



Hudson – Mohawk Professional Geologists Association

NOVEMBER MEETING

In-Person
Meeting

Meeting
Sponsorship
Available

www.hmpga.net

Integrated bedrock geologic mapping in the Adirondack Highlands of New York

November 17, 2021

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Greg Walsh collects geologic data on Coot Hill in Crown Point, NY while mapping in the eastern Adirondacks Highlands.

Speaker: Greg Walsh
U.S. Geological Survey

Abstract: The complexly deformed Mesoproterozoic granulite facies rocks of the Adirondack Highlands present significant challenges for adequate assessment of natural and environmental resources. The vast ~27,000 km² area contains the fewest published modern bedrock geologic maps in the northeastern United States. Despite over a century of topical research, few peer-reviewed 1:24,000-scale bedrock geologic maps exist in the Adirondacks, and very few bedrock geologic maps have been published in the last 50 years. (cont'd on next page)

N O V E M B E R M E E T I N G

Abstract Cont'd: The USGS integrates detailed 1:24,000-scale bedrock geologic mapping with new LiDAR, rank 1 airborne geophysics, geochemistry, petrology, geochronology, economic geology, stratigraphy, and paleontology to improve our understanding of the Adirondack Mountains and the Champlain Valley. The research provides a new framework for investigations into the tectonic evolution of the Grenville orogeny and historically significant mineral occurrences in high-grade rocks including REE-bearing apatite, iron oxide, and graphite deposits. The presentation will highlight recent results from ongoing research in the eastern Adirondacks

About the Presenter: Greg Walsh received his B.S. in geology from the University of Massachusetts at Amherst and his M.S. in geology from the University of Vermont. He specializes in the mapping, structure, and tectonics of complexly deformed rocks, the integration of geologic data with hydrogeologic and mineral resource assessment studies, and the use of GIS as a mapping and analysis tool. He has trained students and geologists from the USA, Morocco, and Madagascar in geologic mapping, GIS, GPS, digital mapping, and U-Pb geochronology by SHRIMP. He managed mapping projects in Morocco, the completion of the 2011 bedrock geologic map of Vermont and conducted mapping Madagascar. He is currently a Project Chief and a Research Geologist with the Florence Bascom Geoscience Center at the USGS where he manages bedrock geologic mapping activities for the USGS in the northeastern United States. He has authored or co-authored over 230 publications, won multiple awards, and is a Fellow of the Geological Society of America.

Reservations are required by Monday

November 15, 2021

Whether attending the dinner
or only the presentation.

Register on-line at www.hmpga.net

Call or email Marie Cole at (518) 724-7254 • marie.cole@ramboll.com

Cost: \$10.00 for student members*
\$20.00 for dormant geologists
\$25.00 for members
\$30.00 for non-members
program only: Free

* Student dinner sponsorship available for qualifying students - contact Jesse Vollick • jesse.Vollick@ramboll.com

Location:	Century House	Time:	Social Hour	5:00pm
	997 New Loudon Road		Dinner	6:00pm
	Latham, NY 12110		Program	7:00pm

Sponsorship is available for this meeting! Dinner sponsors receive free dinner, a display table set up for the social hour and a 5 minute presentation to the dinner audience, prior to the presentation. Please contact Jesse Vollick at jesse.vollick@ramboll.com for more information.

President's Message

Dear HMPGA Members,

October's joint meeting with the New York State Museum, NYSGS and NYSCPG was a great success. Many thanks to Dr. Ed Landing for speaking and to the Museum staff for their time helping to coordinate the event and engagement during the open house. Also, congratulations to Dr. Landing for receiving the John M. Clarke medal. The Clarke Medal is presented to those former members of the NYSGS who have made significant contributions to the geological profession as part of their work at the Survey. During the medal ceremony, Dr. Chuck Ver Straeten highlighted the accomplishments of Dr. Landing. At the core of Dr. Ver Straeten's speech was the importance of mentorship, of which he a direct beneficiary of Dr. Landing's willingness to mentor others in the field of paleontology.

Dr. Ver Straeten's message about mentorship aligns with a tenet of HMPGA's purpose from our by-laws: disseminate geologic knowledge and exchange of information. This is an opportunity to remember that HMPGA represents much more than our monthly meetings. This is exemplified through our members volunteering to lead local high school students during field trip cave tours and participate in other outreach events. Mentorship opportunities can be small, like a chance encounter, or in the case of Drs. Landing and Ver Straeten, large and career changing. I encourage and challenge all of us to take the time to engage students at any level or our coworkers to disseminate geologic knowledge.

As of this writing we have a nearly complete speaker lineup for the 2021-2022 season. Thanks to everyone who made suggestions or reached out directly to prospective speakers. Please continue this as we begin to fill out the speaker lineup for the remainder of this season and the next. As always, please contact me with any feedback or suggestions for future events.

Stay healthy,

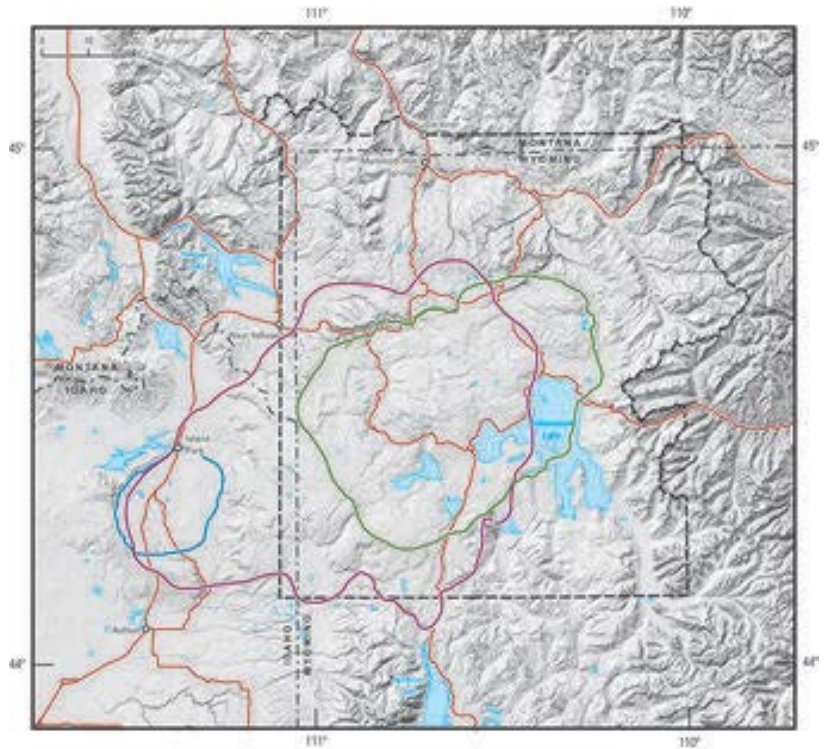
Jesse Vollick, P.G.
President 2021-2022

Henrys Fork Caldera: A glimpse into one possible future for Yellowstone

Mark Stelten

What will happen to Yellowstone once its rhyolite magma system shuts down? To understand the future, geologists look to the past—in this case, to Yellowstone Caldera’s older but smaller sibling, Henrys Fork Caldera!

https://www.usgs.gov/center-news/henrys-fork-caldera-a-glimpse-one-possible-future-yellowstone?qt-news_science_products=4#qt-news_science_products



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MINERAL OF THE MONTH

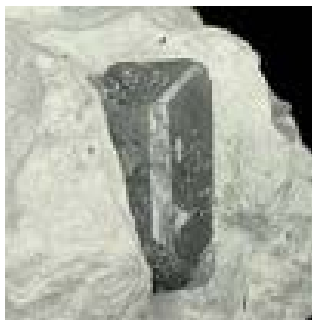
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Danburite is known for its distinct, well-formed crystals. Discovered as a distinct species in 1839, it was named after the city of Danbury, Connecticut, where it was first described.

System: Orthorhombic • Appearance: Colorless, white, yellow, brown, orange, pink, gray.

• Localities: Worldwide - Charcas, San Luis Potosi, Mexico is the most well known and proficient locality for large, transparent crystals • Chemical Composition: $\text{CaB}_2\text{Si}_2\text{O}_8$ •

Hardness: 7



<https://www.minerals.net/mineral/danburite.aspx>



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Volunteer opportunities

If you need volunteers for an event or would like to get involved in an event please contact Elizabeth Moore at:
mooreelizabeth.07@gmail.com

Job Openings:

Engineering Geologist/Mining Engineer

H2H Geoscience Engineering, PLLC

Troy, NY

Full-Time



H2H Geoscience Engineering, PLLC is a rapidly growing geologic, engineering and environmental consulting firm currently seeking an entry level candidate to join our dynamic team of professionals.

Qualified candidates must have a Bachelor's degree, B.Sc. in Mining Engineering is preferred, or in an associated technical field such as Geology, Geological Engineering, or Civil Engineering. PE/CPG preferred. At least 5 years of geology, mining engineering, or operations experience is preferred.

This position requires willingness to travel to sites throughout the eastern United States for up to a week at a time, ability to work both in the field and office efficiently, excellent communication skills and attention to detail.

For immediate consideration, please e-mail resume to rhisert@h2hg-e.com with "Engineer/Geologist" as the subject header.

Please see the HMPGA website for more details:
<http://www.hmpga.wildapricot.org/page-1604462>

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HMPGA PROGRAM DIRECTORS

Being active in HMPGA is a fully volunteer activity that often demands a great deal of attention.

The following members chair this year's committees and we thank them:

Webmaster	Scott Hulseapple	shulseapple@alphageoscience.com
Newsletter	Josh Gowan	jgowan@alphageoscience.com
Educational Outreach	Joe Osso	Joseph.Osso@nyserda.ny.gov
Programs	Jesse Vollick	Jesse.vollick@ramboll.com
Membership	Vacant	

HMPGA CALENDAR

DATE	SPEAKER	TOPIC
November 17, 2021	Greg Walsh USGS	USGS new efforts at geologic mapping, airborne geophysics, geochronology, geochemical sampling in the ADKs
December 15, 2021	Holiday Party	Gathering at the Century House
January 19, 2022	Jon S. Fox, PG Fox Professional Geology, PLLC	Title TBD - petrography/reactive minerals in selected bedrock formations (and associated geochemical considerations such as abiotic natural attenuation)

OTHER EVENTS:

Watch our website (<http://www.hmpga.wildapricot.org/>), Facebook, and LinkedIn for announcements of future events!



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N O V E M B E R ' S

G E O - C R Y P T O C I P H E R

CLUE: D = P

Each letter of the expression is substituted by another letter.

MQWO MW KWEFEKGPYP VGW, MQHY FWKHIS JGKQY

HMHGY NP?

ENZ ZWIEZVP HLL FEPY GO HO HOYQZEDEIWOW QGHYNP!

O C T O B E R ' S S O L U T I O N

G E O - C R Y P T O C I P H E R

TO PREPARE FOR CRYSTALLOGRAPHY CLASS, THE GEOLOGY STUDENT TRIED ISOMETRIC EXERCISES



Eastern New York (ENY) Chapter of the Air & Waste Management Association (MASS-A&WMA). They encompass the greater Capital District and Hudson Valley region of eastern New York State. A professional non-for-profit association of engineers and scientists working in the environmental field, with a particular focus on issues related to air and waste. www.awmanenychapter.wildMAYicot.org



The Geological Society of America (GSA) strives to be a leader in advancing the geosciences, while enhancing the professional growth of its members, and promoting the geosciences in the service of humankind. www.geosociety.org



The New York State Museum is a major research and educational institution. It is dedicated to promoting inquiry and advancing knowledge in the fields of geology, biology, anthropology, and history, through the investigation of material evidence germane to New York State's past, present and future. www.nysm.nysed.gov



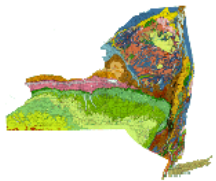
New York State Council of Professional Geologists (NYSCPG) strives to strengthen and advance the geologic sciences as a profession, promote the protection of public health and welfare and the environment through the professional practice of geologic sciences, and create high standards of ethical conduct among its members and within the profession of geology, as well as the legal standing of geologists and their ability to practice geology in New York State by promoting the licensing of geologists in New York State through statutory regulation. www.nyscpge.org

Environmental Breakfast Club

The Capital District Environmental Breakfast Club is an informal group of environmental professionals that meets monthly to discuss current environmental issues. Each meeting features a speaker on a topic of interest, a regulatory update, and an open forum. Meetings are held on the first Friday of each month except July and August. The Environmental Breakfast Club meets at the Holiday Inn Turf on Wolf Road in Colonie, New York. Meetings start at 7:30 am. The cost is \$15 per person, which includes a full breakfast buffet. www.youngsommer.com



Buffalo Association of Professional Geologists (BAPG) conducts regular membership meetings on the third Wednesday of the month, January through June and September through November. Meetings feature distinguished speakers and interesting topics. Field trips and technical seminars sponsored by the BAPG encourage the exchange of scholarship and expertise. www.bapg.org



Central NY Association of Professional Geologists (CNYAPG) conducts regular meetings on the second Thursday of each month, unless otherwise posted, from September to May. Meetings feature dinner and distinguished speakers whose presentations invite comment and discussion. www.cnyapg.org



Long Island Association of Professional Geologists (LIAPG) is a not-for-profit professional organization dedicated to the professional and business needs of geologists located in the Long Island / Metro New York area. www.lipg.org



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