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Limnogeology Division Newsletter

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Nasikie Engida (a.k.a. Little Magadi) summer 2015, field season with the Smithsonian Institution's Human Origins Program and National Museums of Kenya (photo credit: Dan Deocampo).

Limnogeology Division Newsletter

Volume 13 Number 2

May 2016

Limnogeology Division Officers and Management Board

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From the Editor

Michelle Goman
Sonoma State University, Rohnert Park, CA

This edition of the Newsletter contains items of interest for members from the Division Board as well as the sad news of founding member Beth Gierlowski-Kordesch passing.

Other items of significance:

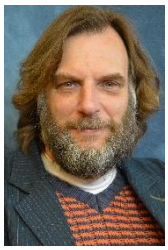
- The I.C. Russell Award Citation and Response
- The Kerry Kelts Award Winners and Submission Information
- Meet the candidates for the Limnogeology Board Elections
- Division bylaw revisions
- A list of sessions sponsored by Limnogeology for the upcoming 128th Annual GSA Meeting in Denver.

If you would like to share your research or images from your field work please contact me. Don't forget to send me your news items!

Michelle (goman@sonoma.edu)

Message from the Chair

Joop Varekamp
Wesleyan University, Middletown CT



Another year has almost passed and the Denver Annual GSA meeting is already around the corner. The NE GSA meeting had a great collection of lake papers in several sessions, and brought many limno folks together for lake stories and suds. Lake science of 2016 is bringing us to the ends of the earth: a newly found hidden lake under the ice of Antarctica (New Scientist, April 2016), while Lake Urmia in NW Iran, possibly once the world's second largest landlocked salt lake, is gradually disappearing, and has shrunk > 80% over the last two decades (image credit: NASA Earth Observatory). Lake management strategies under different future climate scenarios are developed to maintain its future viability (*Science of The Total Environment*, 559, 2016). Of course, Lake Urmia is not the only one shrinking in surface area and volume, but can be added to a long list of endangered lakes in the world.

I remember Lake Urmia well, from my very first remote expedition as a graduate student, more than 40 years ago, when we travelled from Tabriz (Iran) along Lake Urmia, on our way into Turkey and on to alkaline Lake Van.

Speaking of remembrances of the past, we are sad to note that Dan Livingstone, a renaissance limnologist, passed away in early March of this year at the age of 88 (https://today.duke.edu/2016/03/livingstoneobit). Dan received his PhD at Yale University, working with the famous limno-ecologist Evelyn Hutchinson on several Connecticut lakes, right here in my own backyard, then spent most of his career at Duke University. Many people have been inspired by his work, his spirit and intellect, and many of us use the Livingstone corer on a regular basis. A memorial event will be organized for the Limnogeology business meeting at the Annual GSA meeting in Denver. I refer you to an extensive obituary that was written by George Kling, one of his many graduate students at Duke University, in the Bulletin of Limnology and Oceanography (in press). The 'Celebration of Lakes' session T122 at the upcoming annual GSA meeting also has been recast as a Tribute Session to Dan Livingstone, and we invite all of you to consider submitting either science papers that touch on his work and legacy, or papers of personal

remembrance. The Livingstone Tribute session will evolve as contributions are flowing in. Another very recent sad event was mentioned already above: the sudden passing of Beth Gierlowski-Kordesch, one of our founding members and active participant in our organization. A short obituary follows below. I met Beth first in the late 1980s and was impressed by her drive and energy. Over the years we met during conferences and fieldtrips, and the last two years we saw a lot of each other. We will all miss her wisdom, her sense of humor, and her profound honesty in science and colleagueship. If you asked Beth for her opinion, you got a straight answer! We will have a memorial event at the Limnogeology business meeting in Denver, while a GSA meeting tribute session and special book volume in her honor are in preparation for the near future.

I hope to see many of you in Denver, where we have a series of Limnogeology sessions on the roster. During our business meeting we will once again hand out the Israel C. Russell prize and the Kerry Kelts Student Research Award. The 2016 Russell Awardee is Alan Carroll, well known for his extensive work on the Green River Formation (e.g., see his 2015 book, co-edited with Michael Smith) and research on a host of other lake systems. This is my last Newsletter entry as Chair, although many tasks are still in progress, such as the Connected Communities website transfer, the ELEMENTS lakes issue, and more. It has been my privilege to serve this community of limno-lovers and lake scientists for the last 1.5 years. I am happy to report that we have three candidates (all female) running for the upcoming Vice Presidency election. The Division is alive and well with close to 300 members, thanks to all your activities and contributions at professional meetings, lake sediment coring expeditions, and fieldtrips to modern lakes.

VIVA LIMNOGEOLOGY!

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Message from the Vice-Chair

Scott Starratt
U.S. Geological Survey, Menlo Park, CA

Why do you belong to a GSA division?

What can we do to increase student participation in GSA activities?

How do we maintain a vibrant society, in the face of aging demographics and the loss of student and early career members?

How do we get more than 50% of the membership to read division messages and newsletters?

These were just a few of the topics of the two-day GSA Division Officers meeting which was held in late April at GSA Headquarters. The one topic that will probably have the most direct effect on how the geology community as a whole receives GSA publications is the decision

to make all GSA publications Open Source over the next three years. If you have questions about the meeting, please feel free to contact me.

Several collections of papers of interest to limnogeologists are currently in preparation, and should be available sometime in 2017. The first volume (GSA Special Paper) of interest is a collection of papers on Cenozoic lakes in the western US, which will include chapters on the paleolimnology of the Eocene Green River Formation in southwestern Wyoming, northeastern Utah, and northwestern Colorado and the late Eocene Florissant Formation east of Colorado Springs, Colorado. Other papers included discuss Pliocene lacustrine beds near Death Valley, California, Lake Bonneville in Utah, and a number of late Pleistocene and Holocene freshwater to saline lakes across the west. Papers from the 6th International Limnogeology Congress, which was held in Reno, Nevada last June cover a range of topics from Mesozoic rift lakes, through a number of Quaternary lakes from around the world, the studies of modern lacustrine processes. The GSA Special Paper and ILIC Proceedings are being edited by Michael Rosen and Scott Starratt. The last proceedings volume in the que is the proceedings of the 27th Pacific Climate Workshop. While not dedicated exclusively to lakes, the proceedings of this conference (published in Quaternary International since 2008), often includes papers on lacustrine sediments. The present volume is being edited by Jeannine St. Jacques, Ingrid Hendy, Julie Loisel (former Kerry Kelts Award winner), and Scott Starratt. Last but not least, another volume on Volcanic Lakes is nearing completion: Geochemistry and Geophysics of Active Volcanic Lakes, eds, Caudron, Capaccioni and Ohba, to be published by the Geological Society of London. If you like smelly and exotic lakes, look for the finalized volume by the end of 2016.

Lake Waiau, Hawaii. Left to Right: September 2006: Winter sunrise over lake; January 2013 (Photo Credit; Google Earth)

Lakes on my wish list to core: Lake Waiau! Nestled in a cinder cone near the summit of Mauna Kea at an elevation of 3,970 m, Lake Waiau is arguably one of the highest lake in the U.S. Winter rains can bring the lake to its maximum size of about 100 m across; by summer the lake can be less than a third that size. In some years, it can be even smaller. Although the surface is usually placid, the name means "swirling water" and usually freezes in the winter. The University of Hawai'i collected sediment cores in the 1960's (some of the equipment remains in the lake and is exposed at extremely low water levels) and initial analyses suggested that the upper 2 m of sediment represented the last 7,500 years of the Holocene.

The authors note that the record could extend back as far at 30,000 years. Recent studies have studied the isotopic composition of the water and evaluated the genetics of the microbes in the modern lake. Detailed studies of the paleohydrology and paleoclimate have yet to be conducted. Access is currently difficult due to local concern about the state of the astronomical observatories at the summit of Mauna Kea.

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Financial Update

David Finkelstein (Division Treasurer)
Hobart and William Smith Colleges

STATEMENT OF ACTIVITIES
REVENUE SOURCES

Division Dues Income	$1,184.32
Donations	$2,250.00
Total Revenue	$3,434.32

EXPENSES

Furniture & Equipment Rental	$ 181.00
Contract Services	$ 111.81
Awards, Purchased	$ 239.00
Total Expenses	$ 531.81
NET INCOME/(LOSS)	$2,902.51

STATEMENT OF FINANCIAL POSITION
ASSETS

Cash	$3,922.87
Total Assets	$3,922.87

LIABILITIES AND EQUITY

Deferred Dues Income	$1,130.42
Net Assets, Beginning of Year	$ -110.06
Net Income/Loss Current Year	$2,902.51
UNRESTRICTED NET ASSETS, Year to Date	$3,922.87

Unrestricted Chairs Fund:	$ 700.00

The Student Photic Zone

Nathan M. Rabideaux
Georgia State University
Student Representative – Limnogeology Division, Vice Chair – Student Advisory Council

Hello all you wonderful Limnogeology students and recent graduates!

In case you aren't yet familiar with the Student Advisory Council (SAC), I'll highlight a few pertinent bits of information for everyone right off the bat. The SAC was established in 2014 by GSA to provide a student voice to GSA leadership. I was nominated as the first Student Representative of the Limnogeology Division in the summer of 2014, and was subsequently elected Vice Chair of the SAC in 2015. These first 1.5+ years have been quite an experience and we are starting to fill our niche in representing student membership quite nicely, but we still have a lot of work to do and need input and feedback from everyone to better serve our members.

The SAC has now held business meetings at the past two Annual Meetings in Vancouver and Baltimore, as well as sent representation to the GSA Council meetings the past two years. GSA is very interested in how to better serve student members and has been enthusiastic about accepting and implementing our recommendations thus far. Some of the key highlights we've accomplished so far are to expand mentoring and diversity initiatives through GSA. These opportunities will likely involve development of internship programs through industry, government, and non-profits in addition to the GeoCorps and Geoscientist-in-the-Park programs. There are plans to further develop and expand the "On to the Future" programs and to identify more opportunities for increasing inclusion, equity, and diversity in the geosciences.

The Executive Committee of GSA provided the SAC with a series of questions and concerns they had about how students viewed existing programs. Survey results from the SAC provided the GSA Council with some useful feedback regarding how to better disseminate information and to better serve the student membership. Look for GSA to reach out to campus representatives and geoscience clubs in the coming year or so. GSA is currently working on a Code of Conduct for meetings, to address some issues that have been raised in recent years. In addition, there will be a survey circulated to the student members in the not-too-distant future regarding behaviors and harassment in the lab and field. This will help craft policy and recommendations moving forward, so a high response rate is extremely important.

Finally, there are a lot of great opportunities and programs, as well as technical sessions, planned for this year's Annual Meeting. Make sure to check out the On-to-the Future program, Student Travel Grants, Student Volunteer opportunities, the AIPG Mentoring luncheon, and more. In addition, there will a number of great technical sessions on lakes and outcrops, as well as a session chaired by Marilyn Suiter and Lina Patino that

explores funding and programs to support graduate students, which is always useful! So please make sure to attend the meeting and take advantage of all the opportunities available for students. And please don't hesitate to get in contact with me or future Limnogeology Student Representatives with any suggestion, comment, or concern. We're here to serve you. Cheers!

~*~

Elizabeth Gierlowski-Kordesch

We write to share the sad news that the world of Limnogeology lost a force of nature in the sudden passing of Elizabeth Gierlowski-Kordesch. Beth was both a generous and rigorous scientist, as well as an inspiration to students and colleagues who brought a vision of openness and inclusiveness in her approach to studying lakes at all levels from local and regional to national and international projects. She co-founded the Limnogeology Division of the Geological Society of America and tirelessly promoted science at all levels, from local science fairs to professional endeavors like the International Association of Limnogeology, which she co-founded with other leading limnogeologists. Beth provided opportunities for anyone willing to talk about lakes, often traveling to look at lake deposits or collaborating with students and colleagues. Studying lakes provided a common base for the exchange of ideas across continents and languages. She pushed people to think, "lakes are not small oceans." She tightened our thinking by asking, "what sedimentological evidence supports that interpretation?" And often heard in her presence, "how do we balance your geochemistry and my sedimentology… get the thin sections out and let's look!" Her generosity in publishing and editing was focused on helping students as well as established scientists to get the word out to all. She was a very patient and wise mentor. With Beth, colleagues became friends and friends became family, and she will be greatly missed. Please see a more complete obituary in the Ohio University webpage: http://www.ohio-forum.com/?p=25328

Kevin Bohacs	David Finkelstein	Michael Rosen
Exxon Mobil	*Hobart and William Smith Colleges*	*USGS*

2015 Israel C. Russell Award

Citation by Lisa Park Boush:

I am pleased to honor Dr. Andrew (Andy) Cohen as the 2015 Israel Russell Awardee. Andy embodies the spirit of this award by his landmark achievements in research, scholarship, training, and service to the limnogeological community. Andy's research has spanned three continents involving all aspects of the limnogeological record. He has co-authored over 114 papers and authored the leading paleolimnology textbook, "Paleolimnology. History and Evolution of Lake Systems". His efforts in conservation paleolimnology, climate change and human origin research have made an extraordinary impact in those areas for the past three decades.

For the past 25 years, Andy has been a major force in developing scientific lake drilling, leading/co-leading 3 major drilling projects, including the GLAD development and testing project at Great Salt Lake, the Lake Malawi Drilling Project and now, the Hominin Sites and Paleolakes Drilling Project (HSPDP), where he is coordinating >100 scientists from 11 countries, with 5 drill areas in two countries. In addition, he has served on the DOSECC Board of Directors, the ICDP Science Advisory Group and ICDP Lakes Drilling Task Force.

Andy also played a pioneering role in lake management and conservation related to Lake Tanganyika, organizing the first conference and leading the first scoping mission for the UN-GEF Lake Tanganyika conservation project. In addition, he has trained over 100 American and 100 African students in his Research Experience for Undergraduates (REU) Lake Tanganyika project in the 10 years of its duration.

Andy has been an outstanding mentor to many PhD, MS and BS students and his concern and support for all of his students remain the hallmark of his important legacy.

In sum, Andy Cohen has given his community much in the way of scientific leadership and the lake community would not be as vibrant and successful without his vision, commitment, and tenacity.

Andy Cohen, Joop Varekamp and Scott Starratt

Response by Andy Cohen:

I want to express my sincere thanks to GSA's Limnogeology Division for awarding me with this honor. I also want to express my thanks to Lisa and my many graduate and undergraduate students over the years who have been the real heroes allowing me to receive this award today. As most here are well aware, both field and lab work in limnogeology and paleolimnology is typically a team effort, and this is especially true working in remote parts of Africa. For the past 38 years it has been my good fortune to work on lake deposits on three continents, including what to my mind are the most interesting lakes in the world. To paraphrase a well-respected TV philosopher, "I don't always study lakes, but when I do, I prefer those of the Rift Valley!".

Eastern Africa houses an incredible range of lakes, from the alkaline, turbid and hyperproductive lakes of the Kenyan and Ethiopian rifts, to the species rich freshwater lakes of the western rift. Each has its charms and fascinating stories to tell those who navigate the bad roads, unique accommodations and occasional close calls involving equipment malfunctions and unanticipated weaponry. Studying African lakes has held an attraction to me since my graduate school days, when as a student, I was admonished by a faculty member at my university (NOT, I should note, one of my wonderful advisors Richard Cowen and Leo Laporte) that it was foolish for a paleobiology student to embark on a career studying lakes and lacustrine fossils. I was sure then and continue to believe today that this opinion was misguided. Through the efforts of my many colleagues and members of my own lab groups the African Great Lakes have provided us with a treasure trove of information about tropical ecosystem history. Sediments and fossils from these lakes also inform us about the evolution of some of the most spectacular adaptive radiations known on Earth, involving literally thousands of species of fish and invertebrates. I have been fortunate to be involved in four scientific drilling campaigns in both Africa and the western US where ancient lakes are giving up their exciting secrets about climate, ecosystems and evolution.

In addition to my graduate students I want to thank a number of individuals who have been instrumental in helping me achieve my goals. First, thanks to my close colleagues in African paleolimnology and paleoenvironmental studies over decades, especially Chris Scholz, Tom Johnson, Dan Livingstone, Jim Russell, Kay Behrensmeyer, John King, Jean Jacques Tiercelin and the late Kerry Kelts and Mike Talbot. I am lucky to have exceptional colleagues in my own department at the University of Arizona such as Pete DeCelles, Julie Cole, Peter Reinthal, Roy Johnson, Jon Overpeck, Dave Dettman and Owen Davis who have been tremendous collaborators and sounding boards over the years. I was very fortunate to direct the Nyanza Project, an NSF funded Research Experience for Undergraduates on tropical lakes, based at Lake Tanganyika. Over 10 years my close Nyanza colleagues Kiram Lezzar, Ellinor Michel, Catherine O'Reilly, Curt Stager, Mike Soreghan, Jon Todd, Pierre Denis Plisnier and Hudson Nkotagu (as well as Jim Russell and Chris Scholz) made that program an inspirational incubator of research scientists skilled at interdisciplinary environmental research. Most recently it has been my privilege to work with terrific colleagues in the Hominin Sites and Paleolakes Drilling Project, including Chris Campisano, Ramon Arrowsmith, Kaye Reed, Craig Feibel, John Kingston, Tim Lowenstein, Robin Renaut, Bernie Owen, Al Deino, Rick Potts, Henry Lamb and Frank Schabitz, along with many of the people listed previously. And finally I want to give my special thanks and love to my two sons Alex and Zach and my loving wife, Debbie Gevirtzman for their forbearance in my long trips away from home and propensity to wear loud African shirts!

2015 Kerry Kelts Award Winners

Ann Elisabeth Morey Ross (Oregon State University) with a project on
"Earthquake triggered deposits in Squaw Lake, Oregon".

Ann is shown here stabilizing the first kullenberg core recovered from the deep-water at her field site while the core cutter is removed.

2016 Kerry Kelts Submission Information

Applications are invited for the Kerry Kelts Research Awards. This year, one award of $1,000 for undergraduate or graduate student research related to limnogeology, limnology, or paleolimnology is available. Deadline; June 30th 2016, 12 a.m. EST.

Prepare your application as a PDF (or PDFs) with your last name in all file names. The application files should contain a research summary and a short CV (two pages max.). The research summary must include a description of the proposed research its limnogeological significance, why the award funds are needed for the project, and a brief description of the student's other funding sources. Be sure to include a title. The maximum length for the summary is five pages, including figures and captions; the list of references cited is not included in this limit. Send your application to Division Chair Joop Varekamp, jvarekamp@wesleyan.edu. Please include "Kelts Award application" in the subject line.

Donate to the Kerry Kelts Award

GSA and the limnogeology Division hope to increase the number of Kelts awards, named for the visionary limnogeologist and inspiring teacher Kerry Kelts, in the future. If you can help support this award, please send your donation, labeled "Kerry Kelts Research Awards of the Limnogeology Division," to GSA at P.O. Box 9140, Boulder, CO 80301-9140, USA.

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LIMNOGEOLOGY DIVISION BOARD ELECTIONS

The Limnogeology division will hold elections for the following positions: Vice-Chair and Student Representative. Please look for in your inbox for your electronic ballot soon. Thanks to all who nominated these excellent candidates and also to the candidates for their willingness to serve.

Meet the candidates

Kathy Benison

West Virginia University

Kathy Benison earned her Ph.D. from the University of Kansas in 1997. She was a professor of Geology at Central Michigan University and has been an associate professor of Geology at West Virginia University since 2012. Kathy studies the sedimentology, geochemistry, climatology, and biology of modern and ancient acid saline lakes. Her active research field areas include lakes in Australia and Chile, and Permo-Triassic lake deposits in North America and Northern Ireland. She is also interested in chemical sediments on Mars. Kathy has been an associate editor for Journal of Sedimentary Research since 2005. She has served on a National Research Council, and on NASA and NSF review panels. She has also been a facilitator for pedagogical workshops. **Statement of Interest:** Kathy is dedicated to: (1) promoting limnogeological and paleolimnogeological research throughout the wider scientific community, as well as to the general public; (2) collaborating with other lake researchers; and (3) providing opportunities for students in lacustrine education, research, and field experiences.

Lisa Park Boush

University of Connecticut

I am a limnogeologist who studies both modern and ancient lakes and their faunas. I have worked in the large rift lakes in East Africa, including on the Malawi Drilling Project, the Green River and Barstow Formations of North America, as well as lakes in the Bahamas. I have also developed a database of lake faunas through time to examine long term changes in lacustrine biodiversity. In 2003, I helped establish the Limnogeology Division and served as its founding Secretary from 2003-2005. Within GSA, I have served on the Membership Committee, *Geology* Editorial Board, Treatise Advisory Board and was elected Fellow in 2007. I was Secretary of the Paleontological Society (2008-2010) and currently am serving on the Executive Board of STEPPE, the Policy Committee for the Continental Scientific Drilling Coordination Office and the Advisory Board of the UTCT Scanning Facility. Between 2010-2013, I was a program officer at the National Science Foundation in Sedimentary Geology and Paleobiology (SGP/EAR/GEO). At NSF, I managed programs, established goals and objectives and initiated new program thrusts, including writing a new funding solicitation (Earth Life Transitions-ELT). I also represented NSF at a variety of workshops, including ones related to continental drilling.

Statement of Interest: My vision for the future of the Limnogeology Division is one of enhancing our existing programs, while working on initiatives to improve funding opportunities for limnogeologists, as well as coordinating broader impact activities among researchers in the community. My experience as a researcher and as a program officer at

NSF has allowed me to know and understand all facets of limnogeology and I would be excited to help lead the Division into the future.

Susan R. Zimmerman

Lawrence Livermore National Lab

Paleolimnology, geochronology, geochemistry. Education: B.S. Geology, Dickinson College, PA; Ph.D. Earth & Environmental Sciences, Columbia University. Prof. Experience: Earth Science Instructor, Dickinson College, 1998-1999; Post-doc, Columbia Univ. 2006; Post-doc, Center for AMS, Lawrence Livermore Nat'l. Lab, 2007-2009; Staff Scientist, Center for AMS, LLNL, 2009-present. Prof. Affil.: Adjunct associate research scientist, Lamont-Doherty Earth Observatory, 2010 –pres.; Research Associate, Berkeley Geochronology Center, 2011-pres.; GSA, AGU, ESWN. Research Interests: Quaternary paleoclimate; western US alkaline lakes; ^{14}C and multichronometer age modeling; integration of paleodata and climate models. Statement of Interest: My interest in lakes and their histories ranges from the Triassic-Jurassic rift lakes of my undergraduate thesis to the last thousand years of the Great Basin lakes, in deciphering their records faithfully at high resolution, with robust chronologies. The records of the very recent past can and should be used to inform societal decisions about the future.

Statement of Interest: As part of the Division leadership, I look forward to making connections across the geologic timescales of lake records, and the human timescales of student, early-career, and experienced colleagues.

Student Representative

Anne L. Billingsley

University of Arizona

I have always found great joy in pools of water and collections of mud, and I was amazed when I found out my fascination with these things could actually be useful and quasi-lucrative. I found my true calling when I combined this interest with my consistent amazement at how humans and environment interact, whether it is in the context of humans destroying their environment through ignorance or the overwhelming impact our natural world can have on our societies and species. I graduated from the University of Missouri – Kansas City with my BS in Environmental Science and an MS in Environmental and Urban Geosciences – Environmental Geology. My research at UMKC involved a multi-proxy, 3,500 year reconstruction of the coastal environment of San Salvador Island, The Bahamas using soft sediment cores from Triangle Pond. I then used this reconstruction to establish the local environment's response to prehistoric and historic anthropogenic activity, sea level fluctuations and regional climate changes. I am currently pursuing my PhD at the University of Arizona where I work on the Hominin Site Paleolake Drilling Project using drill cores

from three lakes in East Africa to develop a climate history of the region in the context of hominin evolution.

Statement of Interest:
I am interested in being a student representative for the limnogeology division of the Geological Society of America. I would like to become more involved in the division, and I believe that my education, past experiences and my abilities to participate and contribute to teamwork are excellent attributes to have for this position.

Jonathan Knapp
West Virginia University

Jonathan P. Knapp. Ph.D. Candidate in sedimentology and stratigraphy (terrestrial and lacustrine systems) at West Virginia University. Education: BS Geology-Environmental Sciences Central Michigan University; PhD (current) sedimentology, Chesapeake Energy Fellow at West Virginia University. Professional Experience: Internships at ExxonMobil (2009) and Encana (2010). Owner of GeoScan360 (2010-2015) oil and gas consulting company. Assistant Geology Manager, Petrogulf Corporation (2011-2013). Instructor for WVU Field Camp (2015). Physical Scientist at White Sands National Monument (2016-current). Professional Service: Student representative to the Department to Geology and Geography at WVU (2013-2014). Volunteer webmaster for limnogeology.org (2015-current). GSA OTF mentor (2015, 2016). Co-chair of 2016 GSA technical session T196 *The Other Red Planet: Terrestrial Environments and Climates from the Permian and Triassic*. Research Interests: Climate and environments from Permian and Triassic continental deposits including lakes and paleosols; application of portable XRF to characterize modern and ancient lacustrine systems; and lakes that generate gypsum. For my Ph.D., I am conducting an investigation of the Permian-Triassic of Wyoming, including a carbonate lake deposit (the Alcova Formation) and lacustrine, paleosol, and sheet flood deposits in red beds (Chugwater Group). My new position at White Sands National Monument will focus on the connections between the Lake Lucero, the ancient lake Otero, and the famous gypsum dunes.

Statement of Interest: My fascination and curiosity with lakes started with a youth spent exploring the lakes of northern Michigan. I now devote my research to a systems-based understanding of the connections between lakes, soils, and eolian processes through space and time. As student representative I will champion the participation of undergraduate students in limnogeology research, promote an active role for graduate students in the division, and advocate for student issues to the division. GSA and undergraduate research were critical in my process of discovery early in my career and I look forward to the opportunity to repay this through serving as the student representative.

Bylaws Update

Our division bylaws have not been updated since the divisions inception. Much has happened since 2002 and so the board have been working on updating our bylaws to include amongst other things our awards and new student representative position. The draft of the revised bylaws are included here (neon yellow indicates revised text). The division membership will be asked to vote on these bylaw changes in the upcoming division election cycle. Please watch your inbox for information regarding the ballot.

May 2016

DRAFT-PROPOSED CHANGES April 2016

LIMNOGEOLOGY DIVISION BYLAWS

Established by Council on April 27, 2002.

ARTICLE I
Organization, Name, and Purpose

1. This division of The Geological Society of America, Inc., is organized in accordance with Article IX, *Divisions of the Society*, of the bylaws of that Society and is governed by the provisions of that article.

2. *Name*. The name of the division is the Limnogeology Division of The Geological Society of America, Inc.

3. *Purpose*. The purpose of the Division is to promote (1) the research on both ancient and modern lakes around the world, (2) the collaboration of scientists from all disciplines on lake research, (3) the presentation and publication of lake research, and (4) students in performing research or wishing a career in lake studies.

ARTICLE II
Membership

1. Any Member, Fellow, Honorary Fellow, or Affiliate of the Geological Society of America who is in good standing may become a member of the Limnogeology Division. To effect division membership, an applicant shall express his/her desire on the GSA application or membership renewal forms or in writing to the secretary of the division or the executive director of the Society. All division members in good standing are eligible to vote and to hold office in the division.

ARTICLE III
Finances

1. The Division shall be financially responsible for its normal expenses. All other financial obligations or commitments of the Division must have prior approval of the Council.

2. The Division may collect annual dues or special assessments from affiliates when recommended by its Management Board and approved by a majority vote of the voting affiliates.

3. The Division may solicit and accept contributions of funds to be used and expended under supervision of its Management Board and subject to Council approval.

ARTICLE IV
Officers and Management Board

1. *Officers*. The officers of the Division shall be the Chair, Vice-Chair, Secretary, Treasurer, and a student member. Terms of office shall be two years. Terms of office shall begin and end at the annual meeting. Only the Secretary and Treasurer may be re-elected to the same office for consecutive terms. The student member must be a full-time student at an accredited college or university at the time of his/her election.

2. *Management Board*. The Management Board shall consist of the Chair, Vice-Chair, Secretary, Treasurer, immediate Past Chair and the student member.

3. *Election of Officers*. The nominating committee of the Division shall nominate candidates every two years for all offices. These nominations shall be published in the spring issue of the Division's newsletter. Voting will take place in the summer, and officers will be inducted at the annual business meeting in the fall.

   Other Methods of Nomination. A nomination for any of these positions also may be made by any four voting affiliates of the Division in good standing who shall verify that the candidate is qualified and willing to serve in that office. The nominations shall be accepted if signed by the nominating affiliates and received by the Secretary no later than **June 1**.

   If other candidates are nominated and approved by the Management Board, they will be added to the regular ticket and shall be submitted by the Secretary of the Division to the Executive Director of the Society who shall have a ballot prepared and distributed to the voting affiliates during the summer.

   The election of officers shall be in accordance with the election procedures of the Society and shall be under the supervision of the Society. All provisions governing the election of officers of the Society which are applicable to the Division shall govern the election of officers of the Division.

4. *Vacancies.* Any vacancy occurring during the term of any elected officer of the division shall be filled by a simple majority vote of appointment by the Management Board within 90 days of notification, and such appointee shall serve until the next annual business meeting of the division.

5. *Removal of a Management Board Officer*. Any officer who fails to perform the duties prescribed in these bylaws, or who brings discredit to the Division in any way, may be removed from office by an unanimous vote of the other officers of the management

board. In addition, the board will solicit input from an independent GSA official such as a GSA council member for procedural advice or arbitration. Any management board officer may make a motion for removal of another officer. The Division officer who is subject to a motion for removal must be provided an opportunity to respond and present an argument against removal prior to any vote on the motion.

ARTICLE V

Committees

1. *Program Committee*. A program committee consisting of two or more voting affiliates of the Division shall be appointed by the Management Board.

   The program committee shall plan and arrange for the technical sessions of the Division at the annual meeting and such other programs as may be directed by the Management Board.

   The program committee chair, or someone designated by him/her, plus one other member of the program committee, or someone designated by him/her, shall serve as the Division's program representatives on the Council's Joint Technical Program Committee.

   The program committee may plan research symposia, at various times and places, and may appoint Division representatives to organize and chair the symposia.

2. *Nominating Committee*. A nominating committee consisting of three voting affiliates of the Division, one of whom shall be designated chair, who are not members of the Management Board, shall be appointed annually by the Chair of the Division.

   The nominating committee shall nominate candidates for all officers every two years.

3. *Responsibility*. Reports, recommendations, or other actions by appointed committees, other than the nominating committee, shall be subject to the approval of the Management Board. After such approval, the Secretary of the Division shall report appropriately to the Executive Director of the Society if the attention or action of the Council is required. Appointed committees shall present annual reports which shall be summarized in the annual report of the Management Board.

5. *Tenure*. Committee appointments shall expire at the close of the next annual meeting of the Division, unless otherwise specified. Vacancies on committees may be filled by interim appointment at any time by the Division Chair. Committee members may be re-appointed for up to three consecutive terms.

ARTICLE VI

Management

1. *Management Board*. The property and affairs of the Division shall be managed by the Management Board. At the annual business meeting, the Management Board shall submit a report of the preceding year's activities of the Division that shall include the reports of the Chair and the Treasurer and the reports of the various committees. Before **February 15** of the following year, this report shall be submitted by the Secretary and Treasurer of the Division to the Executive Director of the Society. A summary of the report will be presented to the affiliates of the Division in the Division's newsletter.

2. *The Chair*. The Chair shall preside at meetings of the Division and the Management Board. The Chair shall submit a report to the Management Board of the activities of the Division during his/her term of office and on future plans.

3. *Vice-Chair*. The Vice-Chair shall assume the position of Chair in the event of the absence or disability of the Chair or after serving two years in office.

4. *Secretary*. The Secretary shall keep records of the proceedings of the Division and shall act as secretary of the Management Board. He/she shall maintain liaison with GSA headquarters and shall serve, *ex officio*, as a member of all committees.

   The Secretary shall notify the officers and the members of the committees of their election or appointment and shall arrange for issuance of notices of all Division and Management Board meetings and of election results.

5. *Treasurer*. The Treasurer shall keep records of the financial proceedings of the Division. He/she shall account to the Council of the Society for all funds advanced by the Society.

   The Treasurer shall collect and disburse all funds of the Division and shall keep records of all receipts and disbursements and other financial transactions of the Division.

6. *Student Member*. The student member of the Management Board shall represent the concerns of student members of the Division, participate in the meetings of the Management Board, and have a vote on any and all matters considered by the Management Board that require a vote.

7. *Past Chair*. Upon completion of his/her term in office, the Chair shall assume the position of Past Chair for two years. The Past Chair shall serve as an advisor to the Chair.

ARTICLE VII
Meetings

1. *Annual Business Meeting*. The annual business meeting of the Division shall be held during the annual meeting of the Society.

2. *Management Board Meetings*. The Management Board shall meet immediately prior to the annual business meeting. Special meetings of the Management Board may be

called at any time by the Chair with the consent of a majority of the Management Board. Decisions may also be made by mail or electronic vote.

3. *Technical Sessions*. Technical sessions of the Division shall be held during the annual and regional meetings of the Society. Cooperative meetings with other societies, or other special programs, may be held at any time, subject to the approval of the Management Board.

4. *Symposia*. Research symposia sponsored by the Division shall be held during the annual meetings of the Society and may be held during regional meetings. Symposia chairs will be appointed by the program committee. Symposia topics will be determined by the symposia chairs and the program committee.

5. *Informal Meetings*. Informal research meetings may be scheduled by the Management Board and program committee during the annual and regional meetings of the Society.

ARTICLE VIII
Division Newsletter

1. The Division shall have newsletters published twice a year, spring and fall, which shall be mailed and/or distributed electronically to all affiliates of the Division.

2. A Newsletter Editor shall be appointed by the Management Board of the Division. The term of the editorship shall be three years, with possible reappointment.

ARTICLE IX

Division Awards

1. The following award(s) shall be presented annually:
   - Israel C. Russell - Awarded for major achievements in Limnogeology through contributions in research, teaching and service. Nominations should consist of a letter describing the Nominee's accomplishments in the field of limnogeology (broadly defined and including limnogeology, limnology and paleolimnology), service to students and teaching, and contributions to GSA, as well as a Curriculum Vitae. The Nominee need not be a member of the Division or of GSA, but must have made valuable contributions to the Society. The Russell Award Committee shall solicit nominations from the membership and present two candidates to the Management Board. The committee shall consist of six individuals (two members representing each of the following areas - limnogeology, limnology and paleolimnology), appointed by the Division Chair for rotating terms of two years each, and will confer as necessary to arrive at two candidates by means that they deem appropriate. The selection of the award recipient shall be by majority vote of the members of the Management Board, and shall be confirmed by vote of the Geological Society of America Council. The dossiers of nominees who did not receive the award in any given year will be retained and considered for two succeeding years; thus, nominations are valid for a total of three years. Updated information for carry-over candidates may be sent to the Division Treasurer during the ordinary call for nominations. Israel C. Russell Award

Committee members are encouraged to initiate nominations for the Award. Nominations for the Israel C. Russell award should be sent to the division Treasurer by March 1st.

- Kerry Kelts Student Research - These award(s) for undergraduate or graduate student research are named in honor of Kerry Kelts, a visionary limnogeologist and inspiring teacher. The Kerry Kelts Award Committee Members will comprise the management board of the Division, not including the student member, but any member may recuse themselves in case of a conflict of interest. This award application requires a summary of the proposed research and a short (two-page maximum) CV. The research summary must contain a title, a description of the proposed research, its limnogeological significance, why the award funds are needed for the project, and a brief description of the student's other funding sources. Maximum length is five pages, including figures and captions; the list of references cited is not included in this limit. Applications in PDF format should be sent to the Chair of the Limnogeology Division. The applicants name should be in all PDF file names. Applications are due by June 30th.

ARTICLE X
Rules and Amendment of the Bylaws

1. The Management Board, by majority vote, may adopt, rescind, or amend rules supplementing the bylaws.

2. Bylaws of the Division may be adopted, rescinded, or amended according to the following procedures: (a) approval by the Management Board, (b) approval by majority vote of voting affiliates of the Division at the annual business meeting or by mailed and/or online ballot, and (c) ratification by the Council.

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October 2007 – Language amended to conform with new GSA policy on who is eligible to vote and hold office.

October 2010 – added language for replacement of Vacancies, Article IV, Item 4.

May 2016 -- Language added to include Student membership of the Board and removal of non-performing officer. Division Awards also formally included in the bylaws.

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Sessions Sponsored by Limnogeology Division at the128th GSA at Baltimore

Abstracts deadline: **12th July 2016**

http://community.geosociety.org/gsa2016/home

T1. Pluvials, Atmospheric Rivers, Monsoons, and Water Availability in Western North America from the Quaternary into the Future: Modeling, Observations, and Paleo Reconstructions of Hydroclimate Extremes

Ingrid Hendy, Aradhna Tripati, Matthew E. Kirby
GSA Limnogeology Division; GSA Sedimentary Geology Division; SEPM (Society for Sedimentary Geology); GSA Archaeological Geology Division

Water availability in western North America has been critical for human populations through prehistory and will be into the future. This session showcases instrumental observations, modeling, and paleoenvironmental reconstructions of hydroclimate regimes.

T2. Reconstructing Environmental Controls on Societal Change from Prehistory to Present Day

Susann Stolze, Michelle F. Goman
GSA Limnogeology Division; GSA Archaeological Geology Division; American Quaternary Association; GSA Sedimentary Geology Division; GSA Geology and Society Division

This session welcomes papers reconstructing the nature and degree of environmental change and its influence on societal change through the Holocene. It will bring together researchers across disciplines in the Earth and archaeological sciences.

T16. Mudstone Evolution: From Deposition through Diagenesis

Sven Egenhoff, Neil Fishman
GSA Limnogeology Division; GSA Sedimentary Geology Division

Deposition and post-depositional modification of mudstones remain enigmatic. Nevertheless, their economic significance is universal as a source of energy or as household or industry raw material. This session will review all aspects of mudstone geology.

T35. Contamination and Human Impact Records from Lake and Estuarine Sediment

Johan C. Varekamp
GSA Limnogeology Division; Marine/Coastal Science Discipline; Paleontological Society

Lakes and estuaries carry archival information in their sediment on contaminant fluxes and changes in landscape and hydrology commonly caused by human activities. Reconstruction of pre-anthropogenic conditions aids in evaluating the severity of human impacts.

T108. Interaction of Physical and Biogeochemical Processes at Groundwater–Surface-Water Interfaces in Rivers, Lakes, Estuaries, and Coastal Marine Settings

Richard L. Smith, Sung Pil Hyun, Douglas B. Kent, J.K. Bohlke
GSA Limnogeology Division

Presentations are solicited that identify, quantify, and (or) characterize fluxes across groundwater–surface- water interfaces and the processes that alter or influence water and solute exchange.

T122. A Celebration of Lakes—Past and Present:

Tribute Session to Dan Livingstone

Scott W. Starratt, Johan C. Varekamp
GSA Limnogeology Division; GSA Quaternary Geology and Geomorphology Division; GSA Sedimentary Geology Division; Paleontological Society

This session celebrates lake science for and from a worldwide audience. Lakes are important freshwater reservoirs, and their sediments are archives of global change, pollution, and ecological succession.

T123. From Outcrop to Core: Integrating Paleoenvironmental and Paleoclimatic Records across Time and Space

Catherine C. Beck, Emily J. Beverly, Nathan Rabideaux, Mona Stockhecke
GSA Limnogeology Division; GSA Archaeological Geology Division; GSA Sedimentary Geology Division; GSA Soils and Soil Processes Interdisciplinary Interest Group

Scientific drilling of terrestrial sediments presents new opportunities for paleoenvironmental and paleoclimatic research. The goal of this session is to address the challenges of integrating core and outcrop studies, particularly those associated with paleontological or paleoanthropological records.

T124. Lake Deposits on Earth and Mars

Elizabeth H. Gierlowski-Kordesch (Please note: the session will be organized and chaired by the Division).
GSA Limnogeology Division; GSA Sedimentary Geology Division; SEPM (Society for Sedimentary Geology).

Lake deposits are the focus of geologic studies on Earth and have now been recognized on Mars. They are crucial for exploration and records for climate change and evolution of life and landscape.

T141. How to Talk Science: Effective Communication Strategies for the Sedimentary Crust

Lisa E. Park Boush, Phoebe Cohen, Danielle Serratos
Paleontological Society; SEPM (Society for Sedimentary Geology); STEPPE; GSA Limnogeology Division; GSA Sedimentary Geology Division; GSA Geology and Society Division

This session focuses on best practices and applications for communicating science related to Earth's sedimentary crust, including areas of deep-time climate change and evolution. Emphasis on broader impacts will also be made.

T180. The Legacy of Herbert E. Wright, Jr.: Seminal Contributions toward Understanding Interactions among Quaternary Climate, Landscape Processes, Vegetation, and Human Society

Emi Ito, Daniel R. Engstrom, Cathy Whitlock, Julie K. Stein
American Quaternary Association; GSA Archaeological Geology Division; GSA Limnogeology Division; GSA Quaternary Geology and Geomorphology Division

This session honors the contributions of Herbert E. Wright, Jr. (1917-2015) to our understanding of Quaternary environments and climate. Wright helped establish Quaternary science as a viable and important discipline in North American universities.

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Upcoming Meetings

Geological Society of America (GSA) Annual Convention

2016 Denver, Colorado, 25–28 September
2017 Seattle, Washington, 22–25 October

Joint International Meeting

2017 African Union Commission Conference Centre, Addis Ababa, Ethiopia 13-17 March

World Lakes Conference (WLC16)

The **16th World Lakes Conference (WLC16)** The Sixteenth World Lake Conference (WLC16) November 7-11th 2016 in Bali, Indonesia.

Deadline of abstract submission: June 7th, 2016

http://www.ilec.or.jp/en/wlc/new/?p=2864

Go to the Limnogeology Division website at:

http://rock.geosociety.org/limno/index.html

To get the latest information on other Limnogeology meetings and workshops…

David Warburton, Webmaster

If you have any news, photos, articles, upcoming conferences and recent publications, you would like to share with the division, please submit it to Michelle Goman at goman@sonoma.edu

Bernie Owen and Robin Renaut sitting on fossil flamingo nests (Scott et al., 2012) at Lake Magadi, summer 2015 (photo credit: Dan Deocampo)

Kay Behrensmeyer discussiing the stratigraphy of the Koora Graben with (L to R) Simon Riedl, Manfred Strecker, Robin Renaut, Tima ole Kikanei, Bernie Owen, Rene Dommain, and Lydia Olaka, summer 2015 (photo credit: Dan Deocampo)

Nathan Rabideaux Night shift at the Magadi drill site, summer 2014 (photo credit: Nathan Rabideaux)