

International Association of Hydrogeologists
U.S. National Chapter
Fall 2019 Newsletter
Editor: Gary Robbins





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Cover Photo: The well in the White Tower of the Tower of London. It is over 12 meters deep and was constructed around 1100 when the tower was first built. The day I took the photo the water level appeared to be about 4 or 5 meters deep. In 2005 the well was drained. They report to have found cannonballs and a pair of old boots. Photo by G. Robbins

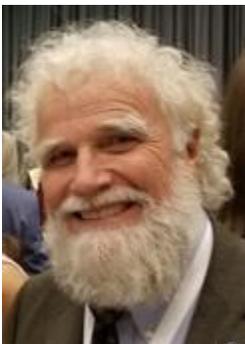


IAH/U.S. NATIONAL CHAPTER: EXECUTIVE COMMITTEE 2017-2019

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A Note from the Chair – *Jim LaMoreaux*



With the year being about three quarters of the way over we still have many exciting activities to come. The highlight of the year will happen September 22-27 when the IAH 2019 International Congress will be held in Malaga, Spain. Prof, Bartolomeo Andreo, President of the Spanish National Chapter, and his team have worked hard to organize an excellent conference. Additionally Malaga is a beautiful place for you and your family to enjoy the Spanish Riviera.

Much has occurred since our Spring Newsletter and there are several other important meetings before the year ends. If for some reason you are unable to attend the IAH 2019 Congress, the USNC will hold its biannual meeting at GSA 2019 in Phoenix September 22-25. To stay updated or to become involved in USNC activities plan to attend the biannual meeting scheduled for September 22 from 5:15 to 6:45 pm in the Ahwatukee Room at the Sheraton Phoenix Downtown. Afterwards we will go to dinner at a nearby restaurant. Everyone is invited to join us for the meeting and for dinner. Recommendations for restaurants are welcome.

In regards to involvement we particularly encourage our young professionals to become more active. To this end we are also trying to expand their ranks. Andy O'Reilly with the help of Jenny Pittman is in the process of compiling a list of well qualified graduate students as candidates to receive one year memberships in the U S National Chapter (USNC). These young people represent future leaders of our organization and are automatically eligible to participate in the Early Career Hydrogeologists Network (ECHN). Please email Andy at aoreilly@olemiss.edu if you have suggestions for candidates or would like to help.

Speaking of ECHN, the USNC's team of young professionals is continuing its efforts to expand membership. They are also looking for volunteers to serve as liaisons for the Geological Society of America (GSA) regional section meetings. Adam Milewski who has done an excellent job getting our group up and running is aging out and we are looking for existing officers to step up and other members to step into leadership roles. Please let us know if you are interested. Katie Markowich, ECHN Vice President, along with Andy Manning is organizing a session on Mountain Groundwater for GSA 2019 (see follow-up article for details). If any of you are interested in participating in this session or in serving as a liaison to GSA regional section meetings, please contact Katie at khmarkovich@email.arizona.edu or Adam at milewski@uga.edu. Look for the details on these and other activities on their Facebook page ([ECHN USA IAH](#)), or their website (echn-usa-iah.org).

Tim Parker is continuing to represent the USNC with the American Geosciences Institute (AGI). Clint Carney, who has worked diligently with Tim in this effort, has decided to pursue other career avenues. We wish to thank him and wish him well in his new endeavors. The IAH USNC is an Associated Society of AGI and as such our members are eligible for discounts at AGI



sponsored functions. Please take advantage of this benefit. Another benefit IAH has added recently is a reduced subscription price for Sustainable Water Resources Management. A 20% discount is now being offered to members. Jim LaMoreaux and Cliff Voss are Editor and Associate Editor, respectively, of the journal published by Springer.

Continuing to expand our contacts in the Americas we are reaching out to Joanne Thompson, IAH Vice President for North America, Diana Allen, President of the IAH Canadian National Chapter, Miguel Rangel Medina, President of the IAH Mexican National Chapter, and Carlo Molana Vice president of the Colombian National Chapter. Former USNC President Mike Wireman is helping professionals in Cuba research forming a Cuban National Chapter and attend IAH 2019 in Malaga. Another USNC Past President Vic Heilweil is making contacts in South America through his travels for USGS. If you are interested in or have contacts that would help further develop this outreach, please let us know

These combined activities have the goal of possibly organizing an IAH Congress in the Americas in 2022 or 2023. We are looking for volunteers who may want to spearhead this effort. IAH Vice President for Science and Programme, Dave Kreamer, has shared with us Guidance Notes for Organizing an IAH Congress to get a better idea of what is involved.

As you can tell from this [A Note from the Chair](#), many people are involved in keeping your national chapter running efficiently. I would like to thank all those mentioned above and many others for their efforts on the USNC's behalf. In this regard Dave Kreamer continues to serve in an ambassadorial role for the USNC carrying our torch internationally. See his article in here also. Let's keep working hard to make the rest of our year successful. Visit the USNC website at iah-usa.org to see how you can become more active. Please share this newsletter with your friends and colleagues and encourage them to become members and thank Gary Robbins for serving as our editor.

Jim

Wanted Articles About You



As the editor of the newsletter, I need your help. Our newsletter is all about informing you of what the organization is doing and providing you with other news in our field that you may find useful. Of course all that is interesting. But it is also an opportunity to get to know each other, to network and to further bond in our mutual love of this field. So I am asking you to help with the next newsletter. Send me a picture of you working with a brief description (name, company, where the picture was taken and what does the picture show you doing). Send me a brief article about some interesting place you are working or visited related to hydrogeology. Have some interesting groundwater related pictures? Send that with a description of who took the picture and where. How about a brief article about you for our Members News Section (see below)? Send material to Gary.robbs@uconn.edu See if you can beat this picture—One of the 11 aqueducts that



brought water to Rome from springs in the Apennines. Please consider contributing to the Spring issue.

IAH International News

IAH Karst Commission to Celebrate 50th Anniversary

The IAH Karst Commission (IAH KC) will mark its 50th anniversary with a celebration at the May 18-22, 2020 gathering "UNESCOKarst 2020: A Workshop on Sustainability and Community" that will be held at Western Kentucky University (WKU) and Mammoth Cave National Park. The meeting is being organized by the George Wright Society, the Mammoth Cave Area Biosphere Reserve, and WKU. Several other karst-focused, international science and conservation groups will be joining in the meeting, including the Karst Commissions of the International Geographical Union and the International Union for Conservation of Nature, the World Karst Mapping Project, and several UNESCO programs including the International Geoscience Program project IGCP#661, the International Hydrological Program, and the International Research Center on Karst. There will mid-week field excursions in and around Mammoth Cave National Park, as well as a selection of optional surface and cave trips the weekend before based at the Cave Research Foundation's Hamilton Valley Research Center just outside of the national park.

The IAH Karst Commission will honor lifetime achievement from three internationally prominent karst scientists, and be followed by a gala celebration and dinner at Lost River Cave. The large and beautiful cave entrance area to Lost River served as an underground nightclub back in the days before air-conditioning.

The deadline for abstracts and proposals for session/panel topics is November 30, 2019, and detailed information can be found at <https://www.unescokarst2020.com>.

During the preceding week, the 8th U.S. Geological Survey Karst Interest Group (KIG) workshop will be held May 13-15, 2020 at Tennessee State University in Nashville, Tennessee. Sessions will be May 13-14 and the third day (May 15) will be an optional field trip which will provide an excellent opportunity for attendees to experience the stunning karst terrain of the Cumberland Plateau in central Tennessee. Please see the website for details: https://www.usgs.gov/mission-areas/water-resources/science/karst-interest-group-kig-2020-workshop?qt-science_center_objects=0#qt-science_center_objects

Contributed by Christopher Groves



A Note from the IAH Vice President for Science and Programme



I hope this note finds everyone well. The IAH Executive Committee met in Evora, Portugal in June and worked for several days on many aspects of IAH. There are several things to report. Membership in IAH, (a registered charitable organization in existence since 1956), continues to grow. We are now over 4,300 members from about 130 countries with 46 national chapters, and 15 Commissions and Networks. We have added a new Network on Socio-Hydrology spearheaded by Viviana Re from Italy, there is a proposal for a new Groundwater Quality Commission led by Dan Lapworth of the British Geological Survey, and a Working Group of about 20 people has formed addressing the “Future and Frontiers of Hydrogeology” – contact me for this one. Many of our Commissions, Networks and Working groups will be meeting in Malaga, Spain at our Annual Congress from September 22 through 27. Everyone is welcome and encouraged to join in our Commissions, Networks and Working groups, see <https://iah.org/groups/commissions-networks> .

While our next upcoming Congress is in Spain, the 2020 IAH Annual Congress will be held in Brazil, 2021 in Belgium, and there are inquiries about hosting the 2022 and 2023 IAH Congresses from the US, China, and Switzerland. The IAH finances are in good order with changes due to the upcoming Brexit anticipated and hopefully covered with a varied portfolio.

On the educational front, IAH is translating its Strategic Overview Series <https://iah.org/education/professionals/strategic-overview-series> into Spanish, French, Portuguese, Chinese, and Hungarian. This series addresses many specific groundwater related issues, with papers 4 to 6 pages long, and has been used to inform decision-makers, the general public, students and professionals. On our educational page we have videos available with interviews of top hydrogeologists and presentations from Congress Keynote speakers <https://iah.org/education/professionals/watch-and-listen>. Our highly regarded journal, Hydrogeology, continues to move up in its number of citations and impact factor.

Please contact me if you have any questions. I hope to see you all in Malaga, Spain and hope this note finds you and your colleagues all doing well, following your interests and intellectual curiosities, and continuing to make the world a better place.\

Contributed by David Kreamer

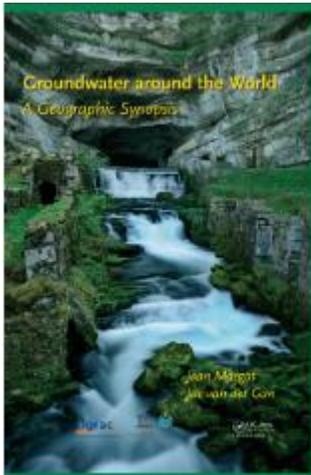


News from the IAH Canadian National Chapter

Interested in what they are doing up North? Read all about it at their website at www.iah.ca.

Other Groundwater News

“Groundwater Around the World” Available from IGRAC



The International Groundwater Resources Assessment Centre (IGRAC) has made the recent book “Groundwater Around the World - A Geographic Synopsis” available for downloading on its website. The 2013 textbook is written by Jean Margat & Jac van der Gun and supported by UNESCO-IHP and IGRAC. As IGRAC describes it: “This book presents a unique and up-to-date summary of what is known about groundwater on our planet, from a global perspective and in terms of area-specific factual information. Unlike most textbooks on groundwater, it does not deal with theoretical principles, but rather with the overall picture that emerges as a result of countless observations, studies and other activities related to groundwater in all parts of the world. The focus is on showing the role and geographical diversity of groundwater—a natural resource of great importance in daily life, but poorly understood by the general public and even by many water sector professionals.” A pdf file of the book can be downloaded from: https://www.un-igrac.org/sites/default/files/resources/files/Groundwater_around_world.pdf

Contributed by Lenny Konikow

UNESCO: WWDR 2019 “Leaving No One Behind”

UNESCO has released their 2019 World Water Development Report: “Leaving No One Behind.” The Foreword by Audrey Azoulay, Director-General of UNESCO, states “Access to water is a human right: it is vital for the dignity of each and every individual. The 2019 edition of the World Water Development Report focuses on the theme of “Leaving No One Behind”. It argues that fulfilling the human rights to safe drinking water and sanitation for all can also significantly contribute to the achievement of the broad set of goals of the 2030 Agenda for Sustainable Development: from food and energy security, to economic development and environmental sustainability. Based on the latest data, this report’s findings clearly



illustrate the need to make substantial progress towards delivering on the 2030 Agenda promise of reaching the most vulnerable.”

The Preface states, “The issues underlying both water-related goals and leaving no one behind intersect in several ways. Both water supply and sanitation, and issues of equality for all people and for specific disadvantaged groups in particular, are recognized through international human rights instruments and agreements. However, these have not been enough to bring about the necessary changes. To some extent, the issues share both root causes and similar challenges. The same people who are being left behind are those who could benefit most from improved access to water and sanitation. Improved access to water and sanitation, water management and governance, and the multiple benefits they bring, can contribute significantly to positive transformation for marginalized people. Benefits include better health, savings in time and money, dignity, improved access to food and energy, and greater opportunities in terms of education, employment and livelihoods.”



The Preface continues, “The report assesses the issues and offers potential responses from technical, social, institutional and financial perspectives, while taking account of the many different challenges faced in rural and urban settings. With the world witnessing the highest levels of human displacement on record, an entire chapter has been dedicated to the exceptional challenges faced by refugees and forcibly displaced people with respect to water and sanitation.”

The report can be downloaded from:

<https://unesdoc.unesco.org/ark:/48223/pf0000367306.locale=en>

Contributed by Lenny Konikow

Springer Offers Free Tutorial on Journal Manuscript Writing

Springer is offering a free online tutorial, Author Academy, on how to write scientific articles for journals and to select the best journal to which to submit them. To take the tutorial click on this [link](#).

Contributed by Jim LaMoreaux



AGI News

Earth Science Week 2019 Contests Invite Everyone to Participate



For this year's Earth Science Week (October 13-19, 2019), the American Geosciences Institute (AGI) is sponsoring four contests honoring this year's theme, "Geoscience Is for Everyone." This year's competitions will feature the traditional video, photography, visual arts, and essay contests:

- Teams and individuals of any age are invited to submit brief videos that tell viewers about their "Many Paths to Earth Science."
- The photo contest, also open to all ages, asks participants to show how people in their communities are "Exploring Earth Science."
- Open to students in grades K-5, the visual arts contest encourages children to depict "Earth Science and Me."
- Finally, students in grades 6-9 are eligible to enter the essay contest, "Why Earth Science Is for Everyone."

For all contests, entries may be submitted any time up to the Friday of Earth Science Week, October 18, 2019. These contests allow both students and the general public to participate in the celebration, learn about Earth Science, and compete for prizes. The first-place prize for each contest is \$300 and an AGI publication.

To learn more about these contests, including how to enter, visit <http://www.earthsciweek.org/contests>.

Contributed by Jim LaMoreaux

AGI Relaunches “Geoscience Currents” News Source with Expanded Focus

“What do geoscientists earn? Where do they work? What critical issues do they work to address?” According to a recent press release from the American Geosciences Institute (AGI), you can find out with “Geoscience Currents,” a free online information channel, relaunched this week by AGI with expanded coverage of research and issues facing geoscience professionals today. This longtime AGI publication, which has always provided vital insights into the latest data and statistics on the geoscience workforce, now encompasses a broader range of topics significant



to the geoscience profession, from energy and space exploration to agriculture and infrastructure.

“Geoscience professionals need accurate, up-to-the-minute data on their field and the challenges confronting it from day to day,” says AGI Executive Director Allyson Anderson Book. “The new, expanded format of Geoscience Currents offers exactly that in the form of data briefs, fact sheets, and in-depth case studies tackling workforce trends, career paths, and additional hot topics.”

Geoscience Currents is designed to support well-informed public policy and decision making with expert, impartial geoscience information. You can subscribe for free at: <https://www.americangeosciences.org/geoscience-currents>.

Contributed by Lenny Konikow

Geological Society of America and USNC Biannual Meetings

The 2019 GSA Annual Meeting will be held from September 22-25, 2019 in Phoenix, Arizona. There are a number of hydrogeology related technical sessions and a field trip exploring Northern Arizona’s springs and karst. To stay involved or become involved in USNC activities plan to attend the biannual meeting scheduled for September 22 from 5:15 to 6:45pm in the Ahwatukee A Room at the Sheraton Phoenix Downtown. Join us for dinner afterwards as well as to better get to know your colleagues.

Be sure to attend the IAH USNC sponsored GSA session “T140. Mountain Groundwater” convened by Andrew Manning (USNC treasurer), Lyndsay Ball, and Katherine Markovich (USNC ECHN Vice President).

Contributed by Katherine H. Markovich

IAH Volunteers Needed for GSA

IAH volunteers are wanted to serve as liaisons to the GSA sections. We would like someone from the various sections, all of which extend into either Canada or Mexico, to coordinate and encourage programs, sessions, etc. with international emphases. Contact either Jack Sharp or Andy Manning.

Contributed by Jack Sharp



Member News and Notes

Gary Robbins Awarded GSA Fellow

Gary has been elected as a **Fellow of the Geological Society of America**. He joined the society while a graduate student at Brown in the early seventies and has been a member ever since. During his long tenure with the society he has been the New England Rep. to the Hydrogeology division and helped to organize groundwater related sessions at a regional meeting. He and his students regularly attend and present at the New England section meeting and periodically at the National meeting.



Gary on a recent trip to London, UK explored the ruins of the ancient Roman wall of Londinium. Although his passion is all things Roman, he is especially interested in the construction, operation and source of ancient Roman water supplies. The wall is largely composed of Kentish Ragstone which is a dense, gritty, Cretaceous limestone.

Alexander (Lex) van Geen Awarded IAH-US International Service Award

Dr. Alexander (Lex) van Geen of the Lamont-Doherty Earth Observatory (LDEO), Columbia University, has been selected to receive the 2019 International Association of Hydrogeologists U.S. National Chapter's International Service Award. The Award recognizes the efforts of hydrogeologists based in the United States who have shown an outstanding commitment in assisting the international community with groundwater-related needs.



Lex is receiving the International Service Award in recognition of his critical work and leadership in studying the arsenic crisis in south and southeast Asia. Tens of millions of people in the region are exposed to geogenic arsenic in alluvial aquifers along rivers draining the Himalayas, and long-term ingestion of arsenic in drinking water can result in a host of serious health ailments. Since 2000, Lex has guided a team of researchers in Earth sciences, engineering, public health, and social sciences seeking to understand mechanisms controlling the arsenic contamination and its health impacts, and to develop holistic, practical solutions. This work started at the village scale in Bangladesh and has extended to metropolitan Dhaka, Vietnam, Myanmar, Nepal, and India. The team's work has encompassed spatial and temporal variability of arsenic in



groundwater, new sampling and analytical techniques (including field test kits and mobile phones), controls on arsenic mobility in groundwater, pollution by latrines and poorly completed wells, impacts of metal(loid) exposure on health and child development, performance of arsenic-removal systems, and promotion of well-switching and community wells. The foundational importance of Lex's research and effectiveness in applying it to improve public health is demonstrated in his impressive record of publications in a wide range of scientific, medical, economic, and public policy journals. As of January 2017, Lex had authored or co-authored more than 100 peer-reviewed journal articles pertaining to water-quality problems in developing countries, with 15 of these being cited over 200 times. Lex has also sought to increase global awareness of the arsenic crisis in southern Asia by writing pieces for and being interviewed by the New York Times, International Herald Tribune, BBC, Scientific American, The Economist, and other popular media. Finally, he has spread his passion for improving global public health by mentoring 30 graduate students at Columbia and institutions elsewhere in the USA, France, India, Pakistan, Mexico, and China, as well as numerous undergraduates and high-school students. Lex was nominated by Dr. Alan Fryar of the University of Kentucky.

The Award will be presented to Lex during the Hydrogeology Division Luncheon and Awards Ceremony at the Geological Society of America Annual Meeting in Phoenix, Arizona on Tuesday, September 24th. We hope you can join us for the presentation.

Congratulations Lex!

Contributed by Andrew Manning

Vicki Kretsinger Quoted in IAH Alert



Vicki who does an excellent job as USNC Secretary and taking care of our website was quoted in the August IAH Members Alert. To quote— “We especially liked Vicki Kretsinger’s points about the importance of sharing our collective knowledge and experiences from across the world – and how being a member of IAH can help this no matter where your day to day work is carried out.”



Jim LaMoreaux Attended the SADC Groundwater Conference



The second annual South African Development Community (SADC) Ground Water Management Institute Groundwater Conference was held on Sept. 4-6 in Johannesburg. IAH's South African National Chapter was a cosponsor. Sustainable Water Resources Management published by Springer and edited by Jim LaMoreaux will publish a thematic issue of expanded papers from presentations at the conference. Dr. Modreck Gomo (far right) will serve as Guest Editor. <http://sadc-gmi.org/>

PELA Environmental Education Programs

PELA GeoEnvironmental (PELA) wraps up their summer internship program with the University of Malaga (U of M). Isabel Gamallo is in the UNESCO Water Resources Master's Program there. This is PELA's 8th year hosting an intern from this program. Isabel will now return home to make her thesis presentation base on her work with PELA. IAH's Spanish National Chapter President Dr. Andreo Bartolome is Program Coordinator.



PELA GeoEnvironmental is the West Alabama Regional Chamber of Commerce Adopt-a-School Partner for Rock Quarry Elementary. To show the teachers and staff their appreciation, they surprised teachers with fresh coffee and donuts! PELA looks forward to helping Rock Quarry work toward their Science, Technology, Engineering, and Math (STEM) certification this year.



The 16th Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst will be held April 20-24, 2019 in Puerto Rico. PELA is a cosponsor of the conference of which Jim LaMoreaux is a cochairman. Conference topics include: Karst Development & Mapping, Pro-Active and Remedial Engineering in Karst Terrain, Karst Water Resource Management and more. For more information on the program, field trips and workshops: <http://www.sinkholeconference.com/>

Contributed by Susan LaMoreaux

The 46th IAH CONGRESS MALAGA SPAIN

**46TH IAH CONGRESS
MALAGA 2019**

**GROUNDWATER MANAGEMENT AND GOVERNANCE
COPING WITH WATER SCARCITY**

22nd - 27th SEPTEMBER 2019

MALAGA - SPAIN

iah
International Association of Hydrological Sciences

CEHYUMA
CENTER OF HYDROGEOLOGY
OF UNIVERSITY OF MALAGA

**UNIVERSITY
OF MALAGA**

UNESCO
United Nations
Educational, Scientific and
Cultural Organization

IAEA
International Atomic Energy Agency

igrac
International Groundwater Resources Assessment Centre

The Congress is a contribution
to the 8th phase of the UNESCO
International Hydrological
Programme (IHP-VIII, 2014-2021)

See you there!

Gary