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# THE MUCKREADER

## Letter from the Editor

Dear Muckreaders,

Welcome to the GSA Connects 2023 edition of our newsletter! Within this issue you will find everything you need to know for limno-related events at GSA Connects 2023. We've got sessions, we've got swag, we're revealing our new division logo. Lots has been going on behind the scenes folks, this is an exciting time to be a limnologically inclined human. We will also be taking a moment to recognize the contributions of our two outgoing student representatives before getting to know the new student representative.



Have you ever found yourself thinking there was a better way to do this newsletter, or content you wanted to see included that wasn't? Well now is your chance! In spring 2024 elections will be held and one of the positions up for grabs is Limnogeology Division Secretary, whose duties include being editor of the Muckreader! As much as I have loved bringing you all the limnological news, spring 2024 will be my final edition of the Muckreader then I will be stepping down, passing the reigns, handing off the baton, and taking my final bow. So if you think this looks fun (and it is), or you are just looking to give back to the limns-community, please consider running for secretary, or one of the other positions up for election (treasurer and vice chair).

Lastly, to everyone attending GSA Connects 2023, welcome to Pittsburgh! I live just north of the city and am so excited for everyone to experience this great little city. I have included some fun Pittsburgh attractions/must-do activities at the end of this edition. I hope you find them useful if you need to step away from the conference for a breather.

Andrea Shilling, Limnogeology Division Secretary, [shilling.andrea@gmail.com](mailto:shilling.andrea@gmail.com)

## Message from the Chair

Dear members of the GSA Limnogeology Division:

This past summer a message was posted and distributed by the Limnogeology Division addressing numerous media outlets discussing lacustrine research. This included public news, the headlines of “Shrinking Lakes” on the cover of *Science* (19 May 2023), an *Elements* (February 2023) dedicated to alkaline lakes, with a following *Elements* (April 2023) containing an article on minerals and paleoclimate in ancient lake basins of the East African Rift. Such

***“...do not underestimate the value of the lake-related pedagogical and scholarly work”***

articles supplement the robust and extensive periodicals focusing specifically on present and past limnogeology, limnology, climate and environmental change, and the Quaternary Period. The articles in *Science* were particularly sobering, quantifying the water volume decline in the largest global lakes and noting that

nearly one-quarter of the world’s population lives in a basin with a drying lake (Yao et al., 2023, *Science* 380, 743-749).

It is unlikely that the readership of this newsletter is surprised by such findings. However, with it being so easy to be discouraged by unsettling global, political, and societal events, it is important to remember the critically important work of limnogeologists and their complementary scientific colleagues. Lake-related research offers necessary scientific data to improve current environmental conditions, as well as provide essential knowledge needed to facilitate accurate predictions about the future of our planet. Please do not underestimate the value of the lake-related pedagogical and scholarly work that you perform. We are all stewards of our disciplines and should never hesitate to convey its importance to others, whether scientists or non-experts. Hopefully, an increase in public education will yield a consequent rise in global, political, and social stability.

As always, if you have any comments or suggestions for the Limnogeology Division Management Board, please do not hesitate to reach out. The board currently consists of the following individuals:

**Chair:** Jason Price, [japrice1@wsc.edu](mailto:japrice1@wsc.edu)

**Vice-Chair:** Kirsten Menking, [kimenking@vassar.edu](mailto:kimenking@vassar.edu)

**Secretary:** Andrea Shilling, [shilling.andrea@gmail.com](mailto:shilling.andrea@gmail.com)

**Treasurer:** David Finkelstein, [finkelstein@hws.edu](mailto:finkelstein@hws.edu)

**Student Representative:** Mackenzie Eskey, [maeske01@wsc.edu](mailto:maeske01@wsc.edu)

Respectfully submitted,

Jason R. Price, Limnogeology Division Chair, Wayne State College, [japrice1@wsc.edu](mailto:japrice1@wsc.edu)



***“We are all stewards of our disciplines and should never hesitate to convey its importance to others, whether scientists or non-experts.”***

## New Division Logo!

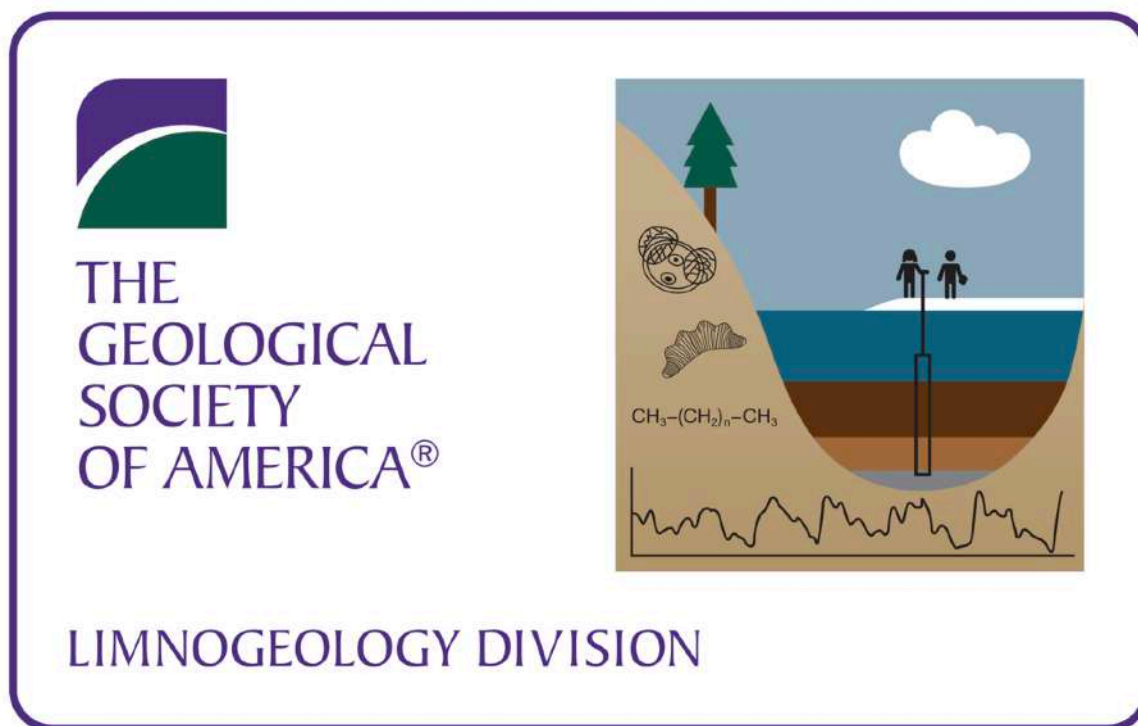
### Out with the old...

This logo served our division for many years, it graced t-shirts, and its simplicity was enjoyed by many:



### In with the new...

Alas, it was time for a change. The push for a new logo was not only spearheaded by vice-chair Kirsten Menking but also brought to fruition by her. The redesigned logo now features stratigraphy inside the lake, shows people actively engaged in lake research via sediment coring, illustrates several proxies frequently utilized in limnological research, and made the logo overall more colorful. Without further ado, for those who failed to notice the new logo on the front page of this newsletter:



# Limnogeology Division @ GSA Connects 2023

## GSA Sedimentary Geology Division, Limnogeology Division & SEPM Joint Reception

Tuesday, 17 October 2023, 6:00 to 8:00 p.m.

Location: 413/414/415 (4, David L. Lawrence Convention Center)

Please plan on attending the Limnogeology Division Awards Ceremony and Business Meeting at GSA Connects 2023 in Pittsburgh, Pennsylvania. As in previous years it will be joint with the Sedimentary Geology Division and the Society of Economic Paleontologists and Mineralogists (SEPM). This is a terrific opportunity to meet and mingle with like-minded geoscientists and enjoy some light refreshments. We will also be honoring the 2023 Israel C. Russell Award recipient, **Donald Rodbell**, and the 2023 Kerry Kelts Student Research Award recipient, **James Thayer**.

## Limnogeology Division Sponsored Sessions

**T41: Cycles of Climate and Layers of Time: The Scientific Legacies of Roger Y. Anderson and Walter E. Dean, Jr.,** convened by Kirsten Menking, Lesleigh Anderson, and Peter Fawcett and happening all day on Sunday (a.m. and p.m. oral sessions) with a poster session on Monday. The conveners motivation behind this session:

“Roger Anderson and Walter Dean passed away in 2021 during the height of the COVID pandemic. Both were luminaries in the fields of paleolimnology and paleoceanography who pioneered the multi-proxy approach to climate change research and worked on geological records from the Paleozoic to the Holocene. Walter was one of Roger’s first PhD students at the University of New Mexico, and they collaborated on a wide variety of projects for more than four decades. Roger was particularly interested in how seasonal cycles are recorded in sediments and rocks and built sediment traps with a device known as an intervalometer that he invented and patented to

dispense a layer of Teflon powder into the trap at specific time intervals. Roger’s traps have been deployed all over the world to help scientists interpret the information encoded in their lake and ocean sediment cores. His research was also instrumental in demonstrating that varves can be found in non-glacial settings. Long interested in the role of the sun in climate, he measured the thickness of >200,000 annually deposited gypsum-calcite couplets from the Permian Castile Formation and was one of the first people to use spectral analysis to uncover the Milankovitch and solar cycles contained therein. Walter developed the popular loss on ignition technique used to estimate sediment organic carbon content and employed major and trace element geochemistry to understand what conditions lead to anoxia in ocean basins. He also conducted pioneering research on the carbon cycle in lakes, and led numerous multi-proxy investigations of climate change in such sites as Elk Lake, Minnesota and Bear Lake, Utah/Idaho.

Their major contributions to the disciplines of paleoclimatology, paleoceanography, paleolimnology, paleoecology, limnogeology,



Quaternary geology, sedimentology, and geochemistry merit a session in Roger's and Walter's honor and a celebration of their lives, long friendship, and intellectual partnership.

We are very honored and excited that the Arthur L. Day Medal winner for 2023, Isabel Patricia Montañez, selected our session to present in!"

**T158: Lakes of the World Through Time and Space: Archives of Climate Variability, Paleoenvironment, Geohazards, and Economic Resources**, convened by Scott Starratt, Eva Lyon, and Christopher Schiller and happening all day on Tuesday (a.m. and p.m. oral sessions) with a poster session on Wednesday. From the conveners:

"Description: This session celebrates lacustrine research across the globe. sediments are archives of local and regional change, local human impact, economic resources, and ecological succession. This session explores terrestrial and extraterrestrial lacustrine research.

Rationale: Lacustrine deposits are becoming increasingly valuable archives for paleoenvironmental analysis across space and time. Lakes systems can range from the deep, ultraoligotrophic ecosystems of Lake Tahoe and Crater Lake, to small lakes in the alpine reaches of the mountain ranges of the world, to the saline lakes of North America, Africa, and Antarctica, and hyperacidic volcanic lakes, such as Ijen Crater Lake, yet despite their differences all can provide valuable records of geochemistry, ecology, and climate variability through time. Additionally, lakes hold the history of natural disasters and contain their sediments contain valuable economic deposits. The geological record of lacustrine deposits extends through the Phanerozoic. The depth and breadth of lacustrine studies is continuously expanding as new analytical methods and proxies are added to the burgeoning

paleolimnological toolkit. The purpose of this session is to provide a forum for limnogeologists interested in high-resolution records from Holocene sites to evaluations of large-scale changes in lacustrine environments across hundreds of millions of years."

*Please visit the Limnogeology  
Division booth at GSA Connects  
2023!*

The Limnogeology Division will once again be hosting a booth in the GSA Connects 2023 exhibit hall. Not only will this give us the opportunity to meet you, but this year we will also be selling limnogeology-related swag. Our illustrious chair has sewn a bunch of lake themed bandanas that will be available for purchase along with stickers of the new logo.

- \* Bandanas - \$10
- \* Logo Stickers - \$2



# Student Representatives Old and New

## To our Current Student Representatives, Fair Winds and Following Seas!

For the past three years the Limnogeology Division has greatly benefited from the outstanding service and perspective provided by Graduate Student Representative **Elena Robakiewicz** and Undergraduate Student Representative **Mackenzie Eskey**. Elena completed her Ph.D. this past summer in the Department of Earth Sciences at the University of Connecticut, and Mackenzie will be graduating from Wayne State College in December 2023 with B.S. degrees in both Life Sciences and Earth Science. Almost immediately upon starting their student positions with the Limnogeology Division, Elena and Mackenzie distinguished themselves as bright and thoughtful individuals who had a tremendous amount to contribute. They quickly became professional colleagues of the Division Management Board. Their student perspective was invaluable, whether addressing student resources from the Society or the nuances of social media. We wish you both the success of which you are certainly capable and all the happiness that you deserve. A sincere thank you for a job very well done!

## Welcome to our New Student Representative: Godspower E. Ubit

“Hello division members, My name is Godspower E. Ubit, a second-year PhD student at the Department of Geology and Environmental Science, University of Pittsburgh. I am an incoming student representative-elect for the Limnogeology Division,

GSA. Thank you for electing me for this position and for showing faith in my ability to serve in this role. I am from Nigeria and previously worked as an intern at the Ministry of Environment, a high school teacher, and an uphole refraction seismologist with the Bureau of Geophysical Prospecting (a subsidiary of the China National Petroleum Corporation), all in Nigeria. My research here at the University of Pittsburgh focuses on reconstructing the Chilean regional paleoclimate using multi-proxy lipid biomarkers from lacustrine sediments to elucidate the relationship between rainfall, temperature, changing vegetation regimes, and SWW intensity in this region. My study locations are spread across a wide latitude and elevation range, allowing variation in molecular isotopic tracers of climate and environmental change to track differences in SWW intensity. I will also examine the timing of Northern Hemisphere centennial-scale late Holocene climate events in Chilean Patagonia.



During my tenure as the student representative of the Limnogeology Division, I hope to partner with the leaders of the divisions to organize more workshops, outreach, and events for early-career scientists whose research focuses on Limnogeology. Also, I hope

to establish a career and graduate mentorship initiative within the division where undergraduates and early-stage graduate students can be paired with experienced graduate students, postdocs, and senior members of the division to gain guidance on their career and graduate school pathways and processes. I am eager to join hands with everyone here to drive the division forward. Thank you for the opportunity to serve!”



# 2024 ELECTIONS

In spring 2024, elections will begin for the Limnogeology Division Management Board.

Positions up for election include:

- \*Treasurer
- \*Secretary
- \*Vice-chair

➡ The vice-chair position is particularly important as Kirsten Menking (Current Vice-Chair), becomes chair as Jason Price (Current Chair) becomes past-chair.

Serving on the management board is an extremely rewarding experience and deserving of your consideration regardless of your career stage.

If you have any questions, or wish to nominate yourself or someone else, please do not hesitate to contact Jason at [japrice1@wsc.edu](mailto:japrice1@wsc.edu) or visit us at the Limnogeology Division booth in the Exhibit Hall at GSA Connects in Pittsburgh.

# Pittsburgh Fun

- ✳️ Take a ride on the funicular a.k.a. the Duquesne incline
- ✳️ Smell flowers in the Phipps Conservatory
- ✳️ Admire the confluence of Pittsburgh's three rivers, the Monongahela, Allegheny, and the Ohio at Point State Park
- ✳️ Check out the strip district
- ✳️ If museums are your jam we have the Warhol museum and the Carnegie Museums of Art and Natural History (two museums for the price of one!)
- ✳️ If you are in to the slightly more off the beaten path check out Randyland
- ✳️ If a bit of industrial history is down your alley check out the Carrie Furnace, a blast furnace. If you have a few hours to kill take the Rivers of Steel tour.