



# The Hydrogeologist

Newsletter of the GSA Hydrogeology Division

Summer 2023 Issue 108

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*We hope to see you in  
Pittsburgh in October  
for GSA Connects 2023!*



Photo: David L. Lawrence Convention Center

GSA Connects 2023 will be in Pittsburgh, Pennsylvania. This year's meeting will be fully in-person. The themes for the meeting this year are Diverse Science for a Sustainable Future and Climate and Energy Transition. Pre-meeting field trips and short courses will be held Thursday, October 12<sup>th</sup> through Saturday, October 14<sup>th</sup>. The icebreaker reception will also take place on Saturday, October 14<sup>th</sup>. The formal meeting will be held from Sunday, October 15<sup>th</sup> through Wednesday, October 18<sup>th</sup>, and post meeting field trips will be run through Thursday, October 19<sup>th</sup>. Below are some weblinks to help you prepare for the meeting.

- [Submit an abstract here](#)
- [Register for the meeting here](#)
- [Book your hotel room here](#)
- [Check out an overview of the meeting schedule here](#)
- [Review important meeting dates and maps of the meeting venue here](#)

The Hydrogeology Division is sponsoring or co-sponsoring over 30 technical sessions at the meeting (p. 3). We encourage you to help make the sessions a success by submitting an abstract. The abstract submission deadline is July 25<sup>th</sup>. As usual, there will be several Hydrogeology Division events on the Tuesday of the meeting including: the Division Awards Ceremony, the Division Business Meeting, the career networking and mentoring event for students, the Birdsall-Dreiss Distinguished and LaMoreaux International Lecture, and the student reception. Additionally, we are pleased to host the National Groundwater Association Darcy Lecturer again this year.

## IMPORTANT DEADLINES FOR GSA CONNECTS 2023

- July 25<sup>th</sup>: Abstract submission deadline
- September 6<sup>th</sup>: GSA Sections travel grants submission deadline
- September 13<sup>th</sup>: Early registration deadline
- September 20<sup>th</sup>:
  - Registration cancellation deadline
  - Student volunteer cancellation deadline
  - Housing deadline for discounted hotel rates



Chris Gellasch,  
Chair, GSA  
Hydrogeology  
Division

## Chair's Corner

Welcome to our second newsletter of 2023. I hope you are having a good summer and spending some quality time recharging and/or doing some interesting professional activities. Summer for me means doing fieldwork with students, catching up on some projects, and spending vacation time with my family to recharge. Below I will outline some important events and other division business.

Your Hydrogeology Division management board is hard at work planning for the 2023 GSA Connects Meeting in Pittsburgh and this newsletter is filled with details about that meeting. Note that this year the meeting is back to 100% in-person with no remote options. We have more than 30 sessions sponsored or co-sponsored by the Hydrogeology Division this year so there are variety of sessions for everyone. The deadline for abstracts is July 25th so be sure to submit an abstract to a session before then. A reminder that earlier this year we updated the criteria for T144. Showcase of Undergraduate Research in Hydrogeology (Posters) so that recent graduates are eligible to present their undergraduate research. The top three posters in that session will be awarded cash prizes by the division.

As usual, Tuesday will be the big day for the Hydrogeology Division at GSA Connects. After the positive response the past two years, the division awards ceremony at GSA Connects will remain a non-ticketed, no-host (bring your own lunch) event to make it more accessible to everyone. Come and see all of our award winners, including the new Schwartz Award for Excellence in Mentoring and Education and the first Dr. Thomas C. Winter Graduate Student Research Award. A list of all of our division award winners is available in this newsletter. The awards ceremony will be followed by the division business meeting and then the student mentoring reception. This year's Birdsall-Dreiss Distinguished Lecturer and LaMoreaux International Lecturer is Kenneth Belitz from the Water Resources Mission Area of USGS. Be sure to attend his presentation in Pittsburgh on Tuesday afternoon. The division activities will conclude that evening with the popular Hydrogeology Student Reception filled with networking, fun, games, and fabulous prizes.

Summer means it's time for our division elections and other voting so be on the lookout in your email for your ballot. Richelle Allen-King has agreed to be nominated as our incoming Second Vice Chair. As I mentioned in the last newsletter, the Division Management Board created both the DEI Officer and Section Representative Coordinator positions and this summer we are holding a vote to amend the Division bylaws to make both elected voting members on our Management Board. We are also proposing an amendment that our student representative hold an elected position on the Management Board with voting rights to give students a stronger voice in how the division operates. Other proposed bylaws changes include rewording some sections to remove gendered language (i.e. he/she) and updating language regarding the Birdsall-Dreiss Lecturer so that the position can be shared between two hydrogeologists with similar research. The latter change is designed to allow a more diverse group of people to apply for the lectureship if their personal or professional responsibilities prevent them from giving a full slate of lectures during the 12-month lecture tour. This is one of our many DEI efforts being promoted in the Division.

It seems like my year as your Division Chair is flying by and before you know it, I will see many of you in Pittsburgh sharing science and catching up. I am honored to serve as your chair and ensure the Hydrogeology Division remains as strong and as vibrant as ever. I also appreciate the many others in the division who are working to make sure our division is as strong as ever and continues to improve. There are many ways (large and small) you can volunteer to help the Hydrogeology Division, so let us know if you are interested in helping.

Regards,

Chris Gellasch

### We Are Gathering Prizes for the Hydrogeology Division Student Reception at GSA Connects

The Hydrogeology Division is continuing with its long tradition of soliciting donations of books, software, gift certificates, small field gear, etc. to give away as prizes at the student reception at GSA Connects. If you have something to donate or a suggestion for a potential donor that we should reach out to, contact Tara Root at [troot1@gmail.com](mailto:troot1@gmail.com).

## Division Sponsored/Co-Sponsored Technical Events at GSA Connects 2023

- T12. Novel Stable Isotope Applications and Methods for Understanding Human Impacts to Elemental Distributions across the Atmospheric-Aquatic-Terrestrial Continuum
- T13. Characteristics, Reactivity and Role of Natural Organic Matter (NOM) in Elemental Cycling in the Environment
- T16. No Well Left Behind: Quantifying Impacts and Improving Management of Active, Abandoned, and Orphaned Oil and Gas Wells to Safeguard Air, Water, and Land Resources
- T17. Environmental Geochemistry and Health
- T20. From Drought to Flood: Variable Impacts from the Devastating 2022–2023 Atmospheric Rivers in California That Offer a Glimpse of Possible Future Climate Conditions and Effects
- T23. Research and Practice: Per- and Polyfluoroalkyl Substances (PFAS) Contamination in the Environment
- T34. Early Involvement in Geoscience Research Among K9–16 Students Can Ensure Sustained Growth of the Discipline (Posters)
- T39. Geoscience and Hydrology of Your Public Lands: STEM Internships, Research, Science, Mapping, Resource Management, and Education
- T42. Records of Quaternary Climate, Hydrology and Landscape Evolution in the Great Basin, USA
- T51. Lakes and Wetlands in the Drylands of Western North America: Late Quaternary Hydroclimate Reconstructions from Dryland Paleohydrology
- T72. From Coastal Lowlands to Shallow Shelf: Environmental Processes of the Coastal Critical Zone through Time and Space
- T82. What's in a Fault? Fault Structure, Deformation Mechanisms, and Why Fault Zones Matter to Society: In Honor of James P. Evans
- T88. Urban Geochemistry
- T96. Salinization of Freshwater
- T99. Non-Perennial Streams and the Fluvial System
- T100. Advancements in the Science and Management of Wildfire Impacts on the Critical Zone
- T104. Sources, Sinks, Transport, and Storage of Sediment in Fluvial Systems
- T123. Hydrology on Titan and Mars
- T125. Karst Hazards and Monitoring
- T126. Characterization of Karst Aquifers Using Chemical, Biological, and Hydrogeological Data
- T128. Karst Ecosystems and Biogeochemistry
- T129. Karst Hydrology and Hydrogeology
- T130. Karst Processes and Speleology
- T138. Coastal and Marine Hydrogeology in an Age of Rising Seas: From the Shore to the Oceanic Ridge
- T141. Arsenic, Fluoride, and Other Geogenic Contaminants in Groundwater: Advances in Application of Data Science, Machine Learning for Risk Assessment and Monitoring for Sustainable Mitigation of Associated Health Hazards
- T142. Achieving Groundwater Security across Local-to-Regional Scales in the Anthropocene
- T143. A Hydrogeologic Career Well Lived: A Session on the Research Topics of Ken Bradbury
- T144. Showcase of Undergraduate Research in Hydrogeology (Posters)
- T145. Advances in Managed Aquifer Recharge
- T146. Advances in Monitoring, Mapping, and Modeling Saltwater Intrusion and Groundwater Salinity
- T150. Advancing the Use of Geophysical Methods for Geological Mapping
- T158. Lakes of the World through Time and Space: Archives of Climate Variability, Paleoenvironment, Geohazards, and Economic Resources

**We also hope to see many of you at the following meeting events:**

- A talk by Ken Belitz, the Division's 2023 Birdsall-Dreiss Distinguished and LaMoreaux International Lecturer
- A talk by Alicia Wilson, the National Groundwater Association Darcy Distinguished Lecturer
- The Hydrogeology Division award ceremony (*no event ticket required; bring your own lunch*)
- The Hydrogeology Division business meeting
- The student mentoring and networking event
- The Hydrogeology Division student reception

## Information for students and early career professionals attending GSA Connects 2023

Students, did you know that you can cover your meeting registration costs by volunteering to work at least ten hours at the meeting? The sign-up period to volunteer will begin in August. You can learn more about the Student Volunteer Program [here](#).

If you will be graduating soon or are currently in the job market, you can learn about geoscience careers and meet with mentors from industry, government, and academia by participating in the GeoCareers Day events on Sunday, October 15<sup>th</sup>. Registration for this series of events is \$15 (includes lunch). Signup when you register for the meeting by selecting GSA GeoCareers Day under ticketed events.

In addition to GeoCareers Day, the following might be of interest for students and early career professionals and are open to everyone attending the meeting:

- **Résumé/Review Clinic, Sun.–Tues., 15–17 Oct., 10 a.m.–3 p.m.**  
Review will be on a first-come, first-served basis. Show up early to secure your 30-minute consultation. Bring two copies of your résumé.
- **Drop-in Mentoring, Sun.–Tues., 15–17 Oct., 10 a.m.–3 p.m.**  
Mentoring will be on a first-come, first-served basis. Sign up early to secure your 30-minute consultation.
- **Early Career Professional Coffee, Mon., 16 Oct., 9–10 a.m.**  
This informal gathering will include remarks from representatives of several non-profits who have activities of interest to early career professionals. There will be time for networking and sharing ideas on how these organizations can best serve you.
- **Networking Reception, Mon., 16 Oct., 11:30 a.m.–1 p.m.**  
This reception provides students and early career professionals with an exciting opportunity to network with more than 40 geoscience professionals. The mentors will answer questions, offer advice about career plans, and comment on job opportunities within their fields.
- **Geology Club Meet-up, Mon., 16 Oct., 2–3 p.m.**  
Want to see what other Geology Clubs are up to? Join the Geology Club Meet-Up and chat with other representatives about their activities, goals, and accomplishments.
- **Women in Geology, Mon., 16 Oct., 5:30–7 p.m.**  
This informal gathering begins with remarks from a few key women speakers who will address issues faced by women in geology. A networking session follows, providing time for sharing ideas and getting to know other women geoscientists.

GSA will also be offering a reception for students and early career professionals at the Senator John Heinz History Center. Registration is required for this event. Cost is to be determined.

*Finally, don't forget the Hydrogeology Division's always-popular Student Reception and Career and Networking events!*

## 2023 Award Announcements

### CONGRATULATIONS TO THE RECIPIENT THE GSA O.E. MEINZER AWARD!

- Dr. Jimmy Jiao, The University of Hong Kong

### CONGRATULATIONS TO THE RECIPIENTS OF GSA HYDROGEOLOGY DIVISION AWARDS!

#### George B. Maxey Distinguished Service Award:

- Dr. Clifford Voss, U.S. Geological Survey

#### Kohout Early Career Award:

- Dr. Margaret Zimmer, University of California – Santa Cruz

#### Birdsall-Dreiss and LaMoreaux International Lecturer:

- Dr. Ben Rostron, University of Alberta

#### Schwartz Award for Excellence in Mentoring and Education:

- Dr. Ken Bradbury, Wisconsin Geological and Natural History Survey

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*Join us for the  
presentation of awards  
at the Division's awards  
ceremony on the  
Tuesday of GSA  
Connects 2023*

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## Opportunities to Get Involved with the Hydrogeology Division

As Chris Gellasch noted in the Chair's Corner (p. 2), there are a lot of opportunities to get involved with GSA's Hydrogeology Division. These opportunities range from holding an elected position on the Management Board, to helping to select the Division award winners by serving on an award committee, to volunteering your time to help the Division out in a less official capacity.

In particular, we are looking for one or two people to assist with the logistics of the prizes for the trivia game at the Division's student reception at GSA Connects. Those efforts begin in the summer for the fall meeting. So, now is a great time to get involved. If you are interested in volunteering in that capacity, contact Tara Root, [troot@usgs.gov](mailto:troot@usgs.gov).

Of course, we also always welcome contributions to the newsletters (articles, announcements, photos)! Submissions for the newsletter can also be submitted to Tara Root, [troot@usgs.gov](mailto:troot@usgs.gov).

Feel free to reach out to any of the Management Board members to learn about additional opportunities to get involved with the Division.

**Stay current on developments in the Hydrogeology Division by joining our Facebook group, following us on Instagram, and tweeting us @GSAHydrogeology!**

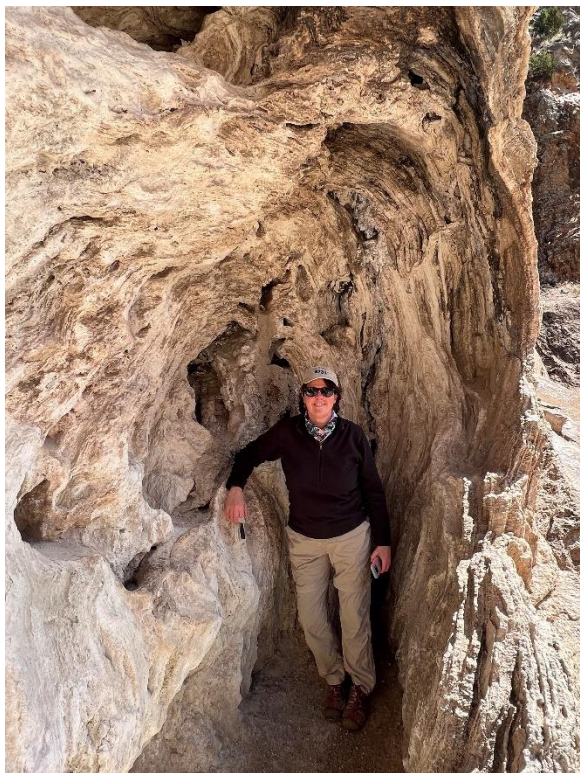
Facebook: <https://www.facebook.com/groups/93897080123/>

Instagram: [https://www.instagram.com/gsa\\_hydrogeology/](https://www.instagram.com/gsa_hydrogeology/)

Twitter: <https://twitter.com/GSAHydrogeology>



## Introductions from the Management Board's Newest Members



*Marcia Schulmeister,  
Section Representative Coordinator,  
GSA Hydrogeology Division*

I am excited about serving as the Division's first Section Representative Coordinator. The Hydrogeology Division is one of the only GSA Divisions that maintains direct representation in each of the of society's seven geographic Sections. My responsibilities will include helping the Division identify and maintain a list of Section Representatives and fostering stronger interaction between the Sections and the Division. In the immediate future, I'm looking forward to working with representatives to support hydrogeology-themed sessions and activities at the upcoming Section meetings.



*Sue Swanson (she/her/hers)  
Diversity, Equity, and Inclusion Officer,  
GSA Hydrogeology Division*

I am honored and excited to serve as the Hydrogeology Division's first Diversity, Equity, and Inclusion Officer. The position was first suggested by former Division Chairs Yu-Feng Lin and Andrea Brookfield. Over the last year I have worked with the Management Board to define this new position and identify opportunities to incorporate more inclusive practices in the work of the Division, such as drafting guidelines for accessible and inclusive scientific presentations for use by Birdsall-Dreiss Lecturers. I look forward to further efforts in the next year and encourage Division members to reach out to me with ideas.

**Undergraduate students and recent grads,  
we encourage you to present your research at GSA Connects 2023!**

*Cash prizes will be awarded to the top three posters in the Hydrogeology Division's  
Showcase of Undergraduate Research (Session T. 144)*

The [abstract submission](#) deadline is July 25<sup>th</sup>, 2023.

## Where in the World is This?



Think you know where this is?  
Email your guess to [troot@usgs.gov](mailto:troot@usgs.gov).

## From the Editor

Welcome to the Summer 2023 edition of The Hydrogeologist (no. 108). I hope you are enjoying the summer!

The Division's Management Board is busy planning for the GSA Connects 2023. This issue of the Hydrogeologist focuses mainly on announcements related to that meeting (see articles on pages 1, 3, and 4).

Two new positions are being added to the Management Board, DEI Officer and Section Representative Coordinator. Be sure to check out page 6 for introductions to Sue Swanson and Marcia Schulmeister, who are the first to serve in these new positions.

As always, please feel free to send me any articles, photos, or suggestions for the next edition of the Hydrogeologist, which will be published in the fall.

Tara Root ([troot@usgs.gov](mailto:troot@usgs.gov))

Do you have an interesting idea for a short scientific article? Perhaps an opinion on a new policy or technique? Any exciting news in your professional life? Upcoming conference? An announcement of interest to the hydrogeology community? A photo that you think would be good for our "Where in the World" Feature? If so, why not publish it in the Hydrogeologist? Send your submission ideas to [troot@usgs.gov](mailto:troot@usgs.gov).

**STUDENTS, WE WANT TO  
HEAR FROM YOU TOO!**



## Where in the World was That?



## Pozo de Jacinto in Puerto Rico



The blow hole featured in the "Where in the World is This" in the Winter 2023 issue of the newsletter (no. 107) is known as Pozo de Jacinto. It is located on the northwest corner of the island of Puerto Rico on Jobos Beach near the town of Isabela. The blow hole is formed in limestone, which contains ichnofossils of roots of mangrove-like plants (pictured at left). The cave beneath the blowhole extends to a depth of approximately 30 ft. A local folklore story indicates that the blow hole earned its name from a farmer whose name was Jacinto. One day Jacinto was walking his cow, which he had roped to his waist, during a storm. The cow fell into the blow hole. Jacinto was pulled

into the hole along with the cow, and they both died. Legend has it that if you stand near the blow hole and shout "Jacinto, tráeme la vaca" (Jacinto, give me the cow), the blow hole will spout as if to angrily respond "you are not taking my cow".



## Important Dates

|   |            |
|---|------------|
| National Association of Earth Science Teachers (NAGT) <a href="#">Earth Educators' Rendezvous</a> | 10-14 July |
| GSA Connects 2023 abstract Deadline   | 25 July    |
| <a href="#">Society of Economic Geologists (SEG) Conference: Resourcing the Green Transition</a>  | 26-29 Aug  |
| GSA sections travel grants deadline   | 6 Sept     |
| GSA Connects early registration deadline  | 13 Sept    |
| GSA Connects registration cancelation deadline  | 20 Sept    |
| GSA Connects student volunteer cancelation deadline   |            |
| GSA Connects housing deadline for discounted hotel rates  |            |
| National Association of Black Geoscientists (NABG) <a href="#">42 Annual Technical Conference</a> | 27-30 Sept |
| <a href="#">International EarthCache Day</a>  | 8 Oct      |
| <a href="#">Earth Science Week</a>  | 8-14 Oct   |
| <a href="#">GSA Connects 2023</a>   | 15-18 Oct  |

### THE HYDROGEOLOGIST

The Hydrogeologist is a publication of the Hydrogeology Division of the Geological Society of America. It is published electronically three times a year to communicate news of interest to members of the Hydrogeology Division and can be accessed at: <https://community.geosociety.org/hydrodivision/home>. Members of the Hydrogeology Division who have electronic mail will receive notification of all new issues. Other members will receive paper copies.

Contributions and material are welcome and should be directed to the Editor. The deadline for the fall issue is Sept. 15, 2023.

Tara Root, Editor  
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Davie, FL 33314  
phone: 561-400-7719

### JULY 2023

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### OCTOBER 2022

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| 29 | 30 | 31 |    |    |    |    |

## Hydrogeology Division Contacts

### 2022-2023 Management Board

- **Chair:** Chris Gellasch, [chris.gellasch@emich.edu](mailto:chris.gellasch@emich.edu)
- **First Vice-Chair:** Chris Carlson, [christopher.carlson@usda.gov](mailto:christopher.carlson@usda.gov)
- **Second Vice-Chair:** Don Rosenberry, [rosenberry@mines.edu](mailto:rosenberry@mines.edu)
- **Secretary:** Cara Peterman, [cpeterman@usgs.gov](mailto:cpeterman@usgs.gov)
- **Past-Chair:** Yu-Feng Lin, [yflin@illinois.edu](mailto:yflin@illinois.edu)
- **Student Representative:** Desire Piphus, [piphusdm@gmail.com](mailto:piphusdm@gmail.com)
- **Diversity, Equity and Inclusion (DEI) Officer:** Sue Swanson, [swansons@beliot.edu](mailto:swansons@beliot.edu)
- **Section Representatives Coordinator:** Marcia Schulmeister, [mschulme@ku.edu](mailto:mschulme@ku.edu)

### Standing Committees

- **Technical Program Committee:** Paul Stackelberg (Chair), Marty Frisbee
- **Nominating Committee:** Andrea Brookfield, Ben Rostron, William Cunningham
- **Meinzer Award Committee:** Mark Person, Bill Woessner, Bridgett Scanlon, Holly Michael, Ed Harvey
- **Kohout Early Career Committee:** Dorothy Vesper, Scott Jasechko, Chen Zhu, Christa Kelleher, Barret Kurylyk
- **Maxey Distinguished Service Award Committee:** Prosun Bhattacharya, Steven Ingebritsen, Alan Fryar
- **Birdsall-Dreiss Lecturer Committee:** Laura Crossey, Jonathan Martin, Randy Stotler, Bill Cunningham, Barbara Bekins
- **Archives:** Jim Thomas

### GSA Councilor/Division Liaison Representative

- Maddie Schreiber

### Ad Hoc Committees

#### **Section Representatives:**

Cordilleran, Beth Weinman  
 Northeastern, Todd Rayne  
 North-central, Peter Riemersma  
 South-central, Marcia Schulmeister  
 Rocky Mountain, Andrew Manning  
 Southeastern, Jeffrey Wilcox  
 International, Prosun Bhattacharya

#### **Representatives to Other Societies:**

American Geophysical Union, Barbara Bekins  
 American Geosciences Institute, David Wunsch  
 CUAHSI, Holly Michael  
 National Groundwater Association, Bill Alley  
 International Association of Hydrogeologists, Jack Sharp  
 SEPM, Gary Weissman  
 Soil Science Society of America, Michael Young

#### **Communications:**

Website Administrator, Mike Sukop  
 Website Administrator Assistant, Martina Rogers  
 Newsletter Editor, Tara Root

