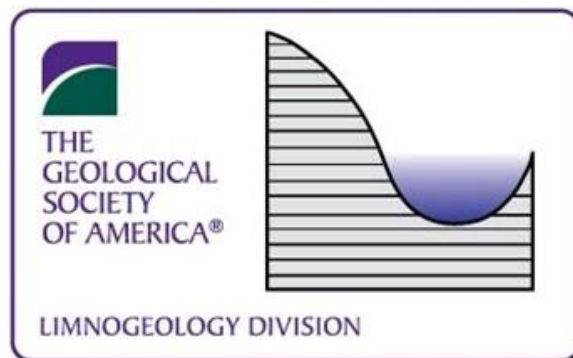


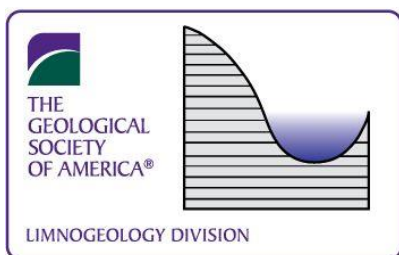
*Geological Society of America*  
***Limnogeology Division Newsletter***

Volume 14 Number 1  
September 2016



Grand Lake, Colorado (Image: Grand Lake Chamber of Commerce)





## ***Limnogeology Division Newsletter***

**Volume 14 Number 1**

**September 2016**

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## ***From the Editor***

**Michelle Goman**

*Rohnert Park, CA*

Welcome to the Fall 2016 edition of the Limnogeology Newsletter!

This edition of the Newsletter is shorter than normal given the earlier date for the Annual Meeting. Highlights include a message from outgoing chair Joop Varekamp and incoming chair Scott Starratt. It contains a list of sessions for the upcoming 128th Annual GSA Meeting in Denver, and other informational items including:

Don't forget to send me your news items, whether it be notes from the field, research lab spotlight, or recent publications.

Best and see you in Denver

Michelle (goman@sonoma.edu)

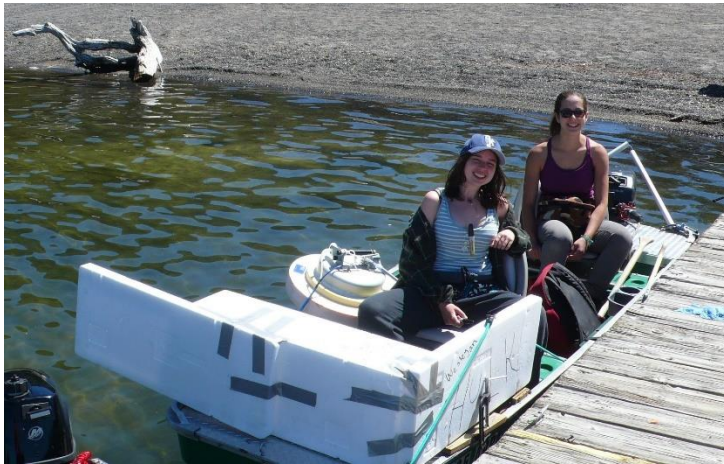


## *A Swansong of your current Chair*

**Joop Varekamp**  
*Wesleyan University, Middletown CT*



Two years went by before we knew it. Many great plans, most still in some state of progress. We do have our website now on the connected communities of GSA, while we still retain the original site for folks from outside GSA who want to know about Limnogeology. The highlights of my term were the award ceremony in 2015, with Andy Cohen being our Russell Awardee, and looking forward to this years' event in Denver for Alan Carroll. And of course, our Kerry Kelts student scholars, Ann Morey and this year, Danielle Haskett. The truly sad event during my term was the passing of Beth Gierlowski-Kordesch this year. I will remain active as past chair for another two years, at least hoping to build the website up to a glorious meeting place for Limnogeologists around the globe.



**Two Wesleyan undergraduates measuring CO<sub>2</sub> fluxes with a float chamber and analytical array on board.**

This summer I spent June on the Newberry lakes (OR) measuring CO<sub>2</sub> fluxes with two students, while a soft snow was falling on our humble but well-instrumented vessel. For many of us, apart from running our instruments in the lab, the great joy of being a limnogeologist is spending time in the most beautiful areas of the world. And keeping in tune with the title of this short piece, I hope to return next year to the Laguna Blanca in Argentina (above). This lake in the middle of the barren Patagonian desert, surrounded by dusty volcanoes, has an active ecosystem with an abundance of fish. Each summer, tens of thousands of black-necked swans spend a few weeks on the lake, doing 'their business' in the water, which most likely provides the nutrient input to keep this whole lake ecosystem kicking.

I am pleased to introduce to you our next Chair, Scott Starratt, who does not need much introduction because he is a well-known limnogeologist (and most of you voted for him!). Scott works at the US Geological Survey in Menlo Park, and is a specialist in diatoms as well as many other lake, coastal, and open marine critters. He presents his plans for the Division elsewhere in this newsletter. Our new Vice-Chair is Lisa Park Boush, who contributed to the foundation of the Division years ago. She is a limnogeologist working also on ‘beasties’ (ostracods), with a broad paleo climate and paleo environmental scope. She is professor at the University of Connecticut and Director of their Center of Integrative Geosciences program.

It has been an honor and a pleasure to serve you, and I hope to meet with many of you at the talks and posters at the upcoming Denver annual GSA meeting, and see you all at the Sed/Limno-business meeting.

~\*~

## ***Message from the Vice-Chair***

**Scott Starratt**

*U.S. Geological Survey, Menlo Park, CA*

Greetings from the 24<sup>th</sup> International Diatom Symposium. There were a number of presentations from lakes in exotic places, a few dealing with Holocene climate change and others with shorter-term environmental impacts on lakes, all through the “lens” of diatoms. While interesting, many of the interpretations were limited to the diatom story. In speaking with these scientists, most could see the value of other proxies in their research, but in many cases they did not have the opportunity to collaborate with limnologists or geologists. This seems to be an issue where we, as paleolimnologists and limnogeologists, could help. Reaching out across departmental, university, and agency boundaries can only benefit the whole earth science community.

While working at the USGS is rewarding, I often find myself looking for easier interaction with the broader lake community, and I could certainly benefit from interacting with younger scientists. I have always avoided working with students because I spend a lot of time in the office, looking at dusty books, and staring down a microscope. There isn’t much time for fun in the field. In the summer of 2014, I took a chance and participated in a project which was focused on giving summer interns at the USGS an opportunity to experience multi-disciplinary research projects. In my role as micropaleontologist/paleolimnologist I was able to introduce a promising undergraduate to the world of lakes. Together we explored early Pleistocene lake deposits in eastern California, finding ostracodes and diatoms in sediments well-dated by associated tephras. Ultimately, I found a convert to the lacustrine world only visible through a microscope. As a result I will be participating in the mentoring program at the annual meeting this year. I encourage others to join me. Who knows who you will meet?



Don't forget to stop by the Limnogeology Division booth at the GSA Exposition to find out what's new and how you can become more involved in division activities. I would especially encourage students to take advantage of the networking opportunities. And if you have the time, please participate in the field trip to the Florissant Fossil Beds National Monument on Thursday, September 29. If you have questions about the trip, please feel free to contact me ([ssstarrat@usgs.gov](mailto:ssstarrat@usgs.gov)).

~\*~

## *Incoming Officers*



**Vice-Chair:**  
Lisa Park-Boush  
(*University of Connecticut*)



**Student Representative:**  
Anne L. Billingsley  
(*University of Arizona*)

~\*~

## *Post conference Fieldtrip (9/29) Offered to Florissant Fossil Beds National Monument*



Join other limnogeologists on a half-day field trip to the world famous Florissant Fossil Beds National Monument led by the park paleontologist. We will meet at 10:00 am Thursday September 29, 2016 at the park visitors center. The trip is limited to 25 participants. Participants are responsible for their own transportation and park fees.

If you are interested please contact Scott Starratt (incoming Division Chair).

### **A Bit of Geology from the monument website –**

The rich deposits discovered at Florissant Fossil Beds give us an unusually detailed look at life in an ancient North America. Over 50,000 specimens have been found representing over 1,700 different species of animals and plants. These impressions of prehistoric plants and

animals are relatively young in geologic terms. The Florissant fossils hint at what life may have been like about 34 million years ago during the late Eocene.

Lahars from the Guffey Volcanic Center flowed swiftly down the mountains and into the valley that was Florissant. A stream flowing through the Florissant valley was dammed by one of these lahars, forming the first of three lakes into which the lower shale unit was deposited. Gradually, the lake filled with shale and ash from ongoing volcanic eruptions to the point where the lake almost disappeared and all that was left was a series of small streams cutting through a valley into which the sediments of the lower mudstone unit were deposited. It was at this time that the giant redwoods and other trees grew, only to be buried by a volcanic mudflow.



Berkeley UCMP

Following the burial of the trees, a second lahar flowed down the valley to the south of Florissant and created a dam which created another lake and allowed the sediments of the middle shale to be deposited. The middle shale unit is the primary shale unit visitors see when coming to Florissant.

Following a relatively quiet period of gradual lake sediment deposition, a debris flow (caprock conglomerate) filled the much of the lake. Evidence of this conglomerate being deposited into the lake comes in the form of water escape features. Lake shale (upper shale unit) deposition continued in the lake following the conglomerate event. The final unit deposited into the ancient lake, the upper pumice conglomerate, was a result of a large-scale eruption of pumice and ash from the Guffey Volcanic Complex

**DIRECTIONS:** Visitors traveling north/south on I-25: Exit at US 24 West, travel 35 miles to town of Florissant, then follow signs two miles south to the visitor center on Teller County 1. Visitors traveling east/west on US 24: Exit to the town of Florissant, then follow the signs two miles south on Teller County 1 to the visitor center.

Additional information on the Florissant Fossil Beds National Monument can be at <https://www.nps.gov/flfo/index.htm>.

This field trip is not an official GSA Limnogeology Division or GSA field trip.

~\*~

## DIVISION SWAG!

A limited edition T-shirt will be available for purchase at the Limnogeology Division booth #130. Limnogeology trading cards will also be available.

~\*~

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### *2016 Israel C. Russell Award*



The Israel C. Russell Award is awarded for major achievements in Limnogeology through contributions in research, teaching and service.

The 2016 Israel C. Russell Award winner is **Alan Carroll** (University of Wisconsin-Madison). The award will be presented to Alan at the annual Division Business Meeting on September 27<sup>th</sup> 6-8pm. We hope to see you there!

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## DENVER TO DO LIST!!!!

*COME VISIT THE LIMNOGEOLOGY DIVISION BOOTH, #130,  
IN THE EXHIBIT HALL!*

The 2016 Kerry Kelts Student Research Awardee is:

**Danielle R. Haskett** (University of Georgia, Athens, GA) with a project on  
“**Climate and Environmental Change in the Colorado Rocky Mountains during the  
late Quaternary: An Analogue for a Warm Future**”.

Danielle will be presented with her award at the annual Division Business Meeting on  
September 27<sup>th</sup> 6-8pm  
Congratulations to Danielle!





**25-28 SEPTEMBER**

**GSA2016**

**Denver, Colorado, USA**

Sessions Sponsored by Limnogeology Division at the 128<sup>th</sup> GSA at Denver

<http://community.geosociety.org/gsa2016/attendeeinfo/dates>

**DIVISION SPONSORED SESSIONS:**

T122. A Celebration of Lakes—Past and Present: In Honor of Dan Livingstone	Sunday, 25 September 2016: 8:00 AM-12:00 PM Room 207
T122. A Celebration of Lakes-Past and Present: In Honor of Dan Livingstone (Posters)	Sunday, 25 September 2016: 9:00 AM-5:30 PM Exhibit Hall E/F
T125. Experimental Approaches and Technology in Service of Micropaleontology	Sunday, 25 September 2016: 8:00 AM-12:00 PM Room 507
T181. Undergraduate Research Talks: The Next Step in Student Research Projects	Sunday, 25 September 2016: 1:30 PM-5:30 PM Room 406
T123. From Outcrop to Core: Integrating Paleoenvironmental and Paleoclimatic Records across Time and Space	Sunday, 25 September 2016: 1:30 PM-5:30 PM Room 207
T127. Geoscience Applications of Diatom Micropaleontology: Celebrating the Career of John A. Barron	Sunday, 25 September 2016: 1:30 PM-5:30 PM Room 507
T132. Microfossil Proxies in Earth History	Monday, 26 September 2016: 8:00 AM-12:00 PM Room 505
T124. Lake Deposits on Earth and Mars: In Memory of Elizabeth H. Gierlowski-Koredesch	Monday, 26 September 2016: 8:00 AM-12:00 PM Room 207
T124. Lake Deposits on Earth and Mars: In Memory of Elizabeth H. Gierlowski-Koredesch (Posters)	Monday, 26 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T194. The Context of Our Origins: Geological Studies of Old World Fossil Primate and Hominin Sites	Monday, 26 September 2016: 8:00 AM-12:00 PM Room 401

T194. The Context of Our Origins: Geological Studies of Old World Fossil Primate and Hominin Sites (Posters)	Monday, 26 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
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	Monday, 26 September 2016: 10:00 AM-12:00 PM Room 404
T2. Reconstructing Environmental Controls on Societal Change from Prehistory to Present Day I	Monday, 26 September 2016: 8:00 AM-12:00 PM Room 301
T2. Reconstructing Environmental Controls on Societal Change from Prehistory to Present Day II	Monday, 26 September 2016: 1:30 PM-5:30 PM Room 301
T41. pXRF in the Geosciences: Applications to Environmental, Regional, and Exploration Geology	Monday, 26 September 2016: 1:30 PM-5:30 PM Room 404
T16. Mudstone Evolution: From Deposition through Diagenesis	Monday, 26 September 2016: 1:30 PM-5:30 PM Room 506
T132. Microfossil Proxies in Earth History (Posters)	Monday, 26 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T108. Interaction of Physical and Biogeochemical Processes at Groundwater–Surface-Water Interfaces in Rivers, Lakes, Estuaries, and Coastal Marine Settings	Tuesday, 27 September 2016: 8:00 AM-12:00 PM Room 501
T74. Climate Literacy in Formal and Informal Education, for Policy Makers and the Public, and Measures of Impact	Tuesday, 27 September 2016: 8:00 AM-12:00 PM Mile High Ballroom 4D
T2. Reconstructing Environmental Controls on Societal Change from Prehistory to Present Day (Posters)	Tuesday, 27 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T41. pXRF in the Geosciences: Applications to Environmental, Regional, and Exploration Geology (Posters)	Tuesday, 27 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T123. From Outcrop to Core: Integrating Paleoenvironmental and Paleoclimatic Records across Time and Space (Posters)	Tuesday, 27 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
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T108. Interaction of Physical and Biogeochemical Processes at Groundwater–Surface-Water Interfaces in Rivers, Lakes, Estuaries, and Coastal Marine Settings (Posters)	Tuesday, 27 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T35. Contamination and Human Impact Records from Lake and Estuarine Sediment (Posters)	Tuesday, 27 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T111. Polar Changes	Wednesday, 28 September 2016: 8:00 AM-12:00 PM Room 501
T180. The Legacy of Herbert E. Wright, Jr.: Seminal Contributions toward Understanding Interactions among Quaternary Climate, Landscape Processes, Vegetation, and Human Society	Wednesday, 28 September 2016: 8:00 AM-12:00 PM Room 407
T131. Marine and Terrestrial Records of Extreme Climates and Extinction: Making Sense of Similarities and Differences (Posters)	Wednesday, 28 September 2016: 9:00 AM-6:30 PM Exhibit Hall E/F
T131. Marine and Terrestrial Records of Extreme Climates and Extinction: Making Sense of Similarities and Differences	Wednesday, 28 September 2016: 1:30 PM-5:30 PM Room 504

## **GSA Limnogeology Division Annual Business Meeting**

Tuesday, 27th September 2016: 6:00 PM-8:00 PM  
*Mile High Ballroom 1BCDE*

Joint Annual Business Meeting and Awards Reception of GSA Sedimentary Geology Division, GSA Limnogeology Division and Society for Sedimentary Geology (SEPM): Free Food and Cash Bar.

~\*~

In the past year, we've received notice of the passing of the following of our colleagues:

Donald Beck, John Costain, Curtis Elder, William Elisk, Elizabeth Gierlowski-Kordesch (Founding Member of the Division), I. Grossman, Daniel Livingstone and Herbert Wright.

## ***Upcoming Meetings***

**Geological Society of America (GSA) Annual Convention**

2017 Seattle, Washington, USA 22–25 October  
2018 Indianapolis, Indiana, USA 4–7 November  
2019 Denver, Colorado, USA 13–16 October

### **2017 GSA Section Meetings**

#### **Cordilleran Section**

23–25 May  
Honolulu, Hawaii

#### **Rocky Mountain Section**

9 –10 June  
Calgary, Alberta, Canada

#### **North-Central Section/ Northeastern Section Joint meeting**

19–21 March  
Pittsburgh, Pennsylvania

#### **South-Central Section**

13–14 March  
San Antonio, Texas

#### **Southeastern Section**

30–31 March  
Richmond, Virginia

### **Association of American Geographers (AAG) Annual Meeting**

**April 5-9 2017 Boston, Massachusetts**

<http://www.aag.org/cs/annualmeeting>

Numerous sessions organized by the Paleoenvironmental Change Specialty Group.  
Limnogeologists encouraged to participate! For more information please contact  
Limnogeology division secretary Michelle Goman. Abstract Deadline October 27<sup>th</sup>.

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***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](mailto:goman@sonoma.edu)**