

**CNYAPG
February 2021**



**Central New York Association
of Professional Geologists**

**Dr. John Halfman
(Hobart & William
Smith Colleges)**

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17 February 2021 Virtual Meeting– 6:00 PM

Dr. John Halfman (Hobart & William Smith Colleges) will present:

Finger Lakes Water Quality Cyanobacteria in our Lakes

Cyanobacteria (aka blue green algae) blooms have been detected in all of the Finger Lakes, some detections as early as 2012, and many blooms with high concentrations of microcystin and other toxins. They have negatively impacted municipal multiple drinking water supplies (e.g., Syracuse, Auburn), and the agricultural-tourism economy of the region. The majority of the blooms were located along the shoreline where people want to use the lake, and were seemingly random in both space and time.

This talk explores over 20 years of mid-lake water quality data from the eight eastern Finger Lakes to discern any limnological drivers for the onset of cyanobacteria blooms in our lakes from the Finger Lakes Institute's monitoring program. The data reveal warmer surface water temperatures, increased turbidity, increased spikes in nutrient (N & P) and algal concentrations. It also highlights nearshore and dockside meteorological and water quality data from Seneca and Owasco Lakes for potential bloom event predictors. Blooms typically happened on calm or nearly calm, sunny days, a day or two after a significant wind and/or rain event. Shoreline alignment significantly decreased nearshore winds speeds and altered wind directions and helped explain why blooms were fickle in both space and time. Unfortunately, blooms were not observed on every calm and sunny day. Water column nutrients were also too scarce to support the amount of N & P in the typical cyanobacteria bloom biomass.

***This is a FREE virtual event—Please register through the CNYAPG website
Zoom access instructions will be provided via email to registered attendees on the day of
the presentation***

Next virtual meeting - March 2021

*CNYAPG Monthly Newsletter
February 2021*

CNYAPG Newsletter

The CNYAPG Newsletter is a monthly publication of the Central New York Association of Professional Geologists dedicated to sharing upcoming events, delivering regular articles of interest and providing the Membership a forum for discussion.

The newsletter is prepared by the Officers and Board of Directors of CNYAPG (listed below).

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President's Message– February 2021

Looking back at January, I can honestly say it turned out much better than I thought it would. A New President in the Whitehouse, a history-making Vice President, we are headed back into the Paris Climate Agreement, and the vaccines are starting to roll out. Now, all we need is time and good weather.

I want to say thank you, again, to Dr. John Gartner of Norwich University for giving a really informative talk on the 20th regarding the geomorphic response to the major flood events associated with Hurricane Irene, in Vermont. Those of you interested in fluvial geomorphology and the hydrology of local streams and rivers got a lot of great information. A thanks also goes out to Dr. Justin Stroup of SUNY Oswego and Sean Pepling of Parratt-Wolff for getting John to present for us. I think this talk dovetailed beautifully with December's presentation by Dr. Lautz. I know those of us who work with students can't wait to get back out in the field. I know it has been too long since I put on a pair of waders and trek through a stream channel with a group of students in tow.

Back in September, I asked you to support the geologic sciences during this period of Covid. Our colleges and local schools are coming back into session for the spring. I call on you again to consider reaching out to our community and volunteering your knowledge and experience. Also, I have noted that other Geoscience organizations have followed the CNYAPGs model of virtual presentations and activities. Look for them and support them as well. CNYAPG's LinkedIn and Facebook pages are engaging Geoscientists, and we are continuing to look for new ways to engage our community. If anyone is interested in Geology Trivia Night or setting up a "Talk to a Scientist" night for the local community, contact us.

Now, as an African-American, I want to remind everyone that February is also African-American History month. As a scientist, I want to encourage you to familiarize yourself with some of the great American scientists who were of African ancestry. For example, have you heard of Benjamin Banneker? He was an African-American Astronomer and Mathematician with other technical talents listed to his credit. Banneker was the first to author a series of

President's Message (continued)...

Almanacs in the United States that accurately predicted the positions of the Sun, the Moon, and the planets. Born as a free person in 1731 in Maryland, Benjamin Banneker also worked with Andrew Ellicott to survey the boundaries of the District of Columbia.

I know some of you have heard of Matthew Henson. He too was born in Maryland but in 1866. Matthew Henson explored the arctic with Robert Peary and was by Peary's side when his expedition became the first to reach the geographic north pole of the Earth in 1909. There are dozens of other African Americans scientists I would like to mention, but I will leave it up to you to expand your knowledge of American scientific and technological history. As I have said, we all need to continue our personal journeys of exploration and learning.

There are also a lot of cool science events taking place this month. The Hope Mars orbiter, launched by the United Arab Emirates last year will arrive on the 9th. The orbiter will study the daily and seasonal weather patterns on Mars. The very next day, the Chinese Tianwen-1 arrives in orbit of Mars. This craft has a rover onboard, and if all goes well, the rover will attempt a landing sometime in May of this year. The rover will, among other things, look for liquid water in the subsurface using radar. Lastly, the Perseverance Mission arrives at Mars on the 18th. If the mission is successful, it will deliver the first powered aircraft to another planet, a Helicopter that will take aerial images of the surface of Mars from a few hundred meters and return to the rover periodically. Oh! I almost forgot to mention, the 11th of February is also the International Day of Women and Girls in Science, so let's all acknowledge the female scientists in our lives.

CNYAPG will be continuing our water theme with Dr. John Halfman of Hobart & William Smith colleges, who will give us a presentation entitled "Finger Lakes Water Quality: Cyanobacteria in our Lakes". Please register and join us on the 17th for what I am sure will be an excellent virtual presentation.

CNYAPG Governance

Membership Renewal

CNYAPG's membership period follows the CNYAPG meeting year from September through August. Renewals are due in September. To renew or become a new member, simply complete the membership form, available on our website at www.cnyapg.org. Membership is only \$25 per year and all money received is used in support of our organization.

Join CNYAPG at our social networking groups on [Facebook](#) and [LinkedIn](#). These sites (always under development) will provide online forums for discussion, as well as another way to inform our members and networking opportunities. For more information about our social media sites e-mail us at admin@cnyapg.org.

The CNYAPG was founded in 1993 to strengthen and advance the geological sciences. CNYAPG conducts regular meetings on the third Wednesday of each month from September to May. Meetings feature dinner and distinguished speakers whose presentations invite comment and discussion.



www.cnyapg.org
www.twitter.com/cnyapg

President's Message (continued)...

CNYAPG will also soon be holding new elections for new board of director members. We will be looking to elect a new Secretary, Treasurer, Associate Vice President and four new Directors. If you are a Geoscientist and want to help promote the science of Geology, please contact myself or any of the current board members.

I want to conclude with a well-known quote. Some words we can all use at this moment in our lives. "A river cuts through a rock, not because of its power, but because of its persistence." Hang in there.

Keep the faith.

Calvin K. Prothro; P.G.
President of CNYAPG

Programming Note & Upcoming Events

As noted previously, CNYAPG has temporarily transitioned to a virtual Zoom platform beginning with the October 2020 meeting.

February 17, 2021 6:00 PM– CNYAPG– *Finger Lakes Water Quality. Cyanobacteria in our Lakes*
Dr. John Halfman — Hobart & William Smith
Virtual Meeting– www.cnyapg.org

March 17, 2021 6:00 PM– CNYAPG– *Topic TBD*
Dr. Alka Singhal — Ramboll
Virtual Meeting– www.cnyapg.org

April 21, 2021 6:00 PM– CNYAPG– *2020 Scholarship award winner*
Nicolás Pérez-Consuegra – Syracuse University
Virtual Meeting– www.cnyapg.org

May 19, 2021 6:00 PM– CNYAPG– *Topic TBD*
Dr. Joe Levy– Colgate University
Virtual Meeting– www.cnyapg.org

We Need Your Input!

Do you have ideas of creative ways to engage members during this unprecedented time?

Interesting experiences to share? Email thoughts and ideas to prothro@sunyocc.edu



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