



Hudson - Mohawk Professional Geologists Association

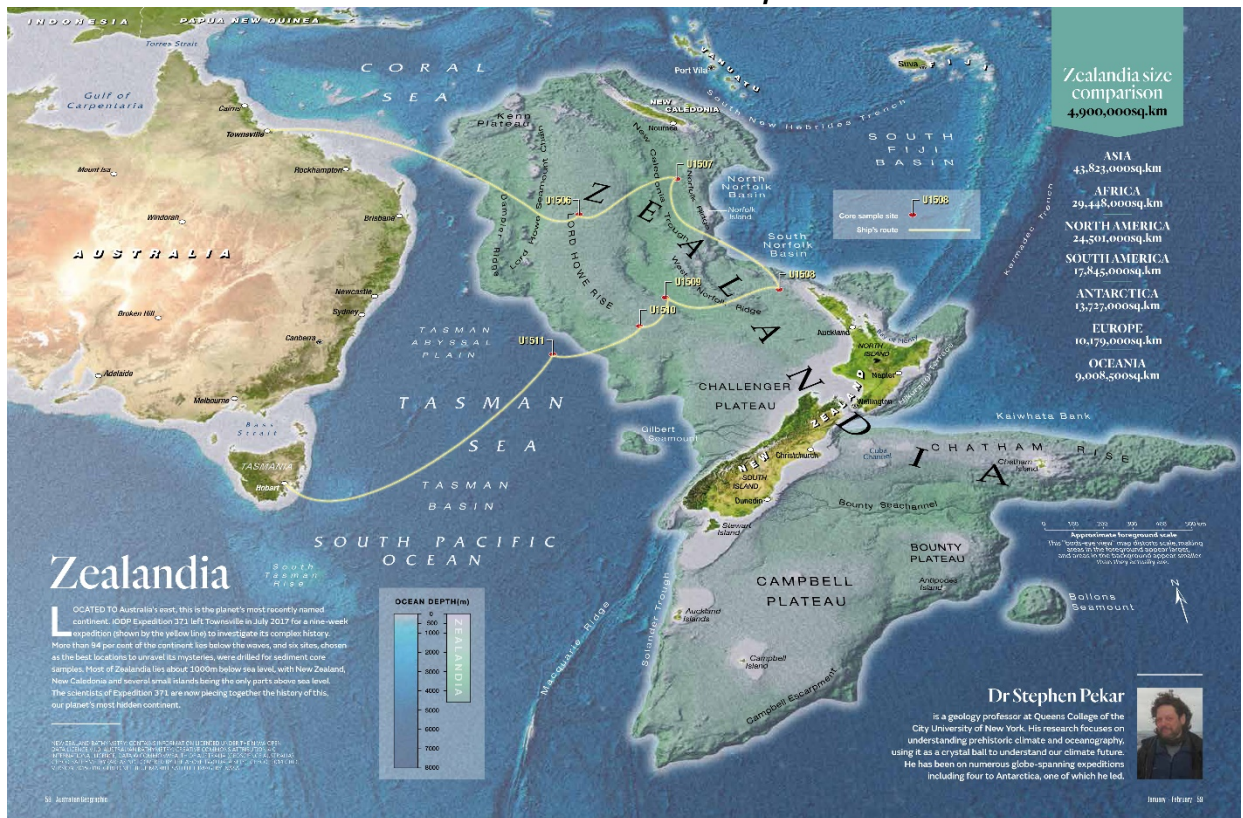
APRIL MEETING

www.hmpga.net



April 20, 2022

Looking Back to Our Future: Exploring the Tectonic and Climatic History of the Newly Named Eighth Continent of the World, Zealandia



Stephen Pekar, PhD

School of Earth and Environmental Sciences
Queens College

This course has been approved for 1 PDH+

Abstract: Geologist and paleoclimatologist Dr. Stephen Pekar will discuss some of the groundbreaking discoveries on past climate changes, drawn from his latest oceanic expedition to the newly named eighth continent called Zealandia. In 2017, Dr. Pekar was an on-ship scientist aboard an International Ocean Discovery (IODP) expedition (<https://www.iodp.org/about-iodp/about-iodp#>), and while carrying Explorer's Club flag, he was joined by a team of scientists from around the world to explore the geologic and climatic history of Zealandia. (cont'd)

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Abstract: (cont'd) This expedition has rewritten the history of Zealandia by reconstructing the climatic and geologic history of Zealandia back to the time of the dinosaurs. To reach their scientific goals, the team obtained sediments cores from six locations on and near Zealandia by extending drilling pipe through over three miles of ocean water and recovering sediments deposited over 68 million years ago that were as deep as 2,800 feet below the sea floor.

About the Presenter: Dr. Stephen Pekar is a geology professor in the School of Earth and Environmental Sciences at Queens College and has researched past climate and oceanographic changes during times (16- 55 million years ago) when CO₂ was as high as what is predicted for the 21st century (500-1000 ppm). With CO₂ is rising rapidly today due to anthropogenic fossil fuel use and changes in land use (e.g., deforestation, etc.), Humanity has started an uncontrolled experiment that is like putting our climate on a "hot plate". With Greenhouse gases rising to levels not seen in tens of millions of years, exploring these past time intervals for him is like "Looking Back to Our Future". To investigate climate change of the past, he looks at sediments, microfossil (i.e., the shells made by one-celled organisms), and geochemical data obtained from cores obtained from near-shore to deep-sea locations ranging from the tropics to Antarctica. His research has taken him on expeditions around the world, including four to Antarctica, one of which he was co-project leader.

Dr. Pekar is a Queens native, growing up in the Rockaways and attending Queens College, first as a 20th century music composition major and ended up studying Geology and getting his Ph.D. at Rutgers University, followed by being a Post-Doctoral Research Scientist at Columbia University. He is enthralled with exploring and discovering new places, cultures, and ideas. He has traveled to all eight continents and has been to over 60 countries, working in six of them ranging from archeology in France, grape picking in Germany, movie extra in China, to house pianist in a restaurant in Israel.

Reservations are required by Monday

April 18, 2022

Whether attending the dinner or only the in-person 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*

\$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 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,

As a follow up to my previous President's Message, thanks to everyone so far who has volunteered to participate in the high school student field trips to Howe's Cave. Volunteers are still needed on Thursday, May 12, 2022; Friday, May 13, 2022; Thursday, May 26, 2022; and Friday, May 27, 2022.

My thanks to Dr. Christopher Walcek for presenting at the March joint meeting with the Eastern New York Chapter of the Air & Waste Management Association. We've been hosting collaborative meetings with AWMA for several years and I look forward to the continuation of these events in the future. HMPGA's upcoming May meeting will be a joint meeting with the Northeast Section of the American Institute of Professional Geologists. In advance of the evening event on May 18, NEAIPG will be hosting a field trip to the Saratoga Spa State Park from 1:30 to 3:00 pm - water and snacks to be provided. Additional details for the field trip and joint meeting will be forthcoming.

The May meeting represents our final meeting for the spring term before the summer hiatus. Planning for HMPGA's summer outing is underway and I hope to be able to share details in the next newsletter. I look forward to seeing you at these upcoming events and at this week's monthly meeting on Wednesday, April 20.

Stay healthy,

Jesse Vollick, P.G.

President 2021-2022

Stunning Subsurface Images of Yellowstone National Park Reveal “Mystery Sandwich” Plumbing System

Scitechdaily.com

Those who have visited Yellowstone National Park may have asked themselves, “Where does all the hot water come from?” A study published last week in *Nature*, co-authored by Virginia Tech’s W. Steven Holbrook and colleagues from the U.S. Geological Survey and Aarhus University in Denmark, provides stunning subsurface images that begin to answer that question.

<https://scitechdaily.com/stunning-subsurface-images-of-yellowstone-national-park-reveal-mystery-sandwich-plumbing-system/>



The SkyTEM instrument being flown over Old Faithful in Yellowstone National Park. Credit: Photo by Jeff Hungerford, Yellowstone National Park; supplied by Carol Finn of U.S. Geological Survey

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Volunteer Opportunities

Upcoming Howe's Cave tours in May!

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

PDH Credit Opportunities

NEW YORK STATE COUNCIL OF PROFESSIONAL GEOLOGISTS
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<https://www.nyscpg.com/event-4764697>

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NYSCPG's 2nd special edition beer batch is brewed by our friends from Lithology Brewing Company of Farmingdale, NY! The beer is available for purchase (\$18/4-pack), contact your local representative Mark Williams for details:

518-222-6616 or m.williams@ctmale.com

Purchases directly support the NYSCPG so please spread the word.
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Government Warning:
(1) According to the Surgeon General, women should not drink alcoholic beverages during pregnancy because of the risk of birth defects.
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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
April 20, 2022	Stephen Pekar Queens College ----- TBD - College Student Posters	The results from the expedition that explored the geologic history of the newly named 8 th continent called Zealandia ----- TBD - College Student Poster Session
May 18, 2022	Details TBA	Combined meeting with NEAIPG

OTHER EVENTS:

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



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A P R I L ' S G E O - C R Y P T O Q U O T E

CLUES: A = V and O = R

Each letter of the expression is substituted by another letter. Puzzle is a quotation related to Geology.

UWAWYWVTMWDI GSWKMK PQ JGDYDJWUTY
UDIKGIM; KRPFUM MD UXTIIG LWMXDRM
IDMWUG. - LWYY CROTIM

M A R C H ' S G E O - C R Y P T O C I P H E R S O L U T I O N

WE LEARN GEOLOGY THE MORNING AFTER THE EARTHQUAKE - RALPH WALDO EMERSON



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



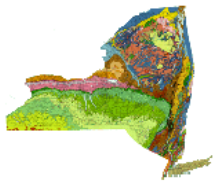
New York State Council of Professional Geologists (NYSCPG) strives to strengthen and advance the geologic sciences as a profession, promote the protection of public health and welfare and the environment through the professional practice of geologic sciences, and create high standards of ethical conduct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