



Hudson - Mohawk Professional Geologists Association

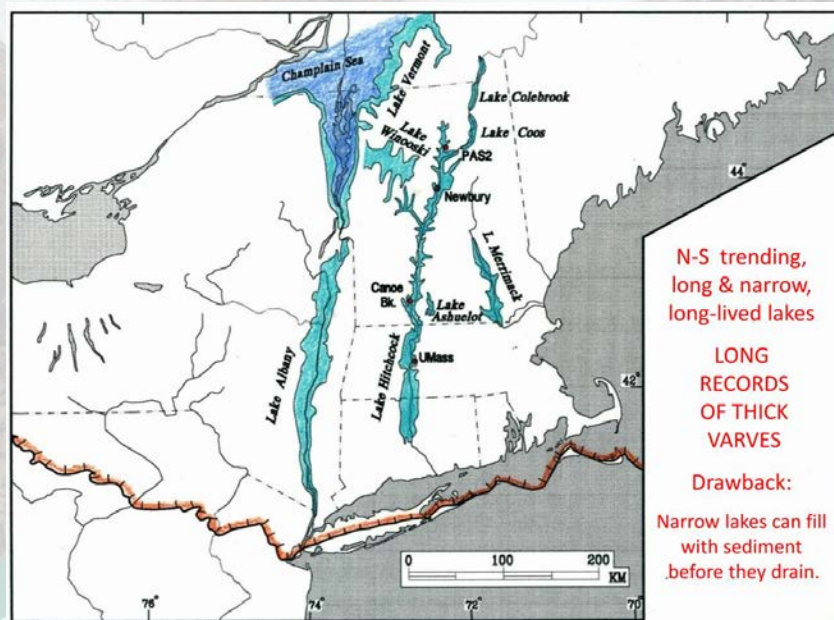
MARCH MEETING

www.hmpga.net

March 15, 2023



The Deglaciation of New England and its Relation to Climate and Correlation to Glacial Events in New York



Speaker: Jack Ridge, PhD
Dept. of Earth and Climate Sciences, Tufts University

This course is approved for 1 PDH

Abstract: The formulation of a complete and accurate chronology of the last deglaciation in the northeastern U.S. is hampered in many places by a lack of radiocarbon ages that can be tied to deglacial ice front positions and events such as readvances, and the formation and drainage of glacial lakes. In most places it prevents us from clearly determining rates of ice recession and the relationship between deglacial events and climate oscillations depicted in North Atlantic climate records, specifically ice core records from north-central Greenland. In New England a continuous and well calibrated record of deglaciation can be derived from a revamped long varve chronology (5659 years) and the radiocarbon dating of plant fossils in the varves. The varve records have the added advantage

A
G
P
M
H

M A R C H M E E T I N G

Abstract: (cont'd) of representing a record of glacial melting rates for the receding glacier that can be matched to and resemble, down to a sub-century scale, the oxygen isotope temperature record in Greenland. The periods of thinner (low melting) and thicker (high melting) varves in New England all correspond to cooling and warming events in Greenland and indicate that New England deglaciation rates and events are in lock step with North Atlantic climate. Glacial readvances do not appear to be glaciological adjustments such as glacial surges that are not-directly related to climate oscillations. In New York there is no continuous varve record but only a relative age record of the formation and drainage of glacial lakes in which only relatively short varve records have been assembled. Paleomagnetic records of remanent declination can be matched from both New York lakes and varves in New England leading to a correlation between the areas to within ~300 years. This correlation and the calibration of varves in New England allows us to compare and correlate glacial events that match across the region well within the uncertainty of paleomagnetic correlations and radiocarbon ages. Across the Northeast, glacial readvances match and depict periods of ice recession with accelerating rates of deglaciation through time that are punctuated by readvances and end moraine-building events. In order to create such a record, it has been necessary to fuse varve, radiocarbon, morpho-stratigraphic, and paleomagnetic records to create a continuous and expanded chronology of deglaciation.

About the Presenter: Jack's research interests lie in the reconstruction of the last deglaciation in the northeastern U.S., primarily as indicated by the annual layering (varves) of sediments from glacial lakes. This work has involved correcting the New England Varve Chronology, calibrating it with radiocarbon ages, and expanding its paleomagnetic declination record in order to correlate varve stratigraphy across a wider geographic area. The main goal of this research is to assemble high-precision (annual) records of terrestrial glacial events in the northeastern U.S. that can be compared to regional and global records of climate. This comparison can be used to test a number of hypotheses regarding the mechanisms for rapid climate change events at the end of the last glaciation and the interactions of terrestrial ice sheets, the ocean, and the atmosphere in the North Atlantic region as they relate to ice age climate.

An additional, more local, research interest of his is the geology of the Middlesex Fells Reservation, the largest forest preserve in an urban area in the U.S. Since 2008, Jack has satisfied his addiction to field geology by working in the Middlesex Fells. He describes it as very educational and rewarding to involve himself in local glacial geology as well as bedrock geology. Learn more about his Fells research and outreach project, The Geology of the Middlesex Fells.

Reservations are required by Monday March 13, 2023

Whether attending the dinner or only the in-person presentation

Register on-line at www.hmpga.net

Questions? Call or email Jonathan Dippert at (518) 786-7563 • j.dippert@ctmale.com

Cost: \$10.00 for student members*

\$25.00 for dormant geologists

\$30.00 for members

\$35.00 for non-members

In-person program only: Free

+PDH certificate available for: \$5.00 (member w/ dinner) •

\$10.00 (member for program only) • \$20 (non-member)

* Student dinner sponsorship available for qualifying students - contact Jonathan Dippert • j.dippert@ctmale.com

Location: Century House
997 New Loudon Road
Latham, NY 12110

Time: Social Hour 5:00pm
Dinner 6:00pm
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 Jonathan Dippert at j.dippert@ctmale.com for more information.

Meeting
Sponsorship
Available

President's Message

Dear HMPGA Members,

Thank you to David Desimone for pinch-hitting last minute and giving a great presentation at February's Annual Donald Cadwell Memorial Lecture on Glacial Geology. We would also like to thank February's meeting sponsor - Geotech Environmental, Inc. and Field Sink. Should you want to sponsor any future meeting please reach out to myself or our Program Chair Jon Dippert. Our March meeting will include a presentation by Dr. Jack Ridge of Tufts University, see the meeting flyer for more information.

Two reminders regarding current and upcoming events:

- 1) The Annual 2023 Field Camp Scholarship application is live on our website. It is eligible for any student who is majoring in geology, or earth science, is at least a sophomore, and is a resident of or attending a college or university in New York. The Board encourages everyone to spread the word about this scholarship!
- 2) April marks the return of the Student Expo. This event will take place during April's social hour and is a great opportunity for students to present their research and make connections in the industry - some may be looking for employment in the area!

Speaking of employment; The newsletter and website include a job postings section. If you or your company are looking to fill any geologist positions for the busy spring/summer field season now would be a great time to post it with us!

Thank you and I look forward to seeing you all this month's meeting,

Brian Taylor, P.G.

President 2022-2023

Volunteer Opportunities

Your opportunities here.

EVENTS

March HMPGA Meeting 3/15:
Jack Ridge - Deglaciation of New England

2023 Lester W. Strock Lecture in Geosciences
4/15: Skidmore College 5:30-6:30 pm

Geology Rocks 4/13 Featuring: Dead Meat at
The Coliseum, White Plains

April HMPGA Meeting 4/19:
Joint meeting with NEAIPG, Student Poster
Session

BOARD MEMBERS

Scott Hulseapple
(518) 348-6995

shulseapple@alphageoscience.com

Danylo Kulczycky
(315)382-8777

Dkulczycky@pwinc.com

George Pafumi
rockearth@aol.com

Stephen Truex
stefan.truex@hrpassociates.com

Dax Soule
Dax.Soule@qc.cuny.edu

Jonathan Dippert
j.dippert@ctmale.com

Matthew Dupee
mdupee@alphageoscience.com

Fox Professional Geology, PLLC

Petrography and Geochemistry Services
Licensed and Insured

Jon S. Fox, P.G.
Owner/Principal Geologist

(315) 935-5467
jon.fox@jonfoxpg.com
www.jonfoxpg.com



Environmental Petrography Services

We characterize the mineralogy/chemistry, texture, structure, porosity, and organic matter content of rock, soil, or sediment to assist and enhance environmental investigation

- ❖ Optical Microscopy
- ❖ X-Ray Powder Diffraction
- ❖ Scanning Electron Microscopy
- ❖ Electron Probe Microanalysis
- ❖ Energy and Wavelength Dispersive Spectroscopy

Geochemistry/Chemical Hydrogeology

We assist with evaluation techniques focused on the chemical properties of water and its interactions with rock, soil, or sediment as a compliment to standard hydrogeology techniques, which typically focus on the physical properties and available quantity of water (i.e., flow paths/flow rates)

- ❖ Water Types/Hydrochemical Facies Evaluation
- ❖ Graphical Data Analysis/Mapping
- ❖ Geochemical Calculations/Modeling
- ❖ Statistical Analysis

geotech

Ground Water Sampling, Monitoring
& Remediation Equipment

Peter M. Murray – Regional Sales Manager
PeterM@geotechenv.com
Cell 802-310-6357
1-800-558-5325

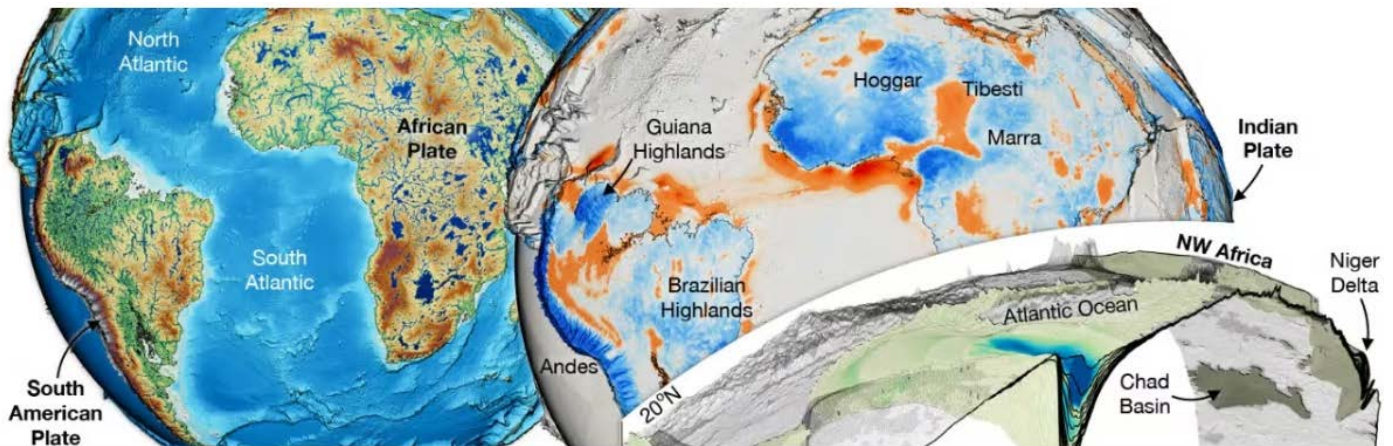
Geotech Environmental Equipment, Inc.
15 Tigan Street, Suite 1503
Winooski, Vermont 05404
Phone 802-651-3050 FAX 802-651-3051

Corporate Headquarters

2650 East 40th Avenue
Denver, Colorado 80205
1-800-833-7958
Phone 303-320-4764
FAX 303-322-7242
www.geotechenv.com

Most detailed geological model reveals Earth's past 100 million years

The University of Sydney, March, 2023



For the first time, scientists have a high-resolution model of how today's geophysical landscapes were created and how millions of tonnes of sediment have flowed to the oceans.

See more here:

<https://www.sydney.edu.au/news-opinion/news/2023/03/03/most-detailed-geological-model-reveals-earths-past-100-million-years-science.html>



PWGC
CLIENT DRIVEN SOLUTIONS

- Mine Planning
- Reserves Analysis & Stockpile Inventories
 - Stormwater Design, Permitting, & Compliance
 - Hydrogeologic Impact Studies
- Petroleum & Chemical Bulk Storage Permitting, Compliance, & SPCC Plans
 - Air Permitting & Compliance
 - Energy/Sustainability Solutions



Maryann Ashworth, PG | 63 Putnam Street, Suite 202, Saratoga Springs, NY 12866 | 518-335-3636

P.W. Grosser Consulting, Inc.

Bohemia, NY • New York, NY • Syracuse, NY • Saratoga Springs, NY • Seattle, WA • Shelton, CT

MARCH'S GEO-CRYPTOQUOTE

CLUES: Y = V, B = N

(Note: Puzzle is a quotation related to geology. Each letter of the quotation is substituted by another letter.)

"K XWUWKQVSV OTYX T VTPQBK-IWZCV

IXEXELXI"

-BXQU TIEVSIWBK

FEBRUARY'S GEO-CRYPTOCIPHER SOLUTION

"LOOK, THE WORLD TEMPTS OUR EYE, AND WE WOULD KNOW IT ALL, WE MAP THE STARRY SKY, WE MINE THE EARTHEN BALL" - MATTHEW ARNOLD

AECOM Environment -

a new global business line that utilizes the environmental management resources of **Earth Tech, ENSR, STS and Metcalf & Eddy.**

With over 4,200 staff worldwide in 20 countries, AECOM Environment is one of five new globally integrated business lines of AECOM (AECOM Water, AECOM Transportation, AECOM Design, AECOM Energy and Power). As AECOM Environment, we can offer clients broader environmental services with greater technical expertise across more geographies. Plus, we can deliver more value by leveraging the full resources of AECOM's worldwide staff of over 43,000 people in 450+ offices.

AECOM

AECOM • 40 British American Blvd. • Latham, NY 12110
518.951.2200 • www.aecom.com

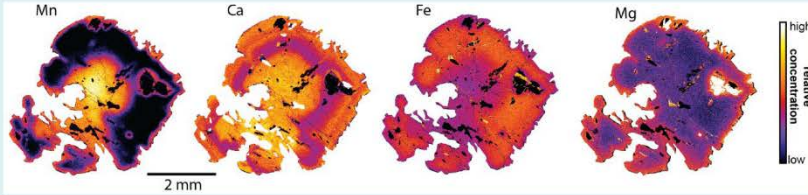
Corbett Industrial Cleaning Services, Inc.



Lynne Farrell, Project Manager

Serving New York, New Jersey and New England
lfarrell@corbettindustrial.com | Office 518-439-3950 Cell 518-688-7393
www.corbettindustrialcleaning.com

2023 Lester W. Strock Lecture in Geosciences



Tuesday, April 4
5:30-6:30 pm
Emerson
Auditorium
Skidmore College

Surficial or Deep: what drives extreme rates of mountain building in the western Himalaya?



Dr. Victor E. Guevara
Assistant Professor
Department of Geology, Amherst College



LaBella
Powered by partnership.

Remediation Solutions
Environmental Consulting
Drilling Applications
Litigation Support

LABELLAPC.COM
(518) 885-5383



Title: Environmental Geologist / Hydrogeologist

Company: C.T. Male Associates

Location: Latham or Poughkeepsie, NY

Brief Description: C.T. Male Associates, a multi-discipline consulting firm in the Northeast, is seeking a driven and hands-on Environmental Geologist / Hydrogeologist to join our Latham or Poughkeepsie, NY team. This full-time position offers a complete benefits package (including comprehensive health insurance, 401(k) plan, bonus program, educational assistance/professional development programs, company-paid life insurance, and much more), and a variety of exciting projects across disciplines with technical and managerial growth opportunities that provide the experience necessary to obtain/maintain your professional registration. The successful candidate has strong technical abilities, and excellent organizational and communication skills.

Links: Latham - <https://www.applicantpro.com/openings/ctmale/jobs/2636228-40142>

Poughkeepsie - <https://www.applicantpro.com/openings/ctmale/jobs/2637929-40142>

Title: Geologist / Hydrogeologist

Company: Alpha Geoscience

Location: Clifton Park, NY

Brief Description: Alpha Geoscience, a geological consulting firm in upstate New York, is seeking a geologist with 2-5 years of experience, with a Bachelor of Science Degree, or higher, in Geology. Experience or educational background in stratigraphy, structural geology, hydrogeology, petrology, and geological field methods is required. A detail-oriented individual with interest or experience in rock core logging and familiarity with drilling oversight is preferred. Candidate is expected to conduct field and office work related to mining, water supply, and environmental projects. Travel is required, as needed, to support project assignments. This is a full-time position and includes a complete benefits package including health insurance, 401(k) plan, and bonus program.

Link to Posting: <https://www.alphageoscience.com/about-us/career-opportunities/>

OFFICERS

President

Brian Taylor
(518) 560-5907

BFTaylor@BrwnCald.com

Vice President

Josh Gowan
(518) 348-6995

jgowan@alphageoscience.com

Treasurer

Elizabeth Moore
(518)812-6984

Mooreelizabeth.07@gmail.com

Secretary

Dax Soule
Dax.Soule@qc.cuny.edu

Past President

Jesse Vollick
(518) 724-7265
jesse.Vollick@ramboll.com

Alpha Geoscience

Professional Geologic and Hydrogeologic Consulting

Independent Laboratory Data Validation

Emergent Contaminants **Quality Assurance/Quality Control**
PFOS, PFOA, and other PFAS Validation of soil, water, and air data
1,4-Dioxane Preparation of EDDs, SOPs, & QAPPS

For Services, contact:
Scott Hulseapple, PG
shulseapple@alphageoscience.com

Computer Modeling

Ground Water	Surface Water
Water Budget	Hydrology and Hydraulics
Mounding Analysis	Dam Breach
Fate & Transport Modeling	Storm Water Runoff

Other Service Areas Include

Environmental Investigations
Mining • Water Resources • Energy • Expert Opinion
Geotechnical • GIS and Data Management



679 Plank Road • Clifton Park, New York 12065 • Ph: 518-348-6995
www.alphageoscience.com

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	Evan Rafferty	erafferty@alphageoscience.com
Newsletter	Josh Gowan	jgowan@alphageoscience.com
Educational Outreach	Joe Osso	Joseph.Osso@nyserda.ny.gov
Programs	Jonathan Dippert	J.Dippert@ctmale.com
Membership	Vacant	

HMPGA CALENDAR

DATE	SPEAKER	TOPIC
March 15, 2023	Jack Ridge, PhD, Tufts University	The Deglaciation of New England and its Relation to Climate and Correlation to Glacial Events in New York
April 19, 2023	Felicia Bechtel, RETTEW	TBA - Additionally, the student poster session returns!
May 17, 2023	TBD	TBD

OTHER EVENTS:

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



**parratt
wolff inc**
1969 - 2019

- Sonic Drilling**
- Direct Push - Geoprobe
- Auger, Air and Fluid Rotary Drilling
- Rock Coring and Casing Advancement
- Soil, Vapor and Groundwater Sampling
- Direct Sensing- MiHpt - OIHPT - HPT - EC**
- Well Installation, Rehabilitation and Development
- Borehole Geophysical and Video Logging
- Electrode and Inclinator Installations
- Vacuum Excavation - Soft Digging**
- Injection Services
- Packer Testing

Employee Owned Company Providing Quality Geotechnical and Environmental Drilling Services Since 1969
 Syracuse, NY (800) 782-7260 • Lewisburg, PA (570) 523-8913 • Hillsborough, NC (919) 644-2814
www.pwinc.com • info@pwinc.com

Corporate Member Contacts 2022 - 2023

AECOM	Walter Howard	518.951.2200
Alpha Geoscience	Scott Hulseapple	518.348.6995
Brown & Caldwell	Frank Williams	518.560.5912
Continental Placer	Bill Miller	518.458.9203
Corbett Industrial Cleaners	Lynne Farrell	518.688.7393
C.T. Male Associates	Mark Williams	518.786.7463
Fox Professional Geology, PLLC	Jon Fox	315.935.5467
Geotech Environmental Equipment, Inc.	Peter Murray	802.651.3050
Griggs - Lang Consulting Geologists and Engineers, P.C.	Jeff Lang	518.270.5920
H2H Geoscience Engineering	Richard Hisert	518.270.1620
Hanson VanVleet, LLC	Kirby VanVleet	518.371.7940
Hydrogeologic, Inc	Eric Evans	518.877.0309
LaBella Associates (fka Aztech Environmental Technologies)	Donica Anderson	518.885.5383
Northeastern Environmental Technologies Corp	Jeff Wink	518.884.8545
Pace Analytical	Buddy Beames	518.357.3250
Parratt Wolff, Inc.	Danylo Kulczycky "DK"	800.782.7260
Preferred Environmental Services	Jill Haimson	516.546.1100
PVE Sheffler	Chris Brown	845.454.2544
PW Grosser Consulting, Inc.	Maryann Ashworth	518.335.3636
Ramboll Americas Engineering Solutions, Inc.	Jesse Vollick	518.724.7265
SGS North America	Lynne Kuhl	732.329.0200
Sterling Environmental Engineering, P.C.	Andrew Millspaugh	518.456.4900
Stewarts Shops	Tim Johncox	518.488.8647



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



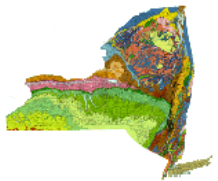
New York State Council of Professional Geologists (NYSCPG) strives to strengthen and advance the geologic sciences as a profession, promote the protection of public health and welfare and the environment through the professional practice of geologic sciences, and create high standards of ethical conduct 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.nyscp.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.liapg.org