celebrate the 60th anniversary by national meetings and actions, a number of chapters have taken up the initiative to recognise exceptional contributions by awarding NHM. At the meeting of national chapters in Montpellier (page 28), representatives of Hungary, Spain and Italy explained that they had done this at recent meetings of their chapter. It was agreed that this was a matter

to be decided at chapter level and that IAH centrally should not lay down strict criteria or rules but provide overall guidance. The general approach should be to recognise a small number of older members, or former members who might have left the association but are still quite active or those who are still members. It was suggested at the meeting that recognition of NHM could be made without covering their fees. It was a good way to encourage colleagues with a lot of experience to remain involved in IAH. At the time of writing, further guidance is being prepared. At the national chapters' meeting, representatives of Portugal, Poland and Croatia reported that they were planning to recognise NHMs at anniversary meetings and we have since heard that Ireland and Germany will also do so. We look forward to reporting further on this worthwhile initiative.

WILLI STRUCKMEIER AND JOHN CHILTON

Your stories and photos wanted

IAH's past, present and future is thanks to the amazing activities and support of its members. We are presently sifting through all the contributions received from around the world and we are still happy to receive more... Please pass on your stories, memories and photos - however old and more recent. All contributions will be gratefully received.

 email: 60years@iah.org

IAH MENTORING SCHEME



The call for registrations announced in the August newsletter is being closed. Early in the New Year we will be looking at those we have received to make some new “matches”, including with some of the un-allocated reserves we have been holding since the last round of registrations. We can report that a number of active one-to-one mentoring partnerships are now active. The mentoring scheme is taking off after a slow start and we hope to be able to report further development during 2017. Thanks to those mentors who are already actively supporting members early in the careers by providing advice and the benefit of their own experience.

SECRETARIAT

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

LATEST IN THE IAH BOOK SERIES...

Selected Papers on Hydrogeology (IAH-SP)

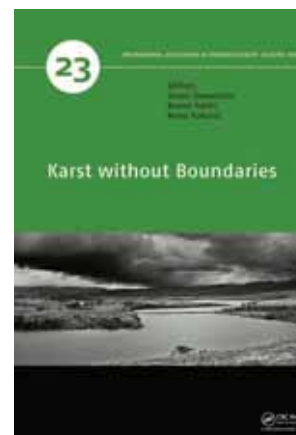
Series editor Nick Robins, formerly of British Geological Survey, Wallingford, UK



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/TFAIHICH>
<https://www.crcpress.com/IAH---Selected-Papers-on-Hydrogeology/book-series/TFAIHSEPAHY>
<https://iah.org/members/book-discount>

WRI-15, ÉVORA, PORTUGAL



The 15th Water-Rock Interaction International Symposium was held in Évora, Portugal, a UNESCO World Heritage City, from 16 to 21 October 2016. Chaired by José Manuel Marques of the Executive of the IAH Portuguese Chapter (AIH-GP), under the auspices of the Water-Rock Interaction Working Group of the International Association of Geochemistry, the meeting proved to be an outstanding success. The symposium covered the most important topics in the field of water-rock interaction, including trending ones judging by the large number of worldwide students it attracted. Some of the major topics covered were:

- water-rock interaction and ore deposits;
- water-rock interaction ascribed to geological sequestration of CO₂;
- thermal and mineral waters;
- water-gas-rock interaction;
- groundwater contamination.

The content proved to be of a very high scientific level both as regards oral and poster presentations as well as inducing great networking interaction, as witnessed and commented on by participant feedback. The scientific committee received 319 extended abstracts which resulted in 140 oral presentations, 132 posters and 23 e-posters.

The symposium also included eight keynote presentations on the most important current issues in the field, presented by renowned scientific names from around the world and a special session dedicated to the late Mike Edmunds was also a highlight. More than 300 delegates from over 33 countries registered for the Symposium.

The mid-week field trips were very popular and led by senior Portuguese researchers and scientists and covered topics such as hyperalkaline mineral waters ascribed to serpentinization (Cabeço de Vide), the historical Lousal Pyrite Mine and the hardrock aquifers of the Évora region. The symposium culminated in a post field trip to the islands of the Azores, with the attendance of 20 senior researchers and focusing on the main topics of thermal and mineral waters and high temperature geothermal energy. IAH President António Chambel was present (in his home city) as one of the organizers of the event and Teodora Szócs, new IAH Vice-President for Finance and Membership was also there. The photo shows the group of participants on the hardrock field visit which António led.

[ANTÓNIO CHAMBEL](#)

XIII ALHSUD CONGRESS OF HYDROGEOLOGY

The XIII ALHSUD Congress and first Mexican Congress of Hydrogeology took place in Merida, Mexico in August, attracting 302 participants, mainly from Latin-America and particularly from Mexico. Four keynote and 36 invited speakers together with 95 oral presentations and 14 posters were presented. There were three pre-congress courses: Karst hydrogeology (28 participants); application of mathematical models in hydrogeology (25 participants); and groundwater management in the scope of IWRM (22 participants). Financial support was obtained for 33 congress participants and 32 course participants. The congress stressed cooperation between Latin-American countries, exchanging experiences from individuals working in associations, universities and multilateral consortia. Research on current issues related to the operation of shale-gas and fracking technologies continues to be controversial in several countries, and was also discussed.

The next ALHSUD Congress will be in 2018 in Salta, Argentina. Cooperation of ALHSUD with Brazil was reinforced, with a view to a possible congress convened jointly with IAH in Brazil in 2020. Cooperation between the IAH Chapter in Mexico and the ALHSUD Chapter in Chile was established, providing ideas related to the Water Code in Chile, and relations between the IAH Chapters in Colombia and Mexico were renewed. ALHSUD also received solicitations to support community hydrogeological investigations in Ica, Peru, as part of its social responsibilities within the region. Many postgraduate students participated in the courses and the congress, which was an overall success, putting the Latin-American hydrogeological community in contact once more. Representing IAH, António Chambel was able to make progress on the discussions with ABAS about establishing an IAH chapter in Brazil (see page 29) and with ALHSUD on strengthening future collaboration in the region.

ANTÓNIO CHAMBEL

EUROKARST

In 2014, the Universities of Malaga, Besançon and Neuchâtel combined efforts to launch the Eurokarst series of conferences. The first was held in Neuchâtel, Switzerland, in September with about 200 participants from 25 countries all over Europe and the World - from South Korea, to Iran and Brazil. With five keynotes, three parallel sessions and two large poster sessions, the conference covered a large range of topics from meteorology to modelling and understanding large and complex systems. A book will be published by Springer containing 30 papers presented during the conference and entitled: "Eurokarst 2016 Neuchâtel: Advances in the Hydrogeology of Karst and Carbonate Reservoirs". The IAH karst commission was particularly well represented and held its annual meeting, awarding IAH Young Karst Researcher Prizes to Lorraine Dewaide (University of Namur), Tímea Havril (Eötvös Loránd University) and Axayacatl Maqueda (University of Neuchâtel).

The conference was followed by two well attended field trips. One to the Jura focused on the Milandre site where many experiments have been performed over the past 25 years. The second day was devoted to the protection of groundwater resources. The second field trip brought participants to the glaciated alpine karst system of Tsanfleuron-Sanetsch to discover the links between glacier retreat due to climate change and the impact on groundwater resource regimes and availability in a very spectacular alpine environment.



PHILIPPE RENARD



www.eurokarst.org



NEW MEMBERS

A welcome to the following new members who joined our Association in the period
22 June - 26 October:

AUSTRALIA

Mr Ilaitia DOKONIVALU
Mr Nicholas-Tyson KRUGER
Amy CARLINO
Ben MILILLI
Sanna PETAJAJARVI
Jonathon TAIT
Trac TRAN
Mr Ralf-D SCHROERS
Zibonele BHEBHE
Clem DUVERT
Anurdha Karavita ARACHCHI
Xuyan WANG
Mr Craig BUNTING
Mr William HOWCROFT
Zoe DOLLING
Andrei WOINARSKI
Adriaan HAASBROEK
Fatemeh JAFARI
Monika MARKOWSKA
Stacey PRIESTLEY

BELGIUM

Mr Amaël POULAIN

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

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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>

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.



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NATIONAL CHAPTERS MEET IN MONTPELLIER

Since the first such meeting in Krakow in 2010, a meeting of national chapter representatives has become a regular congress feature. New IAH President António Chambel warmly welcomed 35 participants from 26 chapters to the meeting. Chapters were reminded of the three options for providing them with a web presence, i) a link to an existing site from the main website, ii) a simple landing page for the chapter or iii) a fully-developed subsite, the most recent of which was for Portugal. The question of a standing committee of national chapter representatives was raised, as it had been in previous years. After some discussion, it was agreed that Raquel Sousa (Portugal) would contact Judith Flugge (Germany) see how this could be taken forward and Sophie Vermooten (Netherlands) also agreed to support this effort. We are grateful for their offers.

The introduction of National Honorary Members to help celebrate the 60th anniversary was discussed and is reported on page 22. Chapters were encouraged to provide further support for the sponsored membership scheme if they were able and to increase their efforts to persuade members to renew. Ireland and Australia have agreed to increase their sponsorship and others are thinking about it. Recruitment of new members and retention of existing members is an important task in which chapters should play a major part. The new regional vice presidents will also be expected to look at membership recruitment and retention in their regions. However, IAH needs to improve member benefits and have fee rates and benefits that will encourage student members.

The meeting received reports of activities from national chapters, with particular regard to the 60th anniversary of IAH, some of which are reported elsewhere. Ireland celebrated 40 years in the same year that IAH celebrated 60, with its annual meeting. Spain had organised one anniversary meeting and will organise another. Slovakia will hold a meeting to celebrate 20 years of IAH there, and Hungary will celebrate 10 years of their chapter. Croatia was planning a meeting on the history of hydrogeology there which would also nominate national honorary members. Portugal will celebrate in November and honour its oldest member. Poland will organise a national conference in October which will include the general assembly and 100 to 150 participants are expected. Morocco will hold a meeting in Rabat associated with the COP22 meeting on climate change. We look forward to reporting some of these in future newsletters.

JOHN CHILTON





Brazil

We are very pleased to announce that IAH now has a new chapter in Brazil. Interest in developing a chapter in Brazil dates back to an original initiative between Aldo Rebouças and Bob Farvolden many years ago. After a period of discussion over the last few years, IAH has come to an agreement with the Brazilian Groundwater Association – ABAS – that it should constitute the IAH national chapter.

The agreement was confirmed during the recent 19th ABAS Congress and, following the visit of president of the new chapter Everton de Oliveira to Montpellier, was also announced at the Annual General Meeting of IAH on 26th September. We are pleased that these efforts should have come to fruition during our 60th anniversary celebrations and we look forward to a long and productive partnership, working with ABAS to extend the IAH presence in Brazil and to establish joint activities including conferences. The picture shows ABAS colleagues from around the country

who met during the ABAS congress for the foundation meeting, to sign the document that officially launched IAH-BR and to ratify the election of Everton de Oliveira as president and Luiz Amore our outgoing regional vice president as secretary.

 everton@hidroplan.com.br



Poland

The Polish National Chapter of IAH is run by a Council of five (President, Vice President, Secretary and two members) elected every three years according to the new changed constitution. Under the new constitution, all members of the management committee (Council) can normally serve for three years term beginning on the day of election and for no more than two terms consecutively.

Nominations were sought in August and online voting took place in September. Thirty five out of 43 members voted and the results were announced at the General Assembly held in Zakopane in October. The new president is Dr Adam Porowski, vice president Professor Jacek Różkowski, secretary Dr Anna Kuczyńska and members Professor Ewa Krogulec and Dr Anna Żurek. The General Assembly nominated Professors Andrzej Witkowski and Stanisław Staśko as national honorary members. We look forward to working with the new council and offer our congratulations to Andrzej and Stanisław.



Great Britain

The 60th Anniversary was celebrated in September by a two day conference at the University of Birmingham co-convoked by the British National Chapter and the Hydrogeological Group of the Geological Society. The meeting, themed “Managing our Hidden Asset”, also contribute to the Society’s Year of Water. 180 participants enjoyed a full two days of excellent oral and poster sessions and commercial exhibition and the stimulating 2016 Ineson Lecture given by Professor Georg Teutsch of the Helmholtz Centre in Leipzig, Germany. The meeting also featured the re-launch of Dick Downing’s classic work Groundwater: our hidden asset as an e-book, which will help to bring the importance of groundwater to a new and digital generation.

 <http://www.iah-british.org/>

44TH IAH CONGRESS



Update from Croatia

The Croatian National Chapter of IAH is working on preparations for the 44th IAH Congress "Groundwater Heritage and Sustainability" to be held at the Dubrovnik Palace Hotel from 25th to 29th September 2017. The Hotel nestles on the scenic seafront between a pine forest and the turquoise coastal waters of the lush Lapad Peninsula and just a few minutes' by car or bus from Dubrovnik Old Town. Congress chair Tamara Markovic reports on preparations.

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. Dubrovnik is also, without doubt, one of Europe's most fashionable conference destinations. The most popular sights are: the City walls - Dubrovnik's most important feature and the most visually dominant symbol of the town; an impressive Middle Age construction where the corner towers of Min eta, Revelin, Bokar and Sveti Ivan create the city's famous and historic shield; the Rector's Palace - "Obliti privatorum publica curate" or "Forget your private business, concern yourself with public affairs". This remarkable inscription can be found above the entrance of the Palace, the most important public building in Dubrovnik and a site that was once the government headquarters and the Rector's residence; Stradun (Placa) - is the main "artery" of the city, stretching between the two town gates of Pile and Plo e and inviting you to walk it and feel its rhythm.

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.

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 community of Croatian hydrogeologists invites colleagues to attend the congress and share their ideas, experiences and knowledge.

The congress website has plenty of information about the congress, the venue and region, and the first circular can be downloaded. Abstract submission opened on 15th November and closes on 15th March 2017. Registration opens during December.



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

CALL FOR NEW BOOK PROPOSALS

AUTHORS AND EDITORS TO RECEIVE HONORARIA

The two IAH Book Series, the Blue Books or International Contributions to Hydrogeology (ICH), and the Green Books, Selected Papers (SP), both need authors and editors to come forward with proposals for new books. We need to be publishing regularly in order to maintain the two series of books but our collective output has been somewhat erratic in recent years. To make publishing in the IAH Book Series more attractive to potential authors and editors, Council agreed in Montpellier that an honorarium can be paid to help allay costs. This could be particularly attractive to authors who are retired and have time to work on a book but no longer have institutional support. In addition, our publisher, CRC Press/Balkema, has applied for ISSN (International Standard Serial Numbers) at the Library of Congress, and as soon as these are received will apply for a listing at the Web of Science. This will make the book series more attractive for academics who need to track their citation status and will make the books more accessible to electronic searches. We hope that these two actions will help the book series to prosper.

Potential authors and editors who would like to propose a new book in either series should in the first instance contact our Books Editor-in-Chief Nick Robins at books@iah.org. Nick will be pleased to hear from you and will help prepare proposals for onward transmission to our publisher. Remember – without your support there would be no IAH Books Series.

Off course, you also have to buy the books!
NICK ROBINS AND JOHN CHILTON

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



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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

2017 - SELECTION

20-25 March – Havana, Cuba

CongresoHidraulic Cuba

XIII Congreso Internacional de Ingeniería Hidráulica y el IX Seminario Internacional de Uso Integral del Agua. El mundo sigue confrontando grandes retos para la supervivencia de la especie humana, sufriendo los efectos del cambio climático, el irresponsable comportamiento humano y el uso irracional e ineficiente de los recursos naturales en nuestro planeta. Aún se derrocha y contamina el agua y se crean situaciones críticas que originan conflictos en numerosos países. Los recursos hídricos escasean en muchas regiones y se requiere una mayor cultura del agua, que aporte su ahorro y la preservación de su calidad, el reúso de la misma y la aplicación de fuentes de energías renovables con manejo sostenible. Convocamos nuevamente a investigadores, proyectistas, académicos y a todos los especialistas afines a la hidráulica a presentar sus trabajos y experiencias en esta lucha por alcanzar un uso más racional y eficiente de este recurso tan vital. Cuba les acogerá con su habitual hospitalidad para desarrollar jornadas provechosas de fructífero intercambio y colaboración. Organised by La Sociedad Nacional de Ingeniería Hidráulica de la UNAICC, el Instituto Nacional de Recursos Hidráulicos y la Universidad Autónoma Chapingo de México.

<http://www.congresohidraulicacuba.com/>



26-31 March – Vila de Luso, Portugal

MineWat2017 – 2nd International Multidisciplinary Conference on Mineral Waters: Genesis, Exploitation, Protection and Valorisation

The MinWat 2017 Conference will represent an exceptional opportunity to update knowledge about each MinWat core investigation activity, among Earth Scientists from National and International Institutions who have already been involved in R&D Projects focused on related MinWat research. The three main scientific topics of the conference will be: A. Hydrogeology, hydrogeochemistry and hydrogeophysics – Origin, protection and management of mineral and thermal waters; B. Bottled waters – Market and demand; C. Mineral and thermal waters – Health issues, balneology, balneotherapy and balneotechnics. Organised by IAH Commission on Mineral and Thermal Waters (IAH-CMTW), IAH National Chapter of Portugal (IAH-GP), Centre for Natural Resources and the Environment (CERENA), Instituto Superior Técnico (IST), University of Lisbon, European Federation of Bottled Waters (EFBW), CPL Meetings & Events.

<http://www.minwatportugal2017.org/>



25-29 September 2017 – Dubrovnik, Croatia

44th IAH 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 IAH National Chapter of Croatia.

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



<http://iah.org/events>

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

CONFERENCE LISTING

