



GSA NORTHEASTERN SECTION MEETING

18–20 March

DoubleTree by Hilton, Burlington, Vermont, USA

www.geosociety.org/ne-mtg

Photo by Stephen Wright.

Program



FINAL PROGRAM
FOR
ABSTRACTS WITH PROGRAMS

53rd Annual Meeting

NORTHEASTERN SECTION,
GEOLOGICAL SOCIETY OF AMERICA

18–20 March 2018

DoubleTree by Hilton
Hotel and Convention Center, Burlington, Vermont
with

Northeast Region, Association for Women Geoscientists

Eastern and New England Sections, National Association of Geoscience Teachers

Eastern Section, Society for Sedimentary Geology

Northeastern Section, Paleontological Society

Mountains to Lakes

Hosted By

University of Vermont
Middlebury College
Norwich University
SUNY Plattsburgh
Vermont Geological Survey



Committee for the 2018 Meeting

General Co-Chairs Andrea Lini, Charlotte Mehrtens
Technical Program Co-chairs Jon Kim, George Springston
Exhibits Andrea Lini
Short Courses and Workshops Laurence Becker, David Franzi
Student and Volunteer Help Nico Perdrial, Dave West
Sponsorships Craig Heindel, Charlotte Mehrtens

Northeastern Section GSA Officers for 2017–2018

Chair	Janet R. Stone
Vice Chair	Paul B. Tomascak
Secretary-Treasurer	David P. West
Members-at-Large	Mark Evans, Cynthia Venn
Past Chair	Gary S. Solar

Sponsors

We are grateful to the several entities and individuals who made substantial contributions to help underwrite the costs of the meeting. Their names will be prominently displayed at the meeting. Our sponsors as of press time are:

Beta Analytic
GeoInsight, Inc.
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Roger Thompson, Jr.
SEPM
Iapetus Wine
University of Pennsylvania College of Liberal and Professional Studies
Vermont Geological Survey
VHB
Waite-Heindel Environmental Management

NOTICE

By registering for this meeting, you have acknowledged that you have read and will comply with the GSA Code of Conduct for Events (full code of conduct listed on page 43). If you need to report unacceptable behavior, please contact:

GSA Executive Director, Vicki McConnell, vmcconnell@geosociety.org

GSA President-Elect, Robbie Griese, rrgriese@gmail.com

You may also stop by the GSA registration desk or the GSA Bookstore to have them directly contacted via phone.

General Information



This meeting is taking place at the DoubleTree by Hilton, Hotel, 870 Williston Rd South Burlington, VT 05403. The theme of the meeting is “Mountains to Lakes.” Burlington, Vermont is a dynamic college town located on the shore of Lake Champlain between the Adirondack Mountains to the west and the Green Mountains to the east. Home to wonderful restaurants, boutiques, and microbreweries, Burlington is centrally located to many Vermont attractions such as the Shelburne Museum, the ECHO science museum, the Ben and Jerry’s Factory and geological sites of interest such as the Champlain Thrust at Lone Rock Point and the Chazy Reef on Isle la Motte.

Travel Directions

The DoubleTree by Hilton (formerly the Sheraton Hotel and Conference Center) is on the northwest corner of the Interstate 89 Exit 14 in Burlington, Vermont.

From Canadian Border: Drive on Interstate 89 South, take Exit 14W. The hotel is on the right, just off the exit.

From New York: Follow Route 7 North to Interstate 189 to Interstate 89 North. Take Exit 14W and the hotel is on the right, just off the exit.

From New Hampshire or Massachusetts: Proceed on Interstate 89 North to Exit 14W. The hotel will be just off the exit on the right.

From Burlington and the Ferry Dock: Follow state Highway 2 for approximately 1.5 miles to Williston Road. The hotel will be on the left.

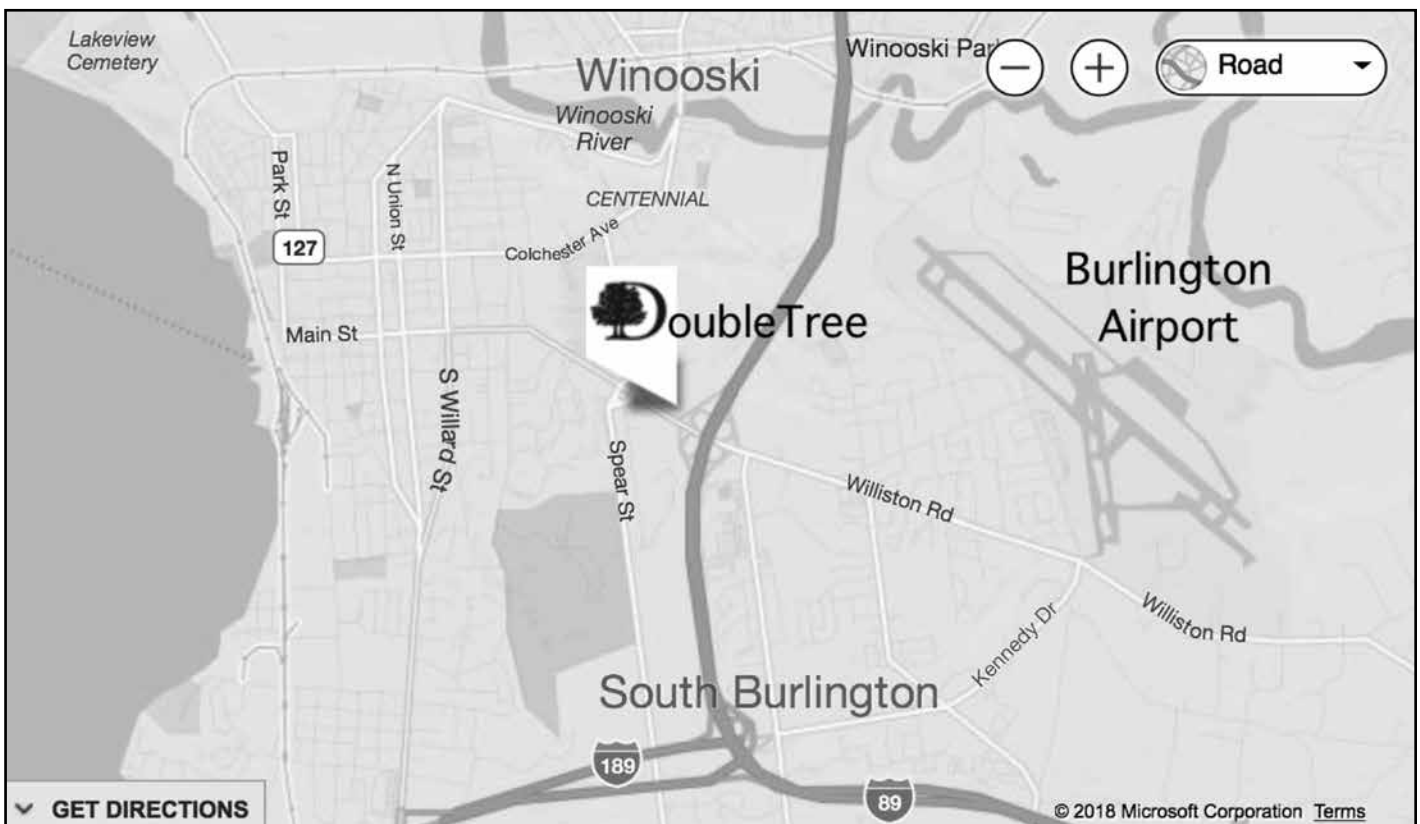
By plane:

From the Burlington International Airport: Turn left out of the airport and continue to the first traffic light. Turn right onto Route 2 and proceed approximately 1.2 miles. The hotel is located on the right, immediately past the interstate interchange.

Parking and Transportation

Free parking is available at the DoubleTree by Hilton Hotel, 870 Williston Road, Burlington, Vermont, 05403.

For Saturday workshops, the University of Vermont campus is a short walk from the hotel. Parking lots used primarily for “Employee” parking (Green and White lots with “E”), are also available as they are not enforced for parking permits on weekends.



Transportation to and from downtown Burlington is available through the hotel shuttle service, and public bus service (single fare \$1.25, 10-Ride Pass \$12).

Supplemental trolley shuttle service between the hotel and downtown will be available on a continuous basis on:

- Saturday, March 17 7:30–10:30 p.m.
- Sunday, March 18 6:30–9:30 p.m.
- Monday, March 19 6:30–9:30 p.m.

Registration

Registration is required for anyone attending technical sessions, short courses, or exhibits. On-site registration is in the Conference Center Lobby of the DoubleTree by Hilton on the following schedule:

- Saturday, 17 March 4–8:30 p.m.
- Sunday, 18 March 7 a.m.–4:30 p.m.
- Monday, 19 March 7 a.m.–4:30 p.m.
- Tuesday, 20 March 7–11 a.m.

Fees

On-site registration fees are presented in the table below.

	Full Meeting	Single Day
Professional Member.....	US\$240	US\$165
Professional Member..... (70 and older)	US\$145	US\$115
Professional Nonmember.....	US\$265	US\$200
Early Career Professional.....	US\$215	US\$180
Student Member.....	US\$95	US\$85
Student Nonmember.....	US\$105	US\$95
K–12 Professional.....	US\$100	US\$75
Guest or Spouse.....	US\$75	US\$65

Tickets for special events may be purchased on site if available.

Guest registration is intended for non-geoscientist spouses or friends and does not include attendance at workshops. A registered professional, a student, or a K–12 professional must accompany guest registrants. Students and K–12 teachers must show a current ID at check-in to obtain special rates.

All registrants, guests, volunteers, exhibitors, GSA staff, service providers, and others in attendance are expected to abide by the GSA Events Code of Conduct, which outlines specific expectations for participants at GSA-supported events.

Cancellations, Changes, and Refunds

All requests for additions, changes, and cancellations must have been made in writing to GSA Headquarters and received by 20 February 2018. There will be no refunds for cancellations received after this date.

Meeting App and Abstracts

A web-based app is available for this meeting. This app allows you to view and search the meeting program and create your own schedule of events to attend. You can also view

the full abstracts text from this app. Please download the app at <https://gsa.confex.com/gsa/2018NE/meetingapp.cgi>.

Continuing Education Credits (CEU)

The Northeastern Section Meeting offers an excellent opportunity to earn CEUs toward your continuing education requirements for your employer, K–12 school, or professional registration. Please check the meeting website after the meeting to download your CEU certificate.

Accommodations

We strongly encourage meeting participants to reserve rooms at the DoubleTree by Hilton. This is the official venue of the meeting, and all conference activities take place here.

Special Events & Activities

Saturday, March 17, 2018

Welcoming Reception: NEGSA, 2018, 6:30–8:30 p.m., Lake Champlain Exhibition Hall. Visit with friends and colleagues and view exhibits. One complimentary drink, then cash bar.

Sunday, March 18, 2018

Northeast Paleo Society Luncheon, noon–1 p.m., Diamond Ballroom I. Ticketed event. Join colleagues for lunch and conversation. Fee: \$30.

NAGT Luncheon, noon–1 pm, Diamond Ballroom II. Ticketed event. Join colleagues for lunch and conversation. Fee: \$25.

Eastern Section of the Society for Sedimentary Geology (ES-SEPM), 5:30–6:30 p.m., Emerald Ballroom I. Reception and Keynote Address: Title—Climatic extremes at the dawn of animal life. Kristin Bergmann, Department of Earth, Atmospheric and Planetary Sciences, MIT

Food and cash bar, Non-ticketed event. Summary: *The fossil record indicates that eukaryotes, unlike bacteria and archaea evolved fitfully and slowly. New analysis of the oxygen isotope record and clumped isotope record of carbonate and apatite fossils and rocks suggests temperature may have played a role in both the early evolution of complex life and oxygen availability.*

Northeast Tectonics (NETectonics) Reception, 6–7 p.m., Emerald Ballroom II. Join us for informal networking between students and faculty. We welcome anyone interested in tectonics research in the Appalachians and beyond. Cash bar non-ticketed event.

Map Blast! 7:30–9 p.m., Exhibition Hall. All meeting attendees are invited to post and informally discuss newly published, unpublished, and in-progress geologic maps/digital images of all sorts. No abstract submission is required. Cash bar available.

Monday, March 19, 2018

Association of Women Geoscientists (AWG) Networking Breakfast, 6:30–8 a.m., Diamond Ballroom I. This informal continental breakfast provides opportunities for students and professionals in academia, government, and

industry to meet and to learn more about AWG. Both AWG members and non- members are welcome. Fee: Professionals: US\$25; Students: US\$15. *The reduced cost of student breakfasts is through the generous support of the Association of Women Geoscientists Foundation.*

Northeastern Section Management Board Meeting, noon–1:30 p.m., Shelburne Room.

NEGSA Plenary Session, 5:15–6:15 p.m., Emerald Ballroom III. “The Drones Are Coming,” by Jarlath O’Neil-Dunne, Director, University of Vermont Spatial Analysis Laboratory. Non-ticketed event, cash bar available before and after the talk.

Reception “Legends of NE Geology.” 6:30–7:30 p.m., Emerald Ballroom II. Please join us to commemorate the lives and contributions of our Northeastern GSA members who have recently passed. We will provide a memorial board where you may share anecdotes or photographs of colleagues who touched your life in a meaningful way. Photographs and written contributions should fit on a single 8.5 x 11 inch page. Non-ticketed event, Food and cash bar.

Student Opportunities

Roy J. Shlemon Mentors Program in Applied Geoscience. Sun., 18 March, noon–1:30 p.m., Emerald Ballroom III. The Shlemon Mentors Program, *cosponsored by the GSA Foundation*, extends the mentoring reach of individual professionals from the fields of applied geology to students and early career professionals attending GSA Section meetings. Mentors and attendees discuss real-life issues, including professional opportunities and the challenges that await students after graduation. Space is limited; first-come, first-served basis.

John Mann Mentors Program in Applied Hydrogeology. Mon., 19 March, noon–1:30 p.m., Emerald Ballroom III. The Mann Mentors Program, *cosponsored by the GSA Foundation*, presents students and early career professionals with a declared interest in applied hydrogeology as a career the opportunity to interact with practicing hydrogeological professionals. Mentors and attendees can discuss career opportunities in the various sub-fields of hydrogeology and review the challenges that they present after graduation. Space is limited; first-come, first-served basis.

Geoscience Career Workshops

For more information about the Geoscience Career Workshops, please contact Jennifer Nocerino at jnocerino@geosociety.org.

Geoscience Career Workshop Part 1: Career Planning and Informational Interviewing. Sun., 18 March, 9–10 a.m., Shelburne Room. Your job hunting process should begin with career planning, not when you apply to jobs. This workshop will help you begin this process and will introduce you to informational interviewing. This section is highly recommended for freshman, sophomores and juniors. The earlier you start your career planning the better.

Geoscience Career Workshop Part 2: Geoscience Career Exploration. Sun., 18 March, 10–11 a.m., Shelburne Room. What do geologists in various sectors earn? What do they do? What are the pros and cons to working in academia, government, and industry? Workshop presenters and professionals in the field will address these issues.

Geoscience Career Workshop Part 3: Cover Letters, Resumes and CV’s. Mon., 19 March, 9–10 a.m., Shelburne Room. How do you prepare a cover letter? Does your resume need a good edit? Whether you are currently on the job market or not, learn how to prepare the best resume possible. You will review numerous resumes helping you to learn important resume do’s and don’ts.

Student Volunteers—Work opportunities that may earn free registration

Students accepted as meeting volunteers must check in at the Student Volunteer Desk located in the Exhibition Hall Foyer.

Exhibits

Exhibits are located in Lake Champlain Exhibition Hall on the Hotel’s lower level. Their hours are:

Set Up:	Sat., 17 March	noon–5 p.m.
Open:	Sat., 17 March	6:30–8:30 p.m.
Open:	18 March	9 a.m.–5 p.m.
Open:	19 March	9 a.m.–5 p.m.
Open:	20 March	9 a.m.–noon
Tear Down:	Tue 20 March	noon–4 p.m.

Exhibitors

(as of late-January)

2019 Northeastern Section Meeting—Portland, Maine
American Institute of Professional Geologists (AIPG)
American Museum of Natural History
AWG Student Chapter at Penn State
Department of Earth and Environmental Sciences Boston College
GeoInsight, Inc.
Gems and Crystals Unlimited
Geological Society of America Bookstore
Geological Society of America Foundation
Geostabilization International
Lake Champlain Basin Program
Olde Geologists Books
Penn LPS MSAG
Springer
Syracuse University Department of Earth Sciences
University of Pittsburgh at Johnstown Geology Club
University of Vermont Geology Department
Vermont Geological Survey
Waite Heindel Environmental Management

Cultural and Recreational Amenities

The DoubleTree by Hilton offers an indoor swimming pool and fitness center. The hotel is within walking distance to the

University of Vermont campus as well as shopping venues. For details, visit: http://doubletree.hilton.com/en/dt/groups/personalized/B/BTVBSDT-NEG-20180316/index.jhtml?WT.mc_id=POG#hotel.

Church Street Marketplace. Church Street is a must go to if you're in the Burlington area. This is the central street to visit, with something for everyone, in a variety of shops, restaurants, coffee shops and bars. (<http://www.churchstmarketplace.com>)

ECHO Leahy Center for Lake Champlain. The science center features exhibits and hands-on activities for adults and children alike focusing, but not limited to, the Lake Champlain basin ecosystem. Located on the Burlington waterfront, the Echo Center is open from 10 a.m.–5 p.m. daily. Adults: \$14.50, children and students: \$12.50. (<http://www.echovermont.org>)

Perkins Museum. Located on the first floor of Delehanty Hall on the University of Vermont campus, the museum displays include the Vermont State fossil, the Charlotte Whale, along with notable Vermont rocks and minerals. Museum hours are Monday–Friday, 8:30 a.m.–4:30 p.m. The Museum will be open 8:30 a.m.–4:30 p.m., on Saturday, March 17th. Admission is free. (<http://www.uvm.edu/perkins/>)

Fleming Museum. The Fleming Museum houses Vermont's most comprehensive collection of art and anthropologic artifacts. Special exhibits change regularly. The museum is located on the UVM central campus. Admission is \$5 for adults and \$3 for students with ID. The museum is closed on Mondays but is open Saturday and Sunday noon–4 p.m., Tuesday 10 a.m.–4 p.m., and Wednesday 10 a.m.–7 p.m. (<http://www.uvm.edu/~fleming/>)

Shelburne Museum. Located on Rt. 7 in Shelburne, Vermont, approximately 7 miles south of Burlington, the museum houses a world-renowned collection of American folk art, design, and Americana housed on a beautiful campus of over 30 buildings on 45 acres above Lake Champlain. Particularly noteworthy is the collection of over 1,000 wooden wildfowl decoys, paintings by Grandma Moses, and the steamboat Ticonderoga. During March the museum is open Wednesday-Sunday, 10am-5pm (not all buildings are open to the public during the off-season). Admission: adults \$10, under 17: \$5. Parking is free. (<https://shelburnemuseum.org>)

Ben & Jerry's. The Ben & Jerry's factory is Vermont's largest tourist attraction. A visit features a factory tour, the scoop shop and gift store. Located on Route 100, 1.2 miles north of I-89 Exit 10 in Waterbury, the factory is an easy half-hour drive from Burlington. (<https://www.benjerry.com/waterbury>)

The Meeting's Technical Program

The Meeting's Technical Program consists of Theme and Discipline Sessions, arranged in oral and poster sessions as described below. The Technical Program begins at 8 a.m. and ends at 5:30 p.m. on Sunday, 18 March and Monday, 19 March. On Tuesday, 20 March, it begins at 8 a.m. and ends at noon.

Oral Sessions

Most oral sessions have 20 minutes per presentation (17 minutes, presentation; 3 minutes, questions and discussion). Presentations must be prepared using PowerPoint or PDF formats, using a 16:9 screen ratio. One laptop with Windows 7 (no Macs available) with Power Point 2010, one LCD projector, and one screen is provided for all oral sessions. In addition, each room is equipped with a lectern microphone, wireless microphone, wireless computer mouse and PowerPoint advancer, and a speaker timer.

The Speaker Ready Room (Valcour Room)

All oral session presenters must visit the Speaker Ready Room before their scheduled presentation to ensure their PowerPoint or PDF file is properly configured and operating and load it on one of the laptops. Failure to do so may result in presentations being omitted from sessions. Speaker Ready Room hours are as follows:

Saturday, 17 March 4–8:30 p.m.
 Sunday, 18 March 7 a.m.–6 p.m.
 Monday, 19 March 7 a.m.–6 p.m.
 Tuesday, 20 March 7–10 a.m.

Each speaker must bring his or her PowerPoint or PDF presentation on a USB compatible flash drive (a.k.a. thumb drive or memory stick) or a CD-ROM disk to the Speaker Ready Room for checking and uploading to their session's folder according to the deadlines below:

For Presentation	Upload Not Later Than
Sunday, 18 March, AM	8:30 p.m., Saturday, 17 March
Sunday, 18 March, PM	10 a.m., Sunday, 18 March
Monday, 19 March, AM	5 p.m., Sunday, 18 March
Monday, 19 March, PM	10 a.m., Monday, 19 March
Tuesday, 20 March, AM	5 p.m., Monday, 19 March

Session Chair Orientations

Each Session Chair is requested to attend the 15-minute "Session Chairs Orientation" held in the Carleton Boardroom the morning of the day on which your session is to take place. This meeting will include a review of session time management, AV procedures, and other information affecting the conduct of the day's sessions.

Session chairs are asked to strictly adhere to the technical program schedule and to limit speakers to their allotted time. If a speaker does not appear for an assigned time slot, session chairs should call for a break or discussion period and begin the following presentation at its scheduled time.

A student volunteer is assigned to each oral session. Session chairs are asked to meet with the assigned student volunteer before the start of the session. The volunteers are there to help the sessions run smoothly and to contact the AV Coordinator in the event of technical problems.

Poster Sessions

All Poster Sessions are in the Lake Champlain Exhibition Hall, on the hotel's lower level. Please check the program for specific times and topics. Poster presenters have one 4' by 8' horizontal (landscape) poster display surface. Numbers on these display surfaces correspond to the poster booth numbers listed in the Program. The poster boards accept push pins, and some pins are furnished for each poster.

Technical Program Sessions

Plenary Session. Monday, 19 March, 5:15–6:15 p.m., Emerald Ballroom III. *"The Drones Are Coming."* Jarlath O'Neil-Dunne, Director, University of Vermont Spatial Analysis Laboratory.

Theme Sessions

T1. **Practical Applications of Engineering Geology.** Krystle Pelham, Engineering Geologist, New Hampshire Dept. of Transportation, Krystle.Pelham@dot.nh.gov.

T2. **Applications of Geoscience to Government and Community Issues.** Marjorie Gale, State Geologist, Vermont Geological Survey, Marjorie.gale@vermont.gov; Gale Blackmer, State Geologist, Pennsylvania Geological Survey, gblackmer@pa.gov; Frederick Chormann, State Geologist, New Hampshire Geological Survey, Frederick.chormann@des.nh.gov.

T3. **Stories of Resilience: River Restoration and Recovery in the Northeast.** Kristen Underwood, University of Vermont, southmountain@gmavt.net; John Field, Field Geology Services, jfield@field-geology.com.

T5. **Critical Zone Processes, Function and Resiliency: Challenges and Opportunities.** Julia Perdrial, University of Vermont, jperdrial@uvm.edu; Tim White, Penn State University, tsw113@psu.edu.

T6. **Emerging Contaminants in Fractured Bedrock Aquifers in the Northeast.** Jon Kim, Vermont Geological Survey, jon.kim@vermont.gov; Peter Ryan, Middlebury College, pryan@middlebury.edu; Ed Romanowicz, SUNY at Plattsburgh, romanoea@plattsburgh.edu; Tim Schroeder, Bennington College, tschroeder@bennington.edu.

T7. **Biogeochemical Cycling in Natural and Human-Altered Landscapes.** Jamie Shanley, U.S. Geological Survey, Montpelier, VT, jshanley@usgs.gov; Doug Burns, U.S. Geological Survey, Troy, NY, daburns@usgs.gov.

T8. **Private Wells – Current Challenges and Opportunities.** Sille Larsen, Vermont Department of Health - Sille.Larsen@vermont.gov; Liz Royer, Vermont Rural Water Association, lroyer@vtruralwater.org; Paul Susca, New Hampshire Department of Environmental Services, paul.susca@des.nh.gov; Patti Casey, Vermont Agency of Agriculture, Patti.Casey@vermont.gov.

T11. **Current Research in Coastal and Marine Processes.** Mark Borrelli, University of Massachusetts/Boston, mark.borrelli@umb.edu; Bryan A. Oakley, Eastern Connecticut State University, oakleyb@easternct.edu.

T12. **Paleolimnological Records of Landscape Change.** Laurie D. Grigg, Norwich University, lgrigg@norwich.edu; Timothy L. Cook, Worcester State University, tcook3@worchester.edu.

T13. **Deglaciation and Late-Glacial Climate Research, Northeastern U.S. and Eastern Canada.** Woodrow B. Thompson, Maine Geological Survey (Retired), iceagemaine@myfairpoint.net; P. Thompson Davis, Dept. Natural & Applied Sciences, Bentley University, pdavis@bentley.edu; Brian K. Fowler, New Hampshire Geologic Resources Advisory Committee, b2fmr@metrocast.net.

T14. **Glacial Lakes: New Understandings of their Extent, History, and Internal Dynamics.** John Rayburn, SUNY New Paltz, rayburnj@newpaltz.edu; Stephen Wright, University of Vermont, swright@uvm.edu.

T18. **Geolore: Local Geology Field Trips Merge Geology and History to Motivate Students, Teachers, and Community Members to Explore Natural Areas.** Tarin Weiss, Westfield State University, tweiss@westfield.ma.edu; Lori Weeden, University of Massachusetts Lowell, Lori_Weeden@uml.edu; Melissa Lombard, Fitchburg State University, melissalombard@alum.rpi.edu.

T19. **From Plane Tables to Drones: A Topography of Geologic Mapping in a Digital Landscape.** John Van Hoesen, Green Mountain College, vanhoesenj@greenmtn.edu; Rick Chormann, NH Geological Survey, Frederick.Chormann@des.nh.gov.

T20. **The Devonian Terrestrial Realm: Current Perspectives and New Research.** Charles Ver Straeten, New York State Museum, Charles.Verstraeten@nysed.gov; William Stein, Binghamton University, stein@binghamton.edu; Rose-Anna Behr, Pennsylvania Topographic and Geologic Survey, rosbehr@pa.gov.

T21. **Stratigraphic Studies along the Western Margin of the Appalachian Orogens.** Paul Washington, Marietta College, pw005@marietta.edu; James Ebert, SUNY at Oneonta, james.ebert@oneonta.edu.

T22. **The Adirondack Mountains and The Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits: A Session Honoring the Work of Bruce Selleck.** Tim Grover, Castleton State, tim.grover@castleton.edu; Greg Walsh, USGS, gwalsh@usgs.gov; Mike Williams, UMASS, mlw@umass.edu; Sean Regan, USGS, sregan@usgs.gov; Marian Lupulescu, New York State Museum, marian.lupulescu@nysed.gov; and Peter Valley, SUNY at Potsdam, valleypm@potsdam.edu.

T23. **Application of Strain, Fabric, and Textural Analyses to Ductile Fabrics in Investigations of Orogenic Processes.** Jeffrey R. Webber, Stockton University, jeffrey.webber@stockton.edu; Keith A. Klepeis, University of Vermont, keith.klepeis@uvm.edu; Michael L. Williams, University of Massachusetts, Amherst, mlw@geo.umass.edu.

T24. **Orogenic Sutures–Recognition, Characterization and Tectonic Implications.** Alain Tremblay, University of Quebec at Montreal, tremblaya@uqam.gc.ca; Laura Webb, University of Vermont, lewebb@uvm.edu.

T25. Post-Rift Tectonism and Landscape Evolution in Eastern North America. Will Amidon, Middlebury College, wamidon@middlebury.edu; Dave West, Middlebury College, dwest@middlebury.edu; Ryan McKeon, Dartmouth College, ryan.e.mckeeon@dartmouth.edu.

T26. Evolution of the Taconic Foreland: Insights into Active Margins and Global Climate Change. Charles E. Mitchell, SUNY at Buffalo, cem@buffalo.edu; Robert D. Jacobi, SUNY at Buffalo, 1rdjacobi@gmail.com; Francis A. Macdonald, Harvard University, fmacdon@fas.harvard.edu; and Jeff Pietras, SUNY at Binghamton, jpietras@binghamton.edu.

T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones: A Session Honoring the Work of Robert D. Jacobi. Keith Klepeis, University of Vermont, keith.klepeis@uvm.edu; Jon Kim, Vermont Geological Survey, Jon.Kim@vermont.gov, Jean Crespi, University of Connecticut, jean.crespi@uconn.edu.

T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England: A Session Honoring the Work of Jo Laird and Peter J. Thompson. Ian W. Honsberger, Geological Survey of Canada, Ottawa, ian.honsberger@canada.ca; Wallace A. Bothner, Department of Earth Sciences, University of New Hampshire, Durham, NH USA, Wally.Bothner@unh.edu, Peter Robinson, Geological Survey of Norway, N-7491, Trondheim, Norway, Peter.Robinson@ngu.no.

T30. Petrologic Insights on Modern and Ancient Plate Margins: The Volcanic, Plutonic, and Metamorphic Records. Emily Peterman, Bowdoin College, epeterma@bowdoin.edu; Howell Bosbyshell, West Chester University, hbosbyshell@wcupa.edu, Victor Guevara, Skidmore College, vguevara@skidmore.edu; Sara Mana, Salem State University,

smana@salemstate.edu; Alicia M. Cruz-Urbe, Alicia M. Cruz-Urbe, University of Maine; alicia.cruzuribe@gmail.com.

T32. Combining Geology and Geophysics in the Appalachians. Maureen D. Long, Yale University, maureen.long@yale.edu and Yvette D. Kuiper, Colorado School of Mines, ykuiper@mines.edu.

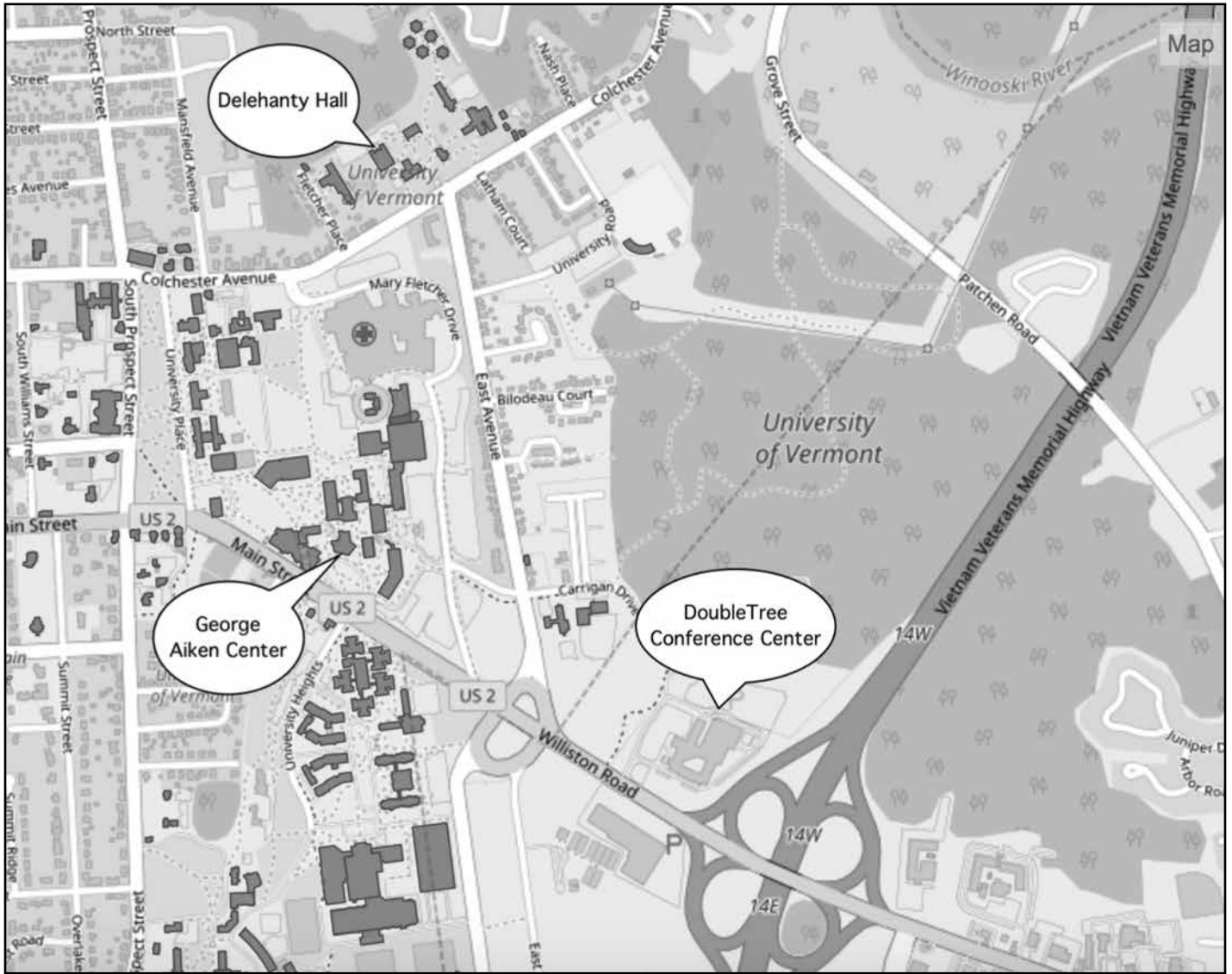
T33. Title: Lake Research and Monitoring Networks in the Northeast. Kiyoko Yokota, Suny Oneonta, yokota@Oneonta.edu; David C. Richardson, Suny New Paltz, richardsond@newpaltz.edu; Lisa Borre, borrel@caryinstitute.org. Patricia Manley, Middlebury College, manley@middlebury.edu; Andrea Lini, University of Vermont, alini@uvm.edu.

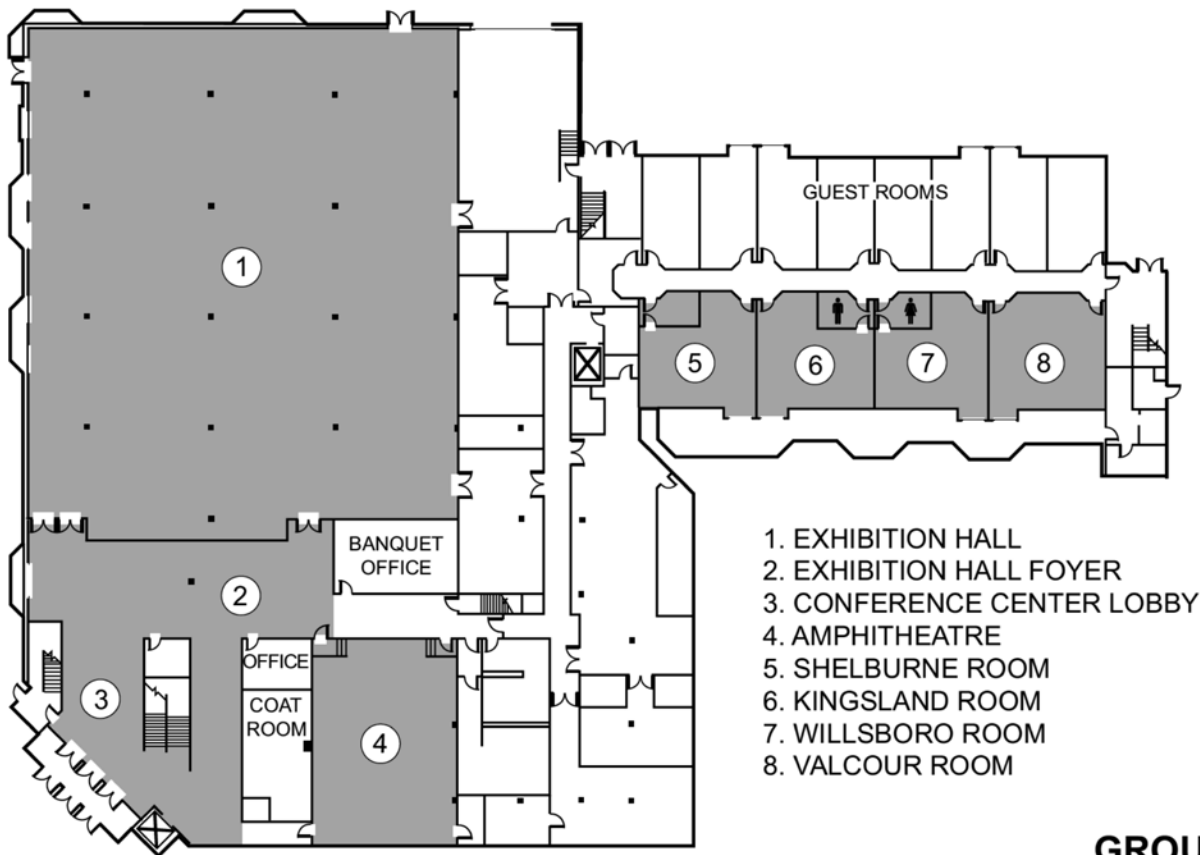
Workshops/Short Courses

1. Core Tools: Techniques and Software for Collection and Analysis of Core Samples. Sat., 17 March, 9 a.m.–3 p.m., 331 Delehanty Hall, University of Vermont. Anders Noren, Continental Scientific Drilling Coordination Office/LacCore Facility, University of Minnesota.

2. Science Practice Integration for your Classroom. Sat., 17 March, 10 a.m.–3 p.m., 219 Delehanty Hall, University of Vermont. Melissa Lombard, Assistant Professor, Earth and Geographic Sciences Dept., Fitchburg State University, melissalombard@alum.rpi.edu; Lara Gengarelly, Extension Associate Professor/Specialist, Science Education and Outreach, Cooperative Extension, University of New Hampshire, lara.gengarelly@unh.edu.

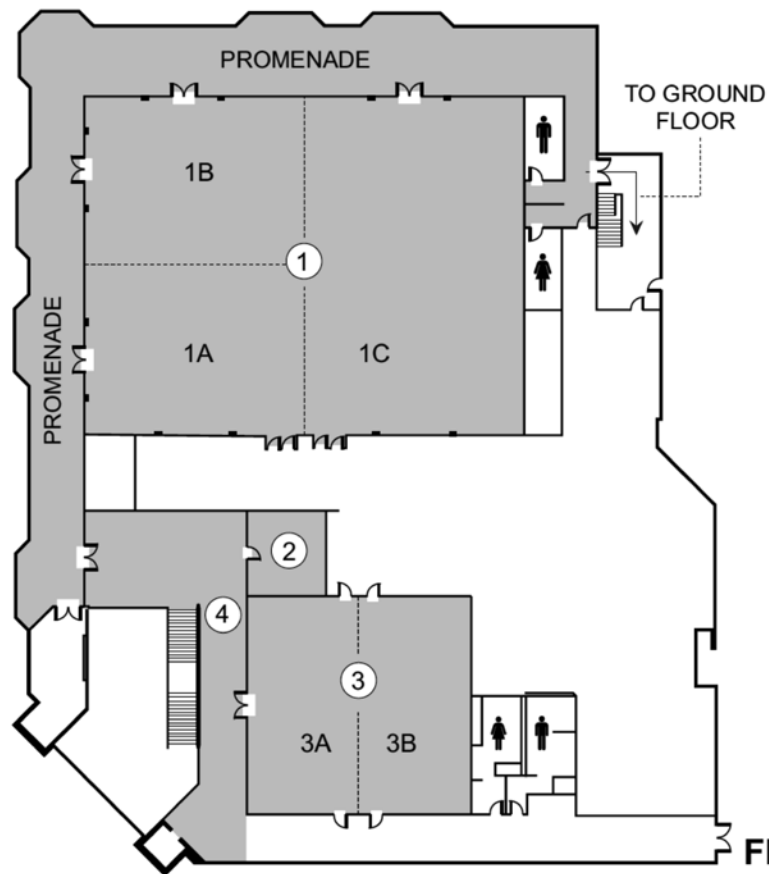
3. Turning Drone Data into Information. Sat., 17 March, 12:30-4:30 p.m., Spatial Analysis Laboratory, 205 George Aiken Center, University of Vermont. Jarlath O'Neil-Dunne, Director, University of Vermont Spatial Analysis Laboratory, Jarlath.ONeil-Dunne@uvm.edu.





GROUND FLOOR

- 1. EMERALD BALLROOM
 - 1A. EMERALD BALLROOM I
 - 1B. EMERALD BALLROOM II
 - 1C. EMERALD BALLROOM III
- 2. CARLETON BOARDROOM
- 3. DIAMOND BALLROOM
 - 3A. DIAMOND BALLROOM I
 - 3B. DIAMOND BALLROOM II
- 4. DIAMOND BALLROOM FOYER



FIRST FLOOR

Schedule of Events

EVENT	TIME	LOCATION
SATURDAY, 17 MARCH		
WS1. Core Tools: Techniques and Software for Collection and Analysis of Core Samples (Workshop)	9 a.m.–3 p.m.	331 Delehanty Hall, University of Vermont
WS2. Science Practice Integration for your Classroom (Workshop)	10 a.m.–3 p.m.	219 Delehanty Hall, University of Vermont
WS3. Turning Drone Data into Information (Workshop)	12:30–4:30 p.m.	Spatial Analysis Laboratory, 205 George Aiken Center, University of Vermont
Exhibits Set Up	noon–5 p.m.	Lake Champlain Exhibition Hall
Registration Open	4–8:30 p.m.	Conference Center Lobby
Speaker Ready Room	4–8:30 p.m.	Valcour Room
Exhibits Open	6:30–8:30 p.m.	Lake Champlain Exhibition Hall
Welcoming Reception	6:30–8:30 p.m.	Lake Champlain Exhibition Hall
SUNDAY, 18 MARCH		
Registration Open	7 a.m.–4:30 p.m.	Conference Center Lobby
Speaker Ready Room	7 a.m.–6 p.m.	Valcour Room
Session Chair Orientation	7:15–7:30 a.m.	Diamond Ballroom II
Exhibits Open	9 a.m.–5 p.m.	Lake Champlain Exhibition Hall
Geoscience Career Workshop Part 1: Career Planning and Informational Interviewing (Student Workshop)	9–10 a.m.	Shelburne Room
Geoscience Career Workshop Part 2: Geoscience Career Exploration (Student Workshop)	10–11 a.m.	Shelburne Room
Morning Oral Technical Sessions		
T1. Practical Applications of Engineering Geology	8 a.m.–noon	Emerald Ballroom II
T5. Critical Zone Processes, Function, and Resiliency: Challenges and Opportunities	8 a.m.–noon	Diamond Ballroom I
T12. Paleolimnological Records of Landscape Change	8 a.m.–noon	Emerald Ballroom I
T26. Evolution of the Taconic Foreland: Insights into Active Margins and Global Climate Change	8 a.m.–noon	Diamond Ballroom II
T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones I: A Session Honoring The Work of Robert D. Jacobi	8 a.m.–noon	Emerald Ballroom III
T30. Petrologic Insights on Modern and Ancient Plate Margins I: The Volcanic, Plutonic, and Metamorphic Records	8 a.m.–noon	University amphitheater

EVENT	TIME	LOCATION
Morning Poster Sessions: Authors will be present from 9 to 11 AM		
D1. Geochemistry (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
D2. Geophysics (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
D3. Paleontology (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
D4. Structural Geology and Tectonics (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T23. Application of Strain, Fabric, and Textural Analyses to Ductile Fabrics in Investigations of Orogenic Processes (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
Roy J. Shlemon Mentors Program in Applied Geoscience	noon–1:30 p.m.	Emerald Ballroom III
Eastern Section of the Society for Sedimentary Geology (ES-SEPM) Reception and Keynote Address	5:30–6:30 p.m.	Emerald Ballroom I
Northeast Tectonics (NETectonics) Reception	6–7 p.m.	Emerald Ballroom II
Map Blast!	7:30–9 p.m.	Lake Champlain Exhibition Hall
NAGT Luncheon (Ticketed Event)	noon–1 p.m.	Diamond Ballroom II
Northeast Paleo Society Luncheon (Ticketed Event)	noon–1 p.m.	Diamond Ballroom I
Afternoon Oral Technical Sessions		
T2. Applications of Geoscience to Government and Community Issues	1:30–5:30 p.m.	Emerald Ballroom II
T21. Stratigraphic Studies along the Western Margin of the Appalachian Orogens	1:30–5:30 p.m.	Diamond Ballroom I
T25. Post-Rift Tectonism and Landscape Evolution in Eastern North America	1:30–5:30 p.m.	Diamond Ballroom II
T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones II: A Session Honoring The Work of Robert D. Jacobi	1:30–5:30 p.m.	Emerald Ballroom III
T30. Petrologic Insights on Modern and Ancient Plate Margins II: The Volcanic, Plutonic, and Metamorphic Records	1:30–5:30 p.m.	University Amphitheater
T33. Lake Research and Monitoring Networks in the Northeast	1:30–5:30 p.m.	Emerald Ballroom I
Afternoon Poster Sessions: Authors will be present from 2 to 4 PM		
D5. Economic Geology and Energy Geology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
D6. Hydrogeology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
D7. Quaternary Geology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T1. Practical Applications of Engineering Geology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T5. Critical Zone Processes, Function, and Resiliency: Challenges and Opportunities (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T12. Paleolimnological Records of Landscape Change (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
MONDAY, 19 MARCH		
Association of Women Geoscientists (AWG) Networking Breakfast (Ticketed Event)	6:30–8:00 a.m.	Diamond Ballroom I

EVENT	TIME	LOCATION
Speaker Ready Room	7–6 p.m.	Valcour Room
Registration Open	7 a.m.–4:30 p.m.	Conference Center Lobby
Session Chair Orientation	7:15-7:30 a.m.	Diamond Ballroom II
Exhibits Open	9 a.m.–5 p.m.	Lake Champlain Exhibition Hall
Geoscience Career Workshop Part 3: Cover Letters, Resumes and CV's (Student Workshop)	9–10 a.m.	Shelburne Room

Morning Oral Technical Sessions

T6. Emerging Contaminants in Fractured Bedrock Aquifers in the Northeast I	8 a.m.–noon	Emerald Ballroom I
T8. Private Wells I: Current Challenges and Opportunities	8 a.m.–noon	University a.m.phitheater
T13. Deglaciation and Late-Glacial Climate Research, Northeastern U.S. and Eastern Canada	8 a.m.–noon	Diamond Ballroom II
T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits I: A Session Honoring the Work of Bruce Selleck	8 a.m.–noon	Emerald Ballroom II
T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England I: A Session Honoring the Work of Jo Laird and Peter J. Thompson	8 a.m.–noon	Emerald Ballroom III
T20. SEPM Symposium: The Devonian Terrestrial Realm I: Current Perspectives and New Research	8:20 a.m.-noon	Diamond Ballroom I

Morning Poster Sessions: Authors will be present from 9 to 11 AM

D8. Environmental Geoscience (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T2. Applications of Geoscience to Government and Community Issues (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones: A Session Honoring The Work of Robert D. Jacobi (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T30. Petrologic Insights on Modern and Ancient Plate Margins: The Volcanic, Plutonic, and Metamorphic Records (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T33. Lake Research and Monitoring Networks in the Northeast (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall

John Mann Mentors Program in Applied Hydrogeology	noon–1:30 p.m.	Emerald Ballroom III
Northeastern Section Management Board Meeting	noon–1:30 p.m.	Shelburne Room

Afternoon Oral Technical Sessions

T6. Emerging Contaminants in Fractured Bedrock Aquifers in the Northeast II	1:30–2:50 p.m.	Emerald Ballroom I
T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits II: A Session Honoring the Work of Bruce Selleck	1:30–3:30 p.m.	Emerald Ballroom II
T8. Private Wells II: Current Challenges and Opportunities	1:30–5:30 p.m.	University a.m.phitheater
T14. Glacial Lakes: New Understandings of Their Extent, History, and Internal Dynamics	1:30–5:30 p.m.	Diamond Ballroom II
T20. SEPM Symposium: The Devonian Terrestrial Realm II: Current Perspectives and New Research	1:30–5:30 p.m.	Diamond Ballroom I

EVENT	TIME	LOCATION
T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England II: A Session Honoring the Work of Jo Laird and Peter J. Thompson	1:50-5:30 p.m.	Emerald Ballroom III
T19. From Plane Tables to Drones: A Topography of Geologic Mapping in a Digital Landscape	3:05-5:30 p.m.	Emerald Ballroom I
Afternoon Poster Sessions: Authors will be present from 2 to 4 PM		
D10. Stratigraphy, Sedimentology, and Sedimentary Petrology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
D9. Geoscience Education and History of Geology (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T7. Biogeochemical Cycling in Natural and Human-Altered Landscapes (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T11. Current Research in Coastal and Marine Processes (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
T13. Deglaciation and Late-Glacial Climate Research, Northeastern U.S. and Eastern Canada (Posters)	1:30–5:30 p.m.	Lake Champlain Exhibition Hall
NEGSA Plenary Session “The Drones Are Coming”	5:15–6:15 p.m.	Emerald Ballroom III
Reception “Legends of NE Geology”	6:30–7:30 p.m.	Emerald Ballroom II

TUESDAY, 20 MARCH

Speaker Ready Room	7–10 a.m.	Valcour Room
Registration Open	7–11 a.m.	Conference Center Lobby
Session Chair Orientation	7:15–7:30 a.m.	Emerald Ballroom II
Exhibits Open	9 a.m.–noon	Lake Champlain Exhibition Hall

Morning Oral Technical Sessions

T3. Stories of Resilience: River Restoration and Recovery in the Northeast	8 a.m.–noon	University amphitheater
T7. Biogeochemical Cycling in Natural and Human-Altered Landscapes	8 a.m.–noon	Emerald Ballroom III
T11. Current Research in Coastal and Marine Processes	8 a.m.–noon	Emerald Ballroom I
T18. Geolore: Local Geology Field Trips Merge Geology and History to Motivate Students, Teachers, and Community Members to Explore Natural Areas	8 a.m.–noon	Emerald Ballroom II
T24. Orogenic Sutures—Recognition, Characterization, and Tectonic Implications	8 a.m.–noon	Diamond Ballroom II
T32. Combining Geology and Geophysics in the Appalachians	8 a.m.–noon	Diamond Ballroom I

Morning Poster Sessions: Authors will be present from 9 to 11 AM

D11. Igneous and Metamorphic Petrology (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
D12. Paleoclimatology/Paleoceanography (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T3. Stories of Resilience: River Restoration and Recovery in the Northeast (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T19. From Plane Tables to Drones: A Topography of Geologic Mapping in a Digital Landscape (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall

EVENT	TIME	LOCATION
T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits: A Session Honoring the Work of Bruce Selleck (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England: A Session Honoring the Work of Jo Laird and Peter J. Thompson (Posters)	8 a.m.–noon	Lake Champlain Exhibition Hall
Exhibits Tear Down	noon-4 p.m.	Lake Champlain Exhibition Hall

Technical Sessions

Meeting policy prohibits the use of cameras or sound-recording equipment at technical sessions and poster sessions.



A no-smoking policy has been established by the Program Committee and will be followed in all meeting rooms for technical sessions.

NOTICE

In the interest of public information, the Geological Society of America provides a forum for the presentation of diverse opinions and positions. The opinions (views) expressed by speakers and exhibitors at these sessions are their own and do not necessarily represent the views or policies of the Geological Society of America.



NOTE INDEX SYSTEM

Numbers (3-4, 15-4) indicate session and order of presentation within that session.

*denotes speaker

SUNDAY, 18 MARCH 2018

MORNING ORAL TECHNICAL SESSIONS

SESSION NO. 1

T1. Practical Applications of Engineering Geology

8:00 AM, DoubleTree by Hilton Emerald II Ballroom

Krystle Pelham, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 1-1 8:10 AM Smerekanicz, Jay R.*: **APPLIED ENGINEERING GEOLOGY CASE HISTORIES FROM VERMONT: FIELD GEOLOGY'S VITAL ROLE IN SOLVING GEOTECHNICAL PROBLEMS**
- 1-2 8:30 AM Gauthier, David*; Anderson, Scott; Hutchinson, Jean: **EMERGING TOOLS FOR HIGH-RESOLUTION REMOTE 3D MAPPING OF ENGINEERING GEOLOGY AND TERRAIN FEATURES ON STEEP ROCK SLOPES**
- 1-3 8:50 AM Friede, Erik*; Blaisdell, Andrew; Snow, Christopher: **LIDAR AND SPLIT-FX AS TOOLS TO ENHANCE KINEMATIC STABILITY AND ROCKFALL HAZARD EVALUATIONS**
- 1-4 9:10 AM Olson, Neil F.*; Disenhof, Corinne R.; Pelham, Krystle; Engel, Taylor; O'Neil-Dunne, Jarlath: **USE OF 3D POINT CLOUD DATA FOR ROCK SLOPE ASSESSMENT**
- 1-5 9:30 AM Thomas, Ethan*: **VERMONT'S ROCKFALL HAZARD RATING SYSTEM**
- 1-6 9:50 AM Fiore, Alex R.*; Ashland, Francis X.; Reilly, Pamela A.: **INSIGHTS ON SHALLOW LANDSLIDE INITIATION BASED ON HYDROLOGIC MONITORING IN THE ATLANTIC HIGHLANDS, NEW JERSEY**
- 10:10 AM **BREAK**
- 1-7 10:25 AM Hamshaw, Scott D.*: **UNRAVELING SEDIMENT DYNAMICS WITHIN WATERSHEDS FROM PATTERNS IN SUSPENDED SEDIMENT-DISCHARGE RELATIONSHIPS**
- 1-8 10:45 AM Mountjoy, Bryant D.*; Donovan, Joseph J.: **HYDROGEOLOGY OF AN UNDERGROUND COAL MINE: EVIDENCE OF POST-FLOODING PILLAR FAILURE**

- 1-9 11:05 AM Rygel, Adrienne*; Hetman, Madisen; Moore, Dalton; Jennings, Sarah: **GRASSE RIVER WATERSHED EROSION POTENTIAL, SEDIMENT LOADING, AND NUTRIENT LOADING ANALYSIS, ST. LAWRENCE COUNTY, NEW YORK**
- 1-10 11:25 AM Weiss, Hannah*; Bierman, Paul R.; Dubief, Yves; Hamshaw, Scott D.: **FEASIBILITY OF OVER-SUMMER SNOW STORAGE AT THE CRAFTSBURY OUTDOORS CENTER IN CRAFTSBURY, VT**
- 11:45 AM **CONCLUDING REMARKS**

SESSION NO. 2

T5. Critical Zone Processes, Function, and Resiliency: Challenges and Opportunities

8:00 AM, DoubleTree by Hilton Diamond I Ballroom

Julia Perdril and Timothy S. White, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 2-1 8:05 AM White, Timothy S.*; Dere, Ashlee Laura Denton; Sharkey, Sarah: **RATES OF SEDIMENT FLUX FROM THREE THROW IN THE SHALE HILLS CRITICAL ZONE OBSERVATORY AND ASSOCIATED SATELLITE SITES IN THE APPALACHIAN MOUNTAINS**
- 2-2 8:25 AM Hasiotis, Stephen T.*: **SOIL ORGANISMS AS ECOSYSTEM ENGINEERS OF THE CRITICAL ZONE—THE FORGOTTEN MIDDLE MAN**
- 2-3 8:45 AM Ross, Donald S.*; Bourgault, Rebecca; Bailey, Scott; McGuire, Kevin: **CRITICAL ZONE ARCHITECTURE AND THE REDISTRIBUTION OF SOIL METALS AND ORGANIC CARBON IN A NEW HAMPSHIRE HEADWATER CATCHMENT**
- 2-4 9:05 AM Richardson, Justin B.*: **PHASE PARTITIONING AND MOBILITY OF MANGANESE ACROSS SIX CRITICAL ZONE OBSERVATORIES: COMPARING PLANT AND BEDROCK CONTROLS**
- 2-5 9:25 AM Stubbins, Aron*; Wagner, Sasha; Van Stan, John T.: **TREE-DOM: DOM FROM THE CROWNING HEADWATERS OF THE AQUATIC CARBON CYCLE**

SUNDAY, 18 MARCH

- 2-6 9:45 AM Wagner, Sasha*; Hoyle-Fair, Jennifer; Matt, Serena; Raymond, Peter; Saiers, James E.; Dittmar, Thorsten; Stubbins, Aron: **MOLECULAR HYSTERESIS: HYDROLOGICALLY-DRIVEN CHANGES IN THE COMPOSITION OF RIVERINE DISSOLVED ORGANIC MATTER**
- 10:05 AM **BREAK**
- 2-7 10:20 AM Ryan, Kevin*; Shanley, James B.; Stubbins, Aron; Perdril, Julia; Raymond, Peter; Hosen, Jacob: **IN-SITU OPTICAL SENSORS REVEAL HOT MOMENTS OF DISSOLVED ORGANIC MATTER EXPORT IN SLEEPERS RIVER RESEARCH WATERSHED, VERMONT**
- 2-8 10:40 AM Hoyt, Virginia Ann*; McDowell, William H.: **CONTROL OF PHOSPHORUS DYNAMICS BETWEEN SOIL, GROUNDWATER, AND STREAM COMPARTMENTS OF A MONTANE TROPICAL WATERSHED**
- 2-9 11:00 AM Mana, Sara*; Ruiz, Paulo; Gutiérrez, Amalia; Garro, José F.; Alarcón, Gerardo; Soto, Gerardo J.: **UNDERSTANDING THE PRE-HISPANIC HUMAN-VOLCANO INTERACTIONS IN A TROPICAL CRITICAL ZONE DURING THE HOLOCENE**
- 2-10 11:20 AM Bierman, Paul R.*; Denn, Alison R.: **HICKORY RUN BOULDER FIELD - AN ANCIENT, ROCKY CRITICAL ZONE**

SESSION NO. 3

T12. Paleolimnological Records of Landscape Change

8:00 AM, DoubleTree by Hilton Emerald I Ballroom

Laurie D. Grigg and Timothy L. Cook, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 3-1 8:05 AM Tift, William*; Doner, Lisa A.: **SCALES OF INFLUENCE: EVENTS THAT CREATE LAKE SEDIMENT RECORDS**
- 3-2 8:25 AM Arcone, Steven*; Campbell, Seth W.; Nesbitt, Ian: **LACUSTRINE SEDIMENTATION IN NEW ENGLAND IMAGED WITH GROUND-PENETRATING RADAR: LITTLE EVIDENCE FOR CATASTROPHIC HOLOCENE LANDSCAPE ALTERATION**
- 3-3 8:45 AM Godfrey, Adam; Spooner, Ian*; Mallory, Mark; Dunnington, Dewey W.; White, Chris E.: **IMPACT OF HISTORICAL LOGGING AND HYDROELECTRIC DEVELOPMENT ON AN UPLAND RIVER SYSTEM, NOVA SCOTIA, CANADA: A PALEOLIMNOLOGICAL PERSPECTIVE**
- 3-4 9:05 AM Stager, Jay Curt*; Wiltse, Brendan; Cumming, Brian; Holsen, Thomas; Lodge, Amanda; Stetler, Jonathan; Alton, Ken: **SEDIMENT RECORDS OF A NOVEL ECOLOGICAL STATE FOLLOWING ACIDIFICATION AT BEAR POND, ADIRONDACK MOUNTAINS, NY**
- 3-5 9:25 AM Dunnington, Dewey W.*; Spooner, Ian S.; White, Christopher E.; Gagnon, Graham A.: **EVALUATING THE UTILITY OF FIELD-PORTABLE X-RAY FLUORESCENCE (PXRF) FOR THE RAPID MEASUREMENT OF LANDSCAPE CHANGE PROXIES**
- 3-6 9:45 AM McCarthy, Francine M.G.*; Garner, Caitlin S.; Kornecki, Krystyna; Schuler, Matthew S.; Pilkington, Paul Michael; Krueger, Andrea M.; Katz, Miriam E.; Relyea, Rick; Schaller, Morgan F.; Stager, Jay Curt; Boylen, Chuck A.; Eichler, Lawrence; Nierzwicki-Bauer, Sandra: **TEASING OUT ANTHROPOGENIC FROM NATURAL PERTURBATION ON THE LAKE GEORGE ECOSYSTEM – EVIDENCE FROM NON-POLLEN PALYNOMORPHS IN “POLLEN SLIDES”**
- 10:05 AM **BREAK**
- 3-7 10:20 AM Kornecki, Krystyna*; Katz, Miriam E.; Rowell, H. Chandler; Curtin, Tara M.: **IMPACTS OF MERCURY ON TESTATE AMOEBAE (ARCELLINIDA) OF CAYUGA LAKE, NY**
- 3-8 10:40 AM Miller, Daniel R.*; Habicht, Helen; Keisling, Benjamin Andrew; Castañeda, Isla S.; Bradley, Raymond S.: **A HIGHLY-RESOLVED, 900-YEAR NEW ENGLAND PALEOTEMPERATURE RECONSTRUCTION**

- 3-9 11:00 AM Zhao, Boyang*; Castañeda, Isla S.; Bradley, Raymond S.; Salacup, Jeffrey M.: **A LATE HOLOCENE DECADAL-RESOLUTION TEMPERATURE RECORD FROM SOUTH GREENLAND: A CASE STUDY IN THE APPLICATION OF BRGDGTS TO ARCTIC LAKES**
- 3-10 11:20 AM Habicht, Helen*; Castañeda, Isla S.; Brigham-Grette, Julie; Thomas, Elizabeth K.; Salacup, Jeffrey M.: **ARCTIC HYDROCLIMATE AND VEGETATION VARIABILITY FROM 0-200 KA: STABLE ISOTOPE AND BIOGEOCHEMICAL RECORDS FROM LAKE EL'GYGYTGYN, NE RUSSIA**
- 3-11 11:40 AM Daniels, William*; Castañeda, Isla S.; Salacup, Jeffrey M.; Brigham-Grette, Julie: **LACUSTRINE BIOMARKER RECONSTRUCTION OF ARCTIC CLIMATE BEFORE, DURING, AND AFTER THE MID-PLIOCENE WARM PERIOD**

SESSION NO. 4

T26. Evolution of the Taconic Foreland: Insights into Active Margins and Global Climate Change

8:00 AM, DoubleTree by Hilton Diamond II Ballroom

Charles E. Mitchell, Robert D. Jacobi, Francis A. Macdonald and Jeffrey T. Pietras, Presiding

- 4-1 8:00 AM Amodeo, Stephanie Clarice*: **PALEOENVIRONMENTAL PROXIES AND DEPOSITIONAL ENVIRONMENT OF THE LOWER UTICA SHALE (UPPER ORDOVICIAN) IN CORES 74NY10 & 75NY2 CENTRAL MOHAWK VALLEY, NY**
- 4-2 8:20 AM Frieman, Richard A.*; Amodeo, Stephane C.; Mitchell, Charles E.: **FAUNAL AND GEOCHEMICAL EVIDENCE FOR SIGNIFICANT RESTRICTION OF THE BASAL UTICA SHALE**
- 4-3 8:40 AM Mitchell, Charles E.*; Jacobi, Robert D.; Amodeo, Stephane C.; Frieman, Richard; Bana, Davide: **GEOCHEMICAL AND FAUNAL EVIDENCE SUGGESTS THAT THE UTICA SHALE WAS DEPOSITED IN A RESTRICTED RETROARC FORLAND BASIN**
- 4-4 9:00 AM Bana, Davide*; Mitchell, Charles E.: **ASTRONOMICALLY FORCED CYCLICITY IN THE UPPER ORDOVICIAN UTICA SHALE, TACONIC FORELAND BASIN, MOHAWK VALLEY REGION, NY, USA**
- 4-5 9:20 AM Marshall, Nathan*; Mitchell, Charles E.; Thomas, Elizabeth K.: **PATTERNS OF CHANGE IN BIOMARKER SIGNATURES SUPPORT A LINKAGE BETWEEN GRAPTOLITE AND PHYTOPLANKTON COMMUNITY CHANGES**
- 4-6 9:40 AM Pietras, Jeffrey T.*; Spiegel, Ethan B.; Miserendino, Daniel R.: **DEPOSITIONAL PROCESSES AND XRF GEOCHEMISTRY OF THE UTICA SHALE WITHIN THE ORDOVICIAN OUTCROP BELT IN CENTRAL NEW YORK STATE**
- 10:00 AM **BREAK**
- 4-7 10:15 AM Rust, Tyler J.*; Pietras, Jeffrey T.; Graney, Joseph R.: **CHARACTERIZING UTICA SHALE DEPOSITIONAL PROCESSES USING PORTABLE XRF ANALYSES AND POSITIVE MATRIX FACTORIZATION**
- 4-8 10:35 AM Conwell, Christopher T.*; Saltzman, Matthew R.; Edwards, Cole T.: **ASSESSING CRITICAL DRIVERS OF THE ORDOVICIAN GREENHOUSE-ICEHOUSE TRANSITION WITH PAIRED STRONTIUM AND NEODYMIUM ISOTOPE STRATIGRAPHY**
- 4-9 10:55 AM Martz, Tanner L.*; Gemballa, Benjamin T.; Kamenov, George D.; Mathur, Ryan: **PB ISOTOPIC EVIDENCE FROM GALENA AND THE TACONIC FORELAND SEDIMENTS FOR A BASEMENT SOURCE OF METAL IN FORT ROBERDEAU REVOLUTIONARY MINES, CENTRAL PA**
- 4-10 11:15 AM White, Shawna E.*; Waldron, John W.F.: **DIACHRONOUS DEVELOPMENT OF THE TACONIAN PRO-ARC BASIN IN THE NORTHERN APPALACHIANS**

SESSION NO. 5**T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones I: A Session Honoring The Work of Robert D. Jacobi**

8:00 AM, DoubleTree by Hilton Emerald III Ballroom

Keith Klepeis, Jonathan J. Kim and Jean Crespi, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 5-1 8:05 AM Cooke, Michele L.*: **WHAT DRIVES FAULT SYSTEM REORGANIZATION?**
- 5-2 8:45 AM Valentino, David*; Chiarenzelli, Jeffrey: **SHAWINIGAN SUBDUCTION AND TRANSCURRENT ASSEMBLY OF THE ADIRONDACK MASSIF, NEW YORK**
- 5-3 9:05 AM Kim, Jonathan J.*; Klepeis, Keith A.: **SUPERPOSED FAULT GENERATIONS AND THE ARCHITECTURE OF THE CHAMPLAIN VALLEY BELT OF NW VERMONT**
- 5-4 9:25 AM Webb, Laura E.*; Klepeis, Keith A.; Kim, Jonathan J.: **NEW INSIGHTS ON ACADIAN DEFORMATION AND REACTIVATION IN NORTHERN VERMONT FROM INTEGRATED STRUCTURAL AND GEOCHRONOLOGICAL STUDIES**
- 5-5 9:45 AM Klepeis, Keith*; Webb, Laura E.; Merson, Matthew Q.; Kim, Jonathan J.: **UNRAVELING FAULT REACTIVATIONS AND THEIR TECTONIC SIGNIFICANCE USING INTEGRATED STRUCTURAL DATA AND ⁴⁰AR/³⁹AR GEOCHRONOLOGY, EXAMPLES FROM NW VERMONT AND SW NEW ZEALAND**
- 10:05 AM **BREAK**
- 5-6 10:20 AM Dietsch, Craig*; Neale, Shannon: **FIELD EVIDENCE FOR THE DUCTILE FAULT ORIGIN OF MAFIC AND GRANITIC SCHIST IN THE NORTHERN STAMFORD AND POUND RIDGE QUADRANGLES, SOUTHWESTERN CONNECTICUT**
- 5-7 10:40 AM Wathen, Bryan*; McAleer, Ryan J.; Deasy, Ryan T.; Wintsch, Robert: **METAMORPHIC DIFFERENTIATION BY DISSOLUTION-PRECIPITATION CREEP IN FAULT-ROCK PHYLLONITES**
- 5-8 11:00 AM Holyoke, Caleb*: **STRAIN LOCALIZATION DUE TO GRAIN SIZE SENSITIVE CREEP IN THE SCITUATE GRANITE, RHODE ISLAND**
- 5-9 11:20 AM Mako, Calvin A.*: **SHEAR HEATING IN THE SANDHILL CORNER MYLONITE ZONE, MAINE**
- 5-10 11:40 AM Hatcher, Robert D.*: **THE BREVARD FAULT: PALEOZOIC MULTIPLE REACTIVATION BELOW AND ABOVE THE DUCTILE-BRITTLE TRANSITION, AND KINEMATIC INSIGHTS FROM FAR-TRAVELED HORSES**

SESSION NO. 6**T30. Petrologic Insights on Modern and Ancient Plate Margins I: The Volcanic, Plutonic, and Metamorphic Records**

8:00 AM, DoubleTree by Hilton University Amphitheater

Emily M. Peterman, Howell Bosbyshell, Victor Guevara, Sara Mana and Alicia M. Cruz-Urbe, Presiding

- 6-1 8:00 AM Koteas, G. Christopher*; Eddy, Christopher: **LINKS BETWEEN MAGMATISM AND STRAIN LOCALIZATION ALONG THE TACONIC/ ACADIAN INTERFACE IN CENTRAL VERMONT**
- 6-2 8:20 AM Shute, Jonathan M.*: **FIELD RELATIONS, PETROLOGY, AND TECTONIC SETTING OF MAFIC ROCKS IN THE NORTHWESTERN ASPY TERRANE, CAPE BRETON ISLAND, NOVA SCOTIA, CANADA**
- 6-3 8:40 AM Sinton, Christopher W.*; Chiarenzelli, Jeffrey; Coish, Raymond; Badger, Robert L.: **COMPARISON OF NEOPROTEROZOIC AND MESOZOIC DIKES IN THE EASTERN ADIRONDACK MOUNTAINS**
- 6-4 9:00 AM Seaman, Sheila*; Hamdi, Sumaya: **CRUSTAL STRUCTURE AND LATE PALEOZOIC SUPERVOLCANO-SCALE ERUPTIONS IN MAINE, USA**
- 6-5 9:20 AM Tanner, Lawrence H.*; Kyte, Frank T.; Puffer, John H.: **SIGNIFICANCE OF ELEVATED IRIIDIUM AND PLATINUM GROUP ELEMENT RATIOS IN UPPER TRIASSIC-LOWER**

JURASSIC CONTINENTAL STRATA OF THE NEWARK SUPERGROUP

- 6-6 9:40 AM Gibson, David*: **ENRICHMENT OF REE BEARING ACCESSORY PHASES BY MAGMATIC PROCESSES; EVIDENCE FROM THE MT WALDO PLUTON, COASTAL MAINE**
- 10:00 AM **BREAK**
- 6-7 10:15 AM Leiter, Sophia H.*: **PRE-ERUPTIVE STORAGE AND EVOLUTION OF HIGH-MG BASALTS IN THE SOUTHERN CASCADE ARC**
- 6-8 10:35 AM Westerman, David S.*; Rocchi, Sergio; Breitreuz, Christoph; Stevenson, Carl T.: **STRUCTURES RELATED TO THE EMPLACEMENT OF SHALLOW-LEVEL INTRUSIONS: A TEMPORAL ORGANIZATION**
- 6-9 10:55 AM Wintsch, R.P.*; Kim, S.J.; Jeong, Y-J; Lee, S.; FitzGerald, C.S.; Bish, David L.; Yi, Keewook; Devlin, William: **DETRITAL ZIRCON IN THE CLOUGH QUARTZITE CENTRAL CONNECTICUT: EFFECTS OF STRATIGRAPHIC POSITION AND GRAIN SIZE**

MORNING POSTER TECHNICAL SESSIONS**SESSION NO. 7****T23. Application of Strain, Fabric, and Textural Analyses to Ductile Fabrics in Investigations of Orogenic Processes (Posters)**

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

Booth #

- 7-1 1 Farrell, Thomas Patrick*; Baxter, Ethan F.; Aerden, Domingo G.A.M.; Stewart, E.M.: **INVESTIGATING THE TECTONIC SIGNIFICANCE OF FOLIATION INTERSECTION AXES (FIA) WITHIN GARNET USING SM-ND GEOCHRONOLOGY**
- 7-2 2 Yager, Kristie*; Ketchum, Adam; Bier, Sara E.; Shrader, Christian; Wilson, Sam: **KINEMATIC HISTORY OF THE CLARE MYLONITE IN THE NORTHWEST ADIRONDACKS: STRUCTURAL AND PETROGRAPHIC ANALYSIS**
- 7-3 3 Morales, Victor M.*; Solar, Gary S.; Tomascak, Paul B.: **THE GRANITE BOUDINAGE STRAIN RECORD IN DEFORMED MIGMATITES IN THE NORUMBEGA SHEAR ZONE SYSTEM, SOUTHERN MAINE - PART 2: STRAIN QUANTIFICATION**
- 7-4 4 Labat, Gaëlle Morgane*; Gervais, Felix: **DELINEATION AND CHARACTERIZATION OF THE ALLOCHTHON BOUNDARY THRUST IN THE CENTRAL GRENVILLE PROVINCE (NORTH-EAST OF THE MANICOUAGAN RESERVOIR, QUEBEC, CANADA)**
- 7-5 5 Webber, Jeffrey R.*; Klepeis, Keith A.: **AN OBJECTIVE APPROACH TO THE QUANTIFICATION OF STRAIN IN THREE-DIMENSIONS WITH CONSIDERATION OF ERROR ASSESSMENT**
- 7-6 6 Webber, Jeffrey R.*; Shepherd, Jarrett; Ternova, Anna; Shamus, Tim; Kalakay, Thomas; Lageson, David R.; Avelar Flores, Alex; Langschultz, James: **OFF-FAULT DISTORTIONAL STRAIN ANALYSIS WITHIN THE OOLITIC RIERDON FORMATION OF THE HELENA SALIENT, SOUTHWEST MONTANA: IMPLICATIONS FOR THE MECHANICS OF DEFORMATION AND STRAIN LOCALIZATION**

SESSION NO. 8**D1. Geochemistry (Posters)**

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

Booth #

- 8-1 7 Harik, Savannah*; Cardace, Dawn; Kortz, Karen M.: **SPATIAL EXAMINATION OF TRAVERTINE DEPOSIT MINERALOGY IN THE COAST RANGE OPHIOLITE**

- 8-2 8 Beningson, Nathan*; Ryan, Peter C.; Kim, Jonathan J.: **THE EFFECT OF CALCITE-BEARING VEINS ON GROUNDWATER GEOCHEMISTRY IN A FRACTURED ROCK AQUIFER SYSTEM**
- 8-3 9 Fontaine, Joseph Edward*; Fontaine, Samuel; Eby, G. Nelson: **GEOCHEMISTRY OF ORE MINERALS AND CALCITE FROM THE FRANKLIN AND STERLING HILL ZINC MINES**
- 8-4 10 Croze, Joseph Ryan*; Kennedy, Steven J.; Chakraborty, Sourav; Oyewumi, Oluyinka: **GEOCHEMICAL ASSESSMENT OF POLYCHLORINATED BIPHENYL (PCBS) AND OTHER TRACE ELEMENTS WITHIN THE LOWER SEGMENT OF THE HOUSATONIC RIVER, CONNECTICUT**
- 8-5 11 Oyewumi, Oluyinka*; Meadows, Maxwell C.; Colucci, Emma C.; Weinstein, Allison: **EVALUATING MOBILIZATION AND TRANSPORT OF TRACE ELEMENTS WITHIN PREDOMINANTLY AGRICULTURAL SOILS OF LEBANON, CT**
- 8-6 12 Colucci, Emma C.*; Oyewumi, Oluyinka: **SOURCES, DISTRIBUTION, AND TRANSPORT OF MERCURY AND OTHER TRACE ELEMENTS WITHIN FARMINGTON RIVER SEDIMENTS, HARTFORD COUNTY, CT**
- 8-7 13 Abdul, Barakat*; Herzberger, Kyra; Abbott, Dallas H.: **ANALYSIS OF MICRO METEORITE FRAGMENTS IN CORE SAMPLES FROM THE HUDSON VALLEY**
- 8-8 14 Beaudoin, Casey*; Eby, G. Nelson: **TRACE ELEMENT CHEMISTRY OF EMERALDS**
- 8-9 15 Peek, Molly*; Newton, Robert M.; Anderson, Marc R.: **SOURCES OF SOLUTES IN A HIGH ARCTIC GLACIAL MELT WATER STREAM**
- 8-10 16 Jenkins, David M.; Schneider, Jonathan*: **STABILITY OF SODALITE RELATIVE TO NEPHELINE IN NaCl-H₂O BRINES AT 0.6 GPA AND 750 °C**
- 8-11 17 Malstrom, Nicole*; Grandstaff, David E.: **X-RAY DIFFRACTION ANALYSIS OF GLAUCONITE INTER-LAYER THICKNESS: A NEW METHOD OF ASSESSING GLAUCONITE MATURITY**
- 8-12 18 Edenborn, H.M.*; Fink, Madison S.; Schiele, Andrea; Herman, Ellen K.; Toran, Laura: **FIELD PERFORMANCE OF NDIR-BASED SENSORS FOR THE CONTINUOUS MEASUREMENT OF DISSOLVED CO₂ IN KARST SPRINGS**

SESSION NO. 9

D2. Geophysics (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- 9-1 19 Smith, Kimberly*; Valentino, David: **GROUNDWATER TABLE CHARACTERIZATION USING ELECTRICAL RESISTIVITY IN THE EASTERN LAKE ONTARIO DUNES DURING THE 2016-2017 RECORD HIGH LAKE LEVEL PERIOD, OSWEGO COUNTY, NEW YORK**
- 9-2 20 Jameson, Heather Dawn*; Jayawickreme, Dushmantha H.: **MAPPING THE WATER TABLE WITH GROUND PENETRATING RADAR IN SHALLOW GROUNDWATER ENVIRONMENTS**
- 9-3 21 Marotta, Stephen*; Revetta, Frank A.: **USE OF DELAWARE EARTHQUAKE OF NOV-30 2017 TO DETERMINE CRUSTAL STRUCTURE IN NORTHERN AND EASTERN UNITED STATES**
- 9-4 22 Powers, Monica C.*; Anastasio, David J.; Pares, Josep M.: **APPLICATION OF ROCK MAGNETIC BASED CYCLOSTRATIGRAPHY TO THE BAZA LAKE, SPAIN AND IMPLICATIONS FOR PLEISTOCENE HUMAN OCCUPATION OF THE IBERIAN PENINSULA**
- 9-5 23 Williams, Kevin K.*; Luther, Brandon D.: **USING GPR TO EXPAND OUR VIEW OF THE SUBSURFACE AT OLD FORT NIAGARA**
- 9-6 24 Frazer, William*; Guinta, Jason; Schaaake, Ryan; Wilenski, Ethan; Witt, Dylan; de Smet, Timothy: **ALTERNATIVES TO GROUND PENETRATING RADAR FOR THE DETECTION OF CLANDESTINE GRAVES**
- 9-7 25 Baur, Jasper*; Frazer, William; Abramowitz, Jacob; Denara, Sean; Aglietti, Nick; Finan, Dan; Campos, Gabriel; de Smet, Timothy:

AERIAL THERMAL INFRARED DETECTION OF PFM-1 PLASTIC BUTTERFLY MINES

SESSION NO. 10

D3. Paleontology (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- Booth #
- 10-1 26 Goldsmith, E.R.*; Tumarkin-Deratzian, A.R.; Padalkar, M.V.; Fiorillo, A.R.; Pleshko, N.; Chemtob, S.M.; Grandstaff, D.E.: **BONE HISTOLOGY AND DIAGNOSIS OF ARCTIC CENTROSAURINE CERATOPSIDS FROM THE KIKAK-TEGOSEAK QUARRY (NORTH SLOPE, ALASKA)**
- 10-2 27 Inabinett, Matthew*: **POSTCRANIAL ANATOMY OF A NEW, WELL-PRESERVED SPECIMEN OF THE DINOSAUR *DRYOSAURUS ALTUS* (ORNITHISCHIA, DRYOSAURIDAE) FROM ALBANY COUNTY, WYOMING**
- 10-3 28 Davidson, Gavin Jeffrey*; McRoberts, Christopher: **LATITUDINAL BIODIVERSITY GRADIENTS FOR LATE-PALEOZOIC AND EARLY MESOZOIC SYNAPSIDS**
- 10-4 29 Strother, Paul K.*: **HABITAT HETEROGENEITY IN NON-MARINE SETTINGS AS A PROMOTER OF EVOLUTIONARY NOVELTY**
- 10-5 30 LeTourneau, Peter M.; McDonald, Nicholas G.*; Olsen, Paul E.: **FOOTPRINTS, FOOD WEBS, AND FACIES: UNRAVELING ECOSYSTEM DYNAMICS IN THE EARLY JURASSIC HARTFORD RIFT BASIN (USA)**
- 10-6 31 Maracek, Casey*; Bartholomew, Alex J.: **TRACE FOSSILS OF THE MIDDLE DEVONIAN STONY HOLLOW FAUNA, HURLEY & CHERRY VALLEY MEMBERS, KINGSTON, NY**
- 10-7 32 Sievers, Kevin*; Daeschler, Ted: **DESCRIBING THE LOWER JAW OF THE STEM TETRAPOD *TIKTAALIK ROSEAE* (LATE DEVONIAN: FRASNIAN) THROUGH COMPUTED TOMOGRAPHY DATA**
- 10-8 33 Pier, Jaleigh Q.*; Brisson, Sarah; Bush, Andrew M.: **PALEOENVIRONMENTAL SELECTIVITY OF THE LOWER KELLWASSER MASS EXTINCTION EVENT (LATE DEVONIAN) IN NEW YORK AND PENNSYLVANIA**
- 10-9 34 Miller, April A.*; Schiffbauer, James D.; Quinton, Page C.: **LATE ORDOVICIAN PHOSPHATIC MICROFOSSIL SPHERES FROM ROCHESTER, MINNESOTA**
- 10-10 35 Whitaker, Anna F.*; Patzkowsky, Mark E.; Christie, Max: **GRADIENT ANALYSIS OF UPPER ORDOVICIAN FOSSIL ASSEMBLAGES IN THE TACONIC FORELAND BASIN: COMPARISON OF CENTRAL PENNSYLVANIA AND VIRGINIA**
- 10-11 36 Pidel, Martin A.*; Bartholomew, Alexander: **A NEW SPECIES OF CYSTITHALYSITES FROM ROSENDALE/KINGSTON AREA, NEW YORK**
- 10-12 37 Thornburg, Jesse D.*; Cushman, Elizabeth M.; Sparacio, Christopher A.; Pope, Gina Ginevra: **LARGE BURROWS FROM THE LOWER MISSISSIPPIAN HUNTLEY MOUNTAIN FORMATION, NORTHEASTERN PENNSYLVANIA**
- 10-13 38 Reichard-Flynn, Willow R.*; Evans, Shannon N.; Kisluk, Isabelle Z.; Underwood, Abigail C.; Simpson, Edward L.; Wizevich, Michael C.: **A PROBABLE EARLY CRETACEOUS PARACOPID DUNG BEETLE NEST, UPPER YELLOW CAT MEMBER, CEDAR MOUNTAIN FORMATION, EAST-CENTRAL UTAH**
- 10-14 39 Grandstaff, David E.*; Wiest, Logan A.; Buynevich, Ilya V.; Terry, Dennis O.: **ANALYSIS OF MEASURED *THALASSINOIDES* ISP. DIAMETERS ACROSS THE CRETACEOUS-PALEOGENE BOUNDARY AT SEWELL, NJ (USA) USING GAUSSIAN CURVE-FITTING**
- 10-15 40 Feldman, Howard R.*; Belowich, Talia J.: **THE TRIASSIC SAHARONIM FORMATION OF THE SEPHARDIC PROVINCE ON THE SOUTHERN TETHYAN MARGIN IS AN ANALOG FOR THE TRIASSIC GERMANIC MUSCHELKALK OF WESTERN EUROPE**
- 10-16 41 Censullo, Shaolin Meliora*; McRoberts, Christopher: **MORPHOMETRIC ANALYSIS ON THE EVOLUTION AND**

- HETEROCHRONY IN THE MIDDLE AND LATE ORDOVICIAN OLENID TRILOBITES *TRIARTHURUS BECKII* AND *TRIARTHURUS EATONI* FROM NEW YORK**
- 10-17 42 Rosensaft, Marcelo*; Feldman, Howard R.: **INTERACTIVE MAP PORTAL OF SOME IMPORTANT FOSSIL LOCALITIES ALONG THE SOUTHERN TETHYAN MARGIN OF THE SEPHARDIC (TRIASSIC) AND ETHIOPIAN (JURASSIC) FAUNAL PROVINCES**
- 10-18 43 Yaeger, Hannah R.*; Elick, Jennifer M.: **PALEOECOLOGICAL ANALYSIS OF SHELL BEDS FROM THE TRIMMERS ROCK FORMATION (UPPER DEVONIAN- FRASNIAN) ALONG PA STATE ROUTE 322, CENTRAL PENNSYLVANIA**
- 10-19 44 Buynevich, Ilya V.; Sparacio, Christopher A.*; Curran, H. Allen; Kopcznski, Karen A.; Park Boush, Lisa E.; Glumac, Bosiljka: **HURRICANE WASHOVER SANDS PROVIDE A SUITABLE SUBSTRATE FOR REGISTERING RARE TRACKWAYS IN BAHAMIAN MANGROVES**
- 10-20 45 Ciccariello, A.R.*; Daeschler, Ted: **EXPLORING A NEW SPECIES OF ONYCHODONTID FOSSIL FISH FROM THE LATE DEVONIAN (382-360 MILLION YEARS AGO)**
- 10-21 46 McClure, Timothy C.*; Busch, Richard M.: **CHANGE IN EDENIAN TRIARTHURUS SPECIES ALONG A DEPTH GRADIENT IN THE TACONIC FORELAND BASIN, PENNSYLVANIA**
- 10-22 47 Schuster, Erin B.*: **GRAPTOLITE SYNONYMIES: CORRELATION TO NAMING AUTHOR OR NAMING YEAR?**
- 10-23 48 Paradis, Michael J.*: **RECONSTRUCTION OF LATE-GLACIAL MARINE PALEOECOLOGY IN NORRIDGEWOCK, MAINE**
- 10-24 49 Torstenson, Morgan L.*; Harnik, Paul G.: **EFFECTS OF NATURAL AND ANTHROPOGENIC EUTROPHICATION ON BIVALVE LIFE HISTORY IN THE NORTHERN GULF OF MEXICO**
- 10-25 50 Pilkington, Paul Michael*; Chen, Roslin; Mitchell, Joshua; Haj Soltan, Farzaneh; Viscek, Josef; McCarthy, Francine M.G.; Knights, Cooper; Newcombe, Hannah; Hubeny, J. Bradford; Monecke, Katrin: **RISE OF THE GREEN ALGAE: ALGAL PALYNOFORMS RECORD THE HISTORY OF WALDEN POND**
- 10-26 51 Krueger, Andrea M.*; McCarthy, Francine M.G.; Schuler, Matthew S.; Pilkington, Paul Michael; Kornecki, Krysia; Garner, Caitlin S.; Vasseur, Liette; Relyea, Rick; Katz, Miriam; Eichler, Lawrence: **DINOFLLAGELLATES IN LAKE GEORGE: FROM THE WATER COLUMN TO THE LAKEBED**
- 11-8 59 Hulstein, Neal*; Evans, Mark A.: **THE FRACTURE AND FLUID HISTORY OF THE BIG ELK ANTICLINE IN THE IDAHO PORTION OF THE NORTHERN WYOMING SALIENT**
- 11-9 60 Murphy, Ian*; Evans, Mark A.; Salg, Heidi: **THE FRACTURE AND FLUID HISTORY OF TWO ANTICLINES IN THE NORTHERN WYOMING SALIENT**
- 11-10 61 Evans, Mark A.*: **THE EFFECTS OF SYNTECTONIC LOADING ON THE STRUCTURAL GEOMETRY AND DEVELOPMENT OF VALLEY & RIDGE OF THE PENNSYLVANIA SALIENT**
- 11-11 62 Hughes, Brendan*; Landell, Chrisette; Evans, Mark A.: **AN INVESTIGATION INTO THE MECHANICAL STRATIGRAPHY OF A PORTION OF THE TRIASSIC NEW HAVEN ARKOSE, SIMSBURY, CONNECTICUT**
- 11-12 63 McGinnis, Robert J.*; Sasowsky, Ira D.; Holyoke, Caleb: **ROLE OF ROCK MECHANICAL PROPERTIES IN MAJOR CAVE DEVELOPMENT**
- 11-13 64 Proctor, Atticus M.*; West, David P.: **BEDROCK GEOLOGY OF THE ORDOVICIAN CASCO BAY GROUP, HARPSWELL, MAINE**
- 11-14 65 Cartwright, Samuel F.A.*; West, David P.: **DETRITAL ZIRCON GEOCHRONOLOGY OF STRATA FROM MULTIPLE ACCRETED TERRANES IN SOUTH-CENTRAL MAINE**
- 11-15 66 Robinson, Jessica*; Crespi, Jean: **STRUCTURAL GEOMETRY OF THE TACONIC ALLOCHTHON: A CURVED OROGENIC BELT AND ITS ZONE OF INCLINED TRANSPRESSION, VERMONT AND NEW YORK**
- 11-16 67 Bradley, Dwight C.*: **MESOPROTEROZOIC DETRITAL ZIRCONS FROM NEOPROTEROZOIC STRATA IN WEST AFRICA AND IMPLICATIONS FOR APPALACHIAN TERRANES**
- 11-17 68 Xu, Xiaohui*; Sullivan, Walter A.: **MECHANISMS OF STRAIN LOCALIZATION: A CASE STUDY OF MAFIC METAVOLCANIC ROCKS OF THE WESTERN HAYFORK SUBTERRANE, KLAMATH MOUNTAINS, NW CALIFORNIA**

AFTERNOON ORAL TECHNICAL SESSIONS

SESSION NO. 12

T2. Applications of Geoscience to Government and Community Issues

1:30 PM, DoubleTree by Hilton Emerald II Ballroom

Marjorie Gale, Gale C. Blackmer and Rick Chormann, Presiding

SESSION NO. 11

D4. Structural Geology and Tectonics (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- Booth #
- 11-2 53 Kilkelly, Patrick*; Koval, Alexander; Valentino, David; Valentino, Joshua; Gates, Alexander E.: **FRACTURE ANALYSIS ALONG THE KANAWAUKE FAULT ZONE, HUDSON HIGHLANDS, NEW YORK**
- 11-3 54 Anderson, Danielle M.*; Holyoke, Caleb: **DEFORMATION OF WATER-DEPLETED QUARTZITE**
- 11-4 55 Wright, Michael*; Cornish, Zachary: **ANALYSIS OF JOINTS ACROSS THE UPPER DEVONIAN SONYEA GROUP AND WEST FALLS GROUP BOUNDARY, CONNECTICUT HILL STATE FOREST, SCHUYLER COUNTY, NEW YORK**
- 11-5 56 Tam, Evan*; Webb, Laura E.; Aiken, Cheyenne: **GEOCHRONOLOGIC CONSTRAINTS ON THE TIMING OF DEFORMATION IN THE FOOTWALL OF THE PROSPECT ROCK FAULT IN NORTH-CENTRAL VERMONT**
- 11-6 57 O'Brien, Patrick*; Maciel, Tomas; Koteas, G. Christopher: **GROUNDWATER FLOW AND COMPOSITION CHARACTERIZATION USING OUTCROP FRACTURE ANALYSIS FOR A BEDROCK AQUIFER**
- 11-7 58 DiPuccio, Rebecca*; Holyoke, Caleb: **DOES FOLIATION ORIENTATION AFFECT THE STRENGTH OF THE MIDDLE TO LOWER CONTINENTAL CRUST?**
- 12-1 1:30 PM Gale, Marjorie H.*; Kim, Jonathan J.; Springston, George E.; Dowey, Colin: **GEOLOGIC MAPPING, HAZARDS AND WATER: VERMONT GEOLOGICAL SURVEY'S IMPACT ON PUBLIC ISSUES**
- 12-2 1:50 PM Spigel, Lindsay*: **CHARACTERIZATION OF LARGE LANDSLIDES RELATED TO THE PRESUMPCOT FORMATION, SOUTHERN MAINE**
- 12-3 2:10 PM Springston, George E.*; Gale, Marjorie H.: **A LIDAR-BASED LANDSLIDE INVENTORY OF WASHINGTON COUNTY, CENTRAL VERMONT**
- 12-4 2:30 PM Barker, Gregory*; Chormann, Rick: **PUBLIC DATA DISSEMINATION: A CASE STUDY OF NEW HAMPSHIRE GROUNDWATER LEVEL DATA SYSTEM AND OBSERVATION COMMUNICATION**
- 12-5 2:50 PM Dowey, Colin W.*; Gale, Marjorie: **CHARACTERIZATION OF VERMONT'S GROUNDWATER RESOURCES**
- 3:10 PM **BREAK**
- 12-6 3:25 PM Anthony, Robin V.*; Patchen, Doug; Moore, Jessica Pierson; Solis, Michael: **MAPPING AND RESERVOIR CHARACTERIZATION OF GEOLOGIC INTERVALS FOR NGL STORAGE APPLICATIONS**

SUNDAY, 18 MARCH

- 12-7 3:45 PM Schmid, Katherine W.*; Carter, Kristin: **RATING AND RANKING GEOLOGIC INTERVALS FOR NGL STORAGE APPLICATIONS IN THE TRI-STATE AREA**
- 12-8 4:05 PM Reeder, Grant*; Rossi, Amanda M.; Czyzyk, Katelyn A.; Williamson, Landon; Perdrail, Nicolas: **BIOACCESSIBLE PB IN BURLINGTON (VT) SOILS: FIELD AND MICROSCALE CONTROLS**
- 12-9 4:25 PM Csiki, Shane*: **A STATE GEOLOGICAL SURVEY'S LEADERSHIP TO THE PUBLIC POLICY OF STREAM CROSSINGS: THE NEW HAMPSHIRE EXPERIENCE**
- 12-10 4:45 PM Degnan, James R.*; Lindsey, Bruce D.; Levitt, Joseph P.: **THE RELATION OF OCCURRENCE OF GEOGENIC CONTAMINANTS TO RECHARGE AGE, REDOX CONDITIONS, AND DISTANCE ALONG FLOW-PATHS IN ATLANTIC AND GULF COASTAL PLAIN AQUIFERS, EASTERN USA**
- 12-11 5:05 PM Blackmer, Gale C.*: **WHY STATE GEOLOGICAL SURVEYS?**

SESSION NO. 13

T21. Stratigraphic Studies along the Western Margin of the Appalachian Orogens

1:30 PM, DoubleTree by Hilton Diamond I Ballroom

Paul Washington and James R. Ebert, Presiding

- 13-1 1:30 PM Maguire, Henry C.*; Mehrtens, Charlotte; Kim, Jonathan J.; Romanowicz, Ed: **APPLICATION OF GEOPHYSICAL METHODS TO STRATIGRAPHIC PROBLEMS IN THE LOWER CAMBRIAN MONKTON FORMATION: NW VERMONT**
- 13-2 1:50 PM Washington, Paul A.*; Chisick, Steven A.: **STRUCTURAL JUXTAPOSITION OF DIFFERING STRATIGRAPHIC SUCCESSIONS IN THE CHAMPLAIN VALLEY**
- 13-3 2:10 PM Bartholomew, Alex*: **CORRELATION AND REVISION OF UPPER SILURIAN STRATIGRAPHY ACROSS NEW YORK STATE**
- 13-4 2:30 PM Ebert, James R.*; Slavik, Ladislav; Matteson, Damon K.; Barr, Michael: **POST-JAMESVILLE MEMBER (MANLIUS FORMATION, HELDERBERG GROUP) STRATIGRAPHY AND THE AGE OF THE MOSQUITO POINT REEF, MUNNSVILLE, NEW YORK**
- 13-5 2:50 PM Bush, Andrew M.*; Beard, J. Andrew; Hren, Michael T.: **STRATIGRAPHY OF THE FRASNIAN-FAMENNIAN MASS EXTINCTION INTERVAL (UPPER DEVONIAN) IN THE NORTHERN APPALACHIAN BASIN**
- 13-6 3:10 PM Baird, Gordon C.*; Hannibal, Joseph T.; Wicks, John L.: **END-DEVONIAN (LATEST FAMENNIAN) SUCCESSION IN WESTERN AND CENTRAL OHIO: POTENTIAL DEPOSITIONAL CONTINUITY THROUGH THE HANGENBERG TIME-ROCK INTERVAL AND ITS REGIONAL IMPLICATIONS**
- 13-7 3:30 PM Alansari, Nawaf; Jeffery, David L.*; Washington, Paul A.: **EVIDENCE FOR HYDROTHERMAL-FLUID-DRIVEN DIAGENESIS OF DUNKARD GROUP STRATA IN SOUTHEASTERN OHIO**

SESSION NO. 14

T25. Post-Rift Tectonism and Landscape Evolution in Eastern North America

1:30 PM, DoubleTree by Hilton Diamond II Ballroom

William H. Amidon, David P. West Jr. and Ryan E. McKeon, Presiding

- 14-1 1:30 PM Yang, Xiaotao*; Gao, Haiying: **LINK THE CRUSTAL STRUCTURE WITH SEISMICITY AND TECTONIC TERRANES IN THE NORTHERN APPALACHIANS**
- 14-2 1:50 PM Withjack, Martha O.*; Malinconico, MaryAnn L.; Durcanin, Michael: **ANOMALOUS, LONG-LIVED UPLIFT ON THE 'PASSIVE' MARGIN OF EASTERN NORTH AMERICA: EVIDENCE FOR MAGMATIC UNDERPLATING, CRUSTAL INTRUSION, AND/OR LITHOSPHERIC DRIPS**

- 14-3 2:10 PM Shorten, Chalisa M.*; Fitzgerald, Paul G.: **POST-OROGENIC THERMAL HISTORY AND EXHUMATION OF THE APPALACHIAN LANDSCAPE: LOW-TEMPERATURE THERMOCHRONOLOGIC CONSTRAINTS FROM THE NORTHERN APPALACHIAN BASIN AND THE CATSKILLS**
- 14-4 2:30 PM Wilner, Joel*; Amidon, William H.: **PRELIMINARY RESULTS: DEEP DRILL CORE THERMOCHRONOLOGY, SOUTHEASTERN CONNECTICUT**
- 14-5 2:50 PM Washington, Paul A.*: **EVIDENCE FOR POST-ALLEGHANIAN N-S CONTRACTIONAL DEFORMATION IN EASTERN NORTH AMERICA**
- 3:10 PM **BREAK**
- 14-6 3:25 PM Robbins, Liesel, Sue*; Amidon, William H.: **EVALUATING GEOCHEMICAL SIGNATURES AND TECTONIC IMPLICATIONS OF CALCITE VEINS WITHIN THE CHAMPLAIN VALLEY, VT**
- 14-7 3:45 PM Benfield, Adam J.*; Welkey, Jessica M.; Pazzaglia, Frank J.: **DRAINAGE EVOLUTION OF MID-ATLANTIC SLOPE TRANSVERSE STREAMS: KNICKPOINTS, WIND GAPS, AND DRAINAGE CAPTURES OF THE DELAWARE AND LEHIGH RIVERS**
- 14-8 4:05 PM Gaschnig, Richard*: **EXPANDING THE PROVENANCE TOOLKIT BEYOND DETRITAL ZIRCON DATING: A TEST CASE FROM THE MERRIMACK RIVER**

SESSION NO. 15

T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones II: A Session Honoring The Work of Robert D. Jacobi

1:30 PM, DoubleTree by Hilton Emerald III Ballroom

Keith Klepeis, Jonathan J. Kim and Jean Crespi, Presiding

- 15-1 1:30 PM Jacobi, Robert D.*; Eckert, Craig; Schweigel, Tayler; Starr, Joel; Hrywnak, Anna E.; O'Hara, Alex; Fountain, John C.; Agle, Paul: **ADVANCES IN FAULT SYSTEM RECOGNITION IN THE APPALACHIAN BASIN: OROGEN-PARALLEL STRIKE-SLIP TRANSPORT IN NEW YORK STATE, PENNSYLVANIA AND WEST VIRGINIA**
- 15-2 1:50 PM Schweigel, Tayler*; Jacobi, Robert D.; O'Hara, Alex P.; Hanson, Stacey; Hrywnak, Anna; Willan, Christopher G.; Mitchell, Charles E.: **CHARACTERISTICS AND IMPLICATIONS OF FRACTURES IN CORE AND OUTCROP IN THE ORDOVICIAN UTICA BASIN IN THE MOHAWK VALLEY OF NEW YORK STATE**
- 15-3 2:10 PM O'Hara, Alex P.*; Jacobi, Robert D.: **STRAIN LOCALIZATION CONTROLS ON FRACTURE INTENSIFICATION IN THE ORDOVICIAN UTICA GROUP AND SCHENECTADY FORMATION IN NEW YORK STATE: QUANTIFYING FRACTURE FREQUENCY VARIATIONS USING LINEAR PIECEWISE REGRESSION AND THE AKAIKE INFORMATION CRITERION**
- 15-4 2:30 PM Vollmer, Frederick W.*; Lubicich, Emily J.; Craddock, Tristan; Ver Straeten, Charles: **STRUCTURES ALONG THE EASTERN MARGIN OF THE CATSKILL MOUNTAINS AND THEIR RELATIONSHIPS TO THE HUDSON VALLEY FOLD THRUST BELT, EASTERN NEW YORK**
- 15-5 2:50 PM Wise, Donald*; Grady (Deceased), Lois W.; Salvini, Francesco; Hardcastle, Kenneth C.: **FRACTURE-CONTROLLED LINEAMENT DOMAINS OF THE APPALACHIANS: GEOLOGIC CORRELATIONS AND REPRODUCIBILITY TESTS**
- 15-6 3:10 PM Crespi, Jean*; Farrell, James: **FORTY YEARS OF FAULT-SLIP ANALYSIS IN THE HARTFORD-DEERFIELD BASIN: WHAT HAVE WE LEARNED?**

SESSION NO. 16**T30. Petrologic Insights on Modern and Ancient Plate Margins II: The Volcanic, Plutonic, and Metamorphic Records**

1:30 PM, DoubleTree by Hilton University Amphitheater

Emily M. Peterman, Howell Bosbyshell, Victor Guevara, Sara Mana and Alicia M. Cruz-Urbe, Presiding

- 16-1** 1:30 PM Guevara, Victor*; Dragovic, Besim; Caddick, Mark J.; Coueslan, Chris. G.; Kylander-Clark, Andrew R.C.; MacLennan, Scott A.; Baxter, Ethan F.; Schoene, B.: **ULTRAHIGH TEMPERATURE METAMORPHISM OF ARCHEAN CONTINENTAL CRUST: INSIGHTS FROM THE PETROCHRONOLOGY ARSENAL**
- 16-2** 1:50 PM Wolfe, Oliver M.*; Spear, Frank S.: **OVERINTERPRETATION OF METAMORPHIC PARAGENESSES FROM MINERAL ASSEMBLAGE DIAGRAM ANALYSIS, EXAMPLES FROM THE CONNECTICUT VALLEY SYNCLINORIUM, VERMONT**
- 16-3** 2:10 PM Gallego, Andres*; Manon, Matthew R.F.: **DETERMINING THE P/T PATH OF METAMORPHOSED PHYLLITES USING CHLORITOID-CHLORITE-PHEGITE AND OTHER BLUESCHIST FACIES ASSEMBLAGES IN PELOPONNESUS, GREECE**
- 16-4** 2:30 PM Viète, Daniel R.*; Kylander-Clark, Andrew R.C.; Allen, Mark B.; Seward, Gareth G.E.; Hacker, Bradley R.: **ROCKS OF THE CORDILLERA DE LA COSTA, VENEZUELA RECORD RAPID EXHUMATION FOLLOWING LATE EOCENE, PROTO-CARIBBEAN (ATLANTIC)? SUBDUCTION**
- 16-5** 2:50 PM Alexander, Jane*; Thatcher, Sean; Rivelli, Victoria: **GEOCHEMICAL VARIATION IN METASEDIMENTARY ROCKS ADJACENT TO THE PALISADES SILL – METAMORPHIC INFLUENCE OR ORIGINAL SEDIMENT COMPOSITION?**
- 3:10 PM **BREAK**
- 16-6** 3:25 PM Bosbyshell, Howell*; Lutz, Tim: **DEVONIAN DECOMPRESSION IN HIGH-GRADE METAPELITE FROM THE CENTRAL APPALACHIAN PIEDMONT: RESULTS FROM DIFFUSION MODELING OF CA IN GARNET AND MONAZITE GEOCHRONOLOGY**
- 16-7** 3:45 PM Srogi, LeeAnn*; Bosbyshell, Howell: **MODELING REACTIONS IN DOMAINS OF CONTRASTING COMPOSITION AND MINERAL ASSEMBLAGE IN HIGH-GRADE METAPELITIC ROCKS: AN EXAMPLE FROM THE WILMINGTON COMPLEX, DE-PA PIEDMONT, USA**
- 16-8** 4:05 PM Peterman, Emily M.*; Eusden, J. Dykstra: **MONAZITE GEOCHRONOLOGY RECORDS EARLY ACADIAN AND NEOACADIAN TECTONOMETAMORPHIC EVENTS IN MIDCOAST MAINE**
- 16-9** 4:25 PM Castro, Adrian E.*; Spear, Frank S.; Kohn, Matthew J.: **SHEAR HEATING IN SUBDUCTION ZONES: IMPLICATIONS FOR THERMAL MODELS AND METAMORPHIC P-T PATHS**

SESSION NO. 17**T33. Lake Research and Monitoring Networks in the Northeast**

1:30 PM, DoubleTree by Hilton Emerald I Ballroom

Kiyoko Yokota, David Richardson, Lisa Borre, Patricia Manley and Andrea Lini, Presiding

- 17-1** 1:30 PM Manley, Patricia*; Manley, T.O.; Ghosh, Supriti Jaya; Rosales-Underbrink, Piper; Silverhart, Perri: **SEISMIC TRIGGER LACUSTRINE LANDSLIDES IN LAKE CHAMPLAIN**
- 17-2** 1:50 PM Matthews, Leslie J.*; Merrell, Kellie: **IS VERMONT LOSING ITS OLIGOTROPHIC LAKES?**
- 17-3** 2:10 PM Kelting, Daniel L.*; Laxson, Corey L.; Middleton, Guy: **UPPER SARANAC LAKE MONITORING PROGRAM**
- 17-4** 2:30 PM Daly, Julia*; McCurdy, Wyatt: **USING HIGH-FREQUENCY TEMPERATURE DATA TO EVALUATE THE DURATION OF SPRING MIXING**

- 17-5** 2:50 PM Bruno, Emma C.*; Wander, Heather L.; Reid, Kayla A.; McFadden, Sawyer; Hollander, Anthony J.; Green, Dejea M.; Edwards, Hailee L.; Richardson, David: **AN OLIGO-MESOTROPHIC LAKE PARTIALLY RETURNS TO PAST TROPHIC STATUS AND ECOSYSTEM STRUCTURE UPON LOSS OF AN INTERMEDIATE TROPHIC LEVEL**
- 3:10 PM **BREAK**
- 17-6** 3:25 PM McFadden, Sawyer R.*; Wander, Heather L.; Reid, Kayla A.; Hollander, Anthony J.; Green, Dejea M.; Edwards, Hailee L.; Richardson, David: **NUTRIENT PROFILES OF A LAKE WITH NOVEL FLUCTUATIONS IN DISSOLVED OXYGEN CONCENTRATIONS**
- 17-7** 3:45 PM Leduc, Meagan R.*: **DRIVERS OF PHOSPHORUS PARTITIONING AT THE SEDIMENT-WATER INTERFACE OF TWO SHALLOW EUTROPHIC VERMONT LAKES**
- 17-8** 4:05 PM Burns, Wilton G.*; Stockwell, Jason D.; Smith, Toby; Banco, Bridger; Schroth, Andrew W.: **SIMILAR AND CONTRASTING DRIVERS OF NUTRIENT AND CYANOBACTERIA DYNAMICS IN TWO ADJACENT SHALLOW, EUTROPHIC BAYS IN LAKE CHAMPLAIN**
- 17-9** 4:25 PM Chen, Tina*; Herdman, Liv; Manley, T.O.: **HIGH VERTICAL-RESOLUTION HYDRODYNAMIC MODELING OF MISSISQUOI BAY TOWARDS A BETTER UNDERSTANDING OF WATER QUALITY AND THE EFFECTS OF CAUSEWAYS**
- 17-10** 4:45 PM Manley, T.O.*; Perzan, Zach; Herdman, Liv; Chen, Tina: **CIRCULATION DYNAMICS OF MISSISQUOI BAY; A NEW LOOK AT THE QUESTION OF WATER QUALITY AND CAUSEWAYS**

AFTERNOON POSTER TECHNICAL SESSIONS

SESSION NO. 18**T1. Practical Applications of Engineering Geology (Posters)**

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

Booth #

- 18-1** 1 May, Amanda*; Smith, Rebeka; Parody, Brittany; Gutches, Kristina M.; Jin, Li: **HYDROGEOLOGICAL AND ANTHROPOGENIC CONTROLS ON SPATIAL AND TEMPORAL VARIATIONS IN GROUNDWATER CHEMISTRY IN A GLACIAL-AQUIFER SYSTEM IN CORTLAND, NEW YORK**
- 18-2** 2 Newton, Robert M.*; Anderson, Marc R.; Giardine, Francesca: **EFFECTIVENESS OF PERMEABLE PAVEMENT INSTALLED IN LAKE HITCHCOCK SEDIMENTS**
- 18-3** 3 Disenhof, Corinne R.*; Pelham, Krystle; Olson, Neil F.; Benoit, Jean: **ROCKFALL HAZARD ASSESSMENT USING DIGITAL GEOSPATIAL DATA AND SMART ROCK TECHNOLOGY**
- 18-4** 4 Ashland, Francis X.*; Delano, Helen L.: **INSIGHTS INTO HYDROLOGIC CONTROLS ON REGIONAL LANDSLIDE ACTIVITY NEAR PITTSBURGH, PA FROM MONITORING AND FIELD OBSERVATIONS IN A NATURAL LABORATORY ALONG A HIGHWAY RIGHT-OF-WAY**

SESSION NO. 19**T5. Critical Zone Processes, Function, and Resiliency: Challenges and Opportunities (Posters)**

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

Booth #

- 19-1** 5 Clement, William P.*: **ELECTRICAL RESISTIVITY TOMOGRAPHY TO IMAGE CHANGES IN A GLACIATED AND FRACTURED BEDROCK HILLSIDE**

SUNDAY, 18 MARCH

- 19-2 6 Besancon, James*; Hon, Rudolph; Brabander, Daniel J.; Waller, Maria; Gilbert, Kathleen W.: **A CONSTRUCTED POND AND ITS INTERACTION WITH GROUNDWATER**
- 19-3 7 Kelley, Nicole M.*; Mount, Gregory J.; Terry, Neil; Herndon, Elizabeth; Singer, David M.: **ELECTRICAL RESISTIVITY IMAGING OF PREFERENTIAL SUBSURFACE FLOWPATHS TO MONITOR PASSIVE ACID MINE DRAINAGE SITE CONTAMINANTS**
- 19-4 8 Santoro, Nicholas*; Mount, Gregory J.: **EXAMINING CONDUCTIVITY AND SUBSURFACE HEAVY METAL CONCENTRATIONS WITHIN WESTERN PENNSYLVANIA THROUGH THE USE OF INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROSCOPY**
- 19-5 9 Hubbard, Victoria L.*; LeDone, Kevin J.; Piefer, Abdreu; Chorover, Jon; Balogh-Brunstad, Zsuzsanna: **FUNGAL WEATHERING ACROSS A MOISTURE GRADIENT AT THE SANTA CATALINA CRITICAL ZONE OBSERVATORY**
- 19-6 10 Forbes, Ian C.*; Sengupta, Aditi; Balogh-Brunstad, Zsuzsanna: **MICRO- AND NANO-SCALE WEATHERING OF BASALT IN INCIPIENT SOILS**
- 19-7 11 Armfield, Jesse*; Gagnon, Alex; Perdrial, Julia; Ehrenkranz, Jack; Perdrial, Nicolas; Cincotta, Malayika; Ross, Donald S.; Shanley, James B.; Bailey, Scott; Ryan, Peter: **WEATHERING DYNAMICS IN THE ACID IMPACTED SLEEPERS RIVER: COMBINING OBSERVATIONS OF STREAM AND SOIL DATA**

SESSION NO. 20

T12. Paleolimnological Records of Landscape Change (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

- Booth #
- 20-1 12 Bruce, Jonathan D.*; Graziane, Jonathan F.; Grigg, Laurie D.: **HISTORIC CHANGES IN SEDIMENTATION AND PRODUCTIVITY AT TWIN PONDS, VERMONT**
- 20-2 13 Paradis, Kay*; Cook, Tim; Snyder, Noah P.; LeNoir, James: **EROSIONAL RESPONSE TO FLOODING AND LOGGING IN A HIGH RELIEF, FORESTED WATERSHED RECORDED IN THE SEDIMENTARY RECORD OF LITTLE KENNEBAGO LAKE, NORTHWESTERN MAINE**
- 20-3 14 LeNoir, James*; Cook, Timothy L.; Snyder, Noah P.: **PRELIMINARY EXAMINATION OF POST-GLACIAL SEDIMENTATION IN OSSIPPEE LAKE, NEW HAMPSHIRE: LAND-USE VERSUS CLIMATE CHANGE**
- 20-4 15 Ness, Tristan A.*; Dawe, Andrew; Doner, Lisa A.: **HISTORICAL TRENDS PRESERVED IN THE SEDIMENT RECORD: KEZAR LAKE**
- 20-5 16 Passaretti, Melanie*; Anaya, Mairany; Wong, Sarah; Monecke, Katrin; Brabander, Daniel J.; Hubeny, J. Bradford; McCarthy, Francine M.G.: **A MULTIPROXY ANALYSIS OF SEDIMENT CORES FROM WALDEN POND, CONCORD, MA: INVESTIGATING NATURAL PROCESSES AND HUMAN IMPACTS**
- 20-6 17 Currier, Samantha J.*; Hubeny, J. Bradford; Knudstrup, Renee: **ASSESSMENT OF LACUSTRINE PARTICULATE ORGANIC MATTER AND SURFACE SEDIMENTS: SLUICE POND, LYNN, MA**
- 20-7 18 Ariyaratna, Thivanka S.*; Castaneda, Isla S.; Miller, Daniel R.; Salacup, Jeff: **BRANCHED GDGT DISTRIBUTIONS IN SEBAGO LAKE, ME: DISENTANGLING SOIL AND LACUSTRINE INPUTS TO THE SEDIMENTARY RECORD**
- 20-8 19 Castaneda, Isla S.*; Miller, Daniel R.; Ariyaratna, Thivanka; Salacup, Jeffrey M.: **THE ORGANIC GEOCHEMISTRY OF SEBAGO LAKE SEDIMENTS**
- 20-9 20 Herbert, Jordan N.*; Gillikin, David; Molloy, James B.; Lama Sherpa, Tshering; Rodbell, Donald T.: **INVESTIGATING THE CAUSES OF EUTROPHICATION IN HIGH ANDEAN LAKES (JUNÍN REGION, PERU) THROUGH NITROGEN ISOTOPE ANALYSIS OF SEDIMENT CORES**
- 20-10 21 Duboscq, Sandrine M.*; Thomas, Elizabeth K.; Håkansson, Lena; Schomacker, Anders: **HOLOCENE HYDROCLIMATE IN**

HIGH ARCTIC SVALBARD USING THE HYDROGEN ISOTOPE COMPOSITION OF LEAF WAXES

SESSION NO. 21

D5. Economic Geology and Energy Geology (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

- Booth #
- 21-1 22 Rddad, Larbi*; Herman, Greg: **THE GENESIS OF THE HOPEWELL BARITE ORE DEPOSIT IN RELATION TO THE LATE-JURASSIC EXTENSIONAL TECTONIC ACTIVITY, NEWARK BASIN**
- 21-2 23 Rddad, Larbi*; Mougina, EL Mostafa: **ZONATION OF LEAD AND SULFUR ISOTOPIC COMPOSITIONS AND TRACE ELEMENTS OF ORE SULFIDES IN THE MOROCCAN HIGH ATLAS MVT ORE PROVINCE: IMPLICATIONS FOR ORE EXPLORATION**
- 21-3 24 Fenner, Emily*; Balzani, Peter; Andersen, Allen K.; Singer, Jared: **ORIGIN OF PORT LEYDEN NELSONITE: NEW INSIGHTS FROM OXIDE CHEMISTRY, PETROGRAPHY, AND GEOPHYSICS**
- 21-4 25 Weber, Ellen C.*; Halsor, Sid P.: **DEEP INJECTION AND INDUCED SEISMICITY IN OKLAHOMA AND PENNSYLVANIA: A COMPARISON OF RISK FACTORS**
- 21-5 26 Blood, David R.*: **CREATING GIANTS: THE DEPOSITIONAL AND DIAGENETIC PATHWAYS TO THE ORDOVICIAN POINT PLEASANT LIMESTONE AND DEVONIAN MARCELLUS SHALE UNCONVENTIONAL RESERVOIRS**
- 21-6 27 Murray, Allyson N.*; Langschultz, James; Severs, Matthew J.: **REINVESTIGATING OLD IRON MINES OF THE NEW JERSEY HIGHLANDS**
- 21-7 28 Vega, Jenny*; Rddad, Larbi: **THE GENESIS OF THE NEW GALENA MISSISSIPPI VALLEY-TYPE PB-ZN ORE DEPOSIT: CONSTRAINTS FROM SULFUR ISOTOPE STUDIES**
- 21-8 29 Kolkas, Mossbah*: **PROSPECTS FOR CO₂ STORAGE IN THE SUBSURFACE OF THE BEEKMANTOWN GROUP (CAMBRIAN-ORDOVICIAN), WESTERN NEW YORK**

SESSION NO. 22

D6. Hydrogeology (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

- Booth #
- 22-1 30 Yager, Richard M.*; Soller, David; Haj, Adel; Kauffman, Leon J.; Reddy, James: **MAPS OF PROPERTIES OF QUATERNARY SEDIMENTS AND AQUIFERS IN THE GLACIATED CONTERMINOUS UNITED STATES**
- 22-2 31 Campbell, Seth W.*; Liljedahl, Anna; Douglas, Thomas A.; Bernsen, Steve; Gatesman, Tiffany; Gerbi, Christopher C.; Miner, Kimberley: **AN INTERDISCIPLINARY APPROACH TO ASSESS WATER RESOURCES ORIGINATING FROM GLACIATED WATERSHEDS**
- 22-3 32 Turnbach, Michelle; Lachhab, Ahmed*: **AN IMPROVED WQI EXPRESSION TO ASSESS HEADWATERS: APPLICATION TO FOUR PENN'S CREEK HEADWATER STREAMS**
- 22-4 33 Ordnung, Ryan*; Robbins, Gary A.; Maas, Kendra: **AN EVALUATION OF THE USE OF INDIGENOUS BACTERIA AS A GROUNDWATER TRACER IN FRACTURED BEDROCK**
- 22-5 34 Van Woert, Andrew Dutton; Lachhab, Ahmed*: **A TRANSVERSAL AND LONGITUDINAL MONITORING OF 4 HEADWATER STREAMS USING WATER QUALITY INDEX AND HYDROGEOCHEMICAL ANALYSES**

SESSION NO. 23

D7. Quaternary Geology (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

MONDAY, 19 MARCH 2018**MORNING
ORAL TECHNICAL SESSIONS****SESSION NO. 24*****T6. Emerging Contaminants in Fractured Bedrock Aquifers in the Northeast I***

8:00 AM, DoubleTree by Hilton Emerald I Ballroom

Jonathan J. Kim, Peter Ryan, Ed Romanowicz and Timothy Schroeder, Presiding

8:00 AM **INTRODUCTORY REMARKS**

24-1 8:20 AM Hu, Xindi C.*; Grandjean, Philippe; Laden, Francine; HART, Jaime E.; Yeung, Leo W.Y.; Sunderland, Elsie M.: **TAP WATER INTAKE OF POLY- AND PERFLUOROALKYL SUBSTANCES (PFAS) IN RELATION TO SERUM CONCENTRATIONS IN A NATIONWIDE PROSPECTIVE COHORT OF U.S. WOMEN**

24-2 8:40 AM DeSimone, David J.*: **PFOA SURFICIAL MAPPING IN BENNINGTON, VT**

24-3 9:00 AM Kim, Jonathan J.*; Ryan, Peter; Romanowicz, Edwin; Schroeder, Timothy; Belaval, Marcel; Boutt, David F.: **4D CHARACTERIZATION OF A FRACTURED BEDROCK AQUIFER CONTAMINATED WITH PFOA: BENNINGTON, VERMONT**

24-4 9:20 AM Schroeder, Timothy*; Kim, Jonathan J.; Ryan, Peter: **WIDESPREAD PFC CONTAMINATION BY AEROSOL DEPOSITION IN BENNINGTON, VERMONT: A LONG-TERM PROBLEM DUE TO RETENTION IN VADOSE ZONE SOILS**

24-5 9:40 AM Ryan, Peter C.*; Kim, Jonathan J.; Norris, Emmet; Allen, David: **TRACING GROUNDWATER FLOW BY INORGANIC HYDROGEOCHEMISTRY: A TOOL TO UNDERSTANDING PFOA MIGRATION IN A FRACTURED ROCK AQUIFER**

10:00 AM **BREAK**

24-6 10:15 AM Belaval, Marcel*; Boutt, David F.; Schroeder, Timothy; Ryan, Peter; Kim, Jonathan J.: **CHARACTERIZING THE GROUNDWATER-SURFACE WATER SYSTEM IN A PFOA-CONTAMINATED FRACTURED ROCK AQUIFER USING RADON AND STABLE ISOTOPES**

24-7 10:35 AM Romanowicz, Edwin*; Kim, Jonathan J.: **RELATIONSHIP BETWEEN FRACTURES, VERTICAL WATER FLOW AND GEOLOGIC STRUCTURES ON THE DISTRIBUTION OF PFOA IN DOMESTIC WELLS, BENNINGTON, VT**

24-8 10:55 AM Phillips, Stephanie N.*; Johnson, Carole D.; Robbins, Gary A.; Lane, John W.: **CHARACTERIZATION OF VERTICAL FLOW WITHIN BEDROCK AQUIFERS (STORRS, CONNECTICUT) USING DIFFERENT FLOW LOGGING METHODS**

24-9 11:15 AM Shanley, James B.*; Mack, Thomas J.; Levitt, Joseph P.: **GROUNDWATER AGE-TRACERS SHED LIGHT ON THE NATURE OF PFOA TRANSPORT IN THE N. BENNINGTON, VERMONT BEDROCK AQUIFER**

11:35 AM **DISCUSSION****SESSION NO. 25*****T8. Private Wells I: Current Challenges and Opportunities***

8:00 AM, DoubleTree by Hilton University Amphitheater

Sille Larsen, Liz Royer, Paul Susca, Patti Casey and Joseph D. Ayotte, Presiding

8:00 AM **INTRODUCTORY REMARKS**

25-1 8:05 AM Kane, Evan O.*: **LOCAL GOVERNMENT EFFORTS TO PROTECT PRIVATE WELL USERS IN WAKE COUNTY, NORTH CAROLINA**

25-2 8:25 AM DiPippo, Peter T.*: **"IS MY WATER SAFE TO DRINK?" REGULATING PRIVATE WELLS IN RHODE ISLAND**

Booth #	
23-1	35 Backhaus, Karl J.*: GEOLOGIC MAPPING OF THE BRONSON NORTH AND BRONSON SOUTH 7.5 MINUTE QUADRANGLES, BRANCH COUNTY, MICHIGAN
23-2	36 Orland, Elijah*; Amidon, William H.: USING REMOTE SENSING AND HIGH-RESOLUTION DIGITAL ELEVATION MODELS TO IDENTIFY POTENTIAL EROSIONAL HOTSPOTS ALONG RIVER CHANNELS DURING HIGH DISCHARGE STORM EVENTS
23-3	37 Ouimet, William B.*; McManimon, Caitlin T.; Scofield, Heather; Stansfield, Billy; Gonzales, Sean; Araya, Yulio; Lee, Benjamin; Nangle, Liam; Mastroluca, Fernanda; Baird, Kervelle; Farrell, Kyle; Rowan, Scott; Wilcox, Joseph: CHARACTERIZING HOLOCENE SEDIMENT ACCUMULATION AND HUMAN IMPACTS IN AN UPLAND KETTLE POND IN EASTERN CONNECTICUT
23-4	38 Bierly, Aaron D.*: THE PRE-HISTORIC AND HISTORIC GEOLOGIC IMPACTS OF ICE AND WATER WITHIN THE PA WILDS: A STUDY OF THE SURFICIAL DEPOSITS IN THE RICH VALLEY 7.5-MINUTE QUADRANGLE, CAMERON COUNTY, PENNSYLVANIA
23-5	39 Waring, Allison L.*; Wright, Stephen F.: SURFICIAL GEOLOGY OF THE JOINER BROOK AND WINOOSKI RIVER VALLEYS, BOLTON, VERMONT
23-6	40 Czyzyk, Katelyn A.*; Rossi, Amanda M.; Sarkis, Justin P.; Wright, Stephen F.: SURFICIAL GEOLOGIC MATERIALS AND INTERPRETATIONS IN THE LITTLE RIVER VALLEY, NORTHERN VERMONT
23-7	41 Brush, Jared*; Dewet, Andrew P.; de Wet, Gregory; Bradley, Raymond S.; Zhao, Boyang: SPATIAL ANALYSIS OF WATERSHEDS ASSOCIATED WITH THE EASTERN NORSE SETTLEMENT OF GREENLAND
23-8	42 McGinn, Gabriel*; Retelle, Michael J.; Werner, Alan: SEDIMENT TRAP ANALYSIS IN HIGH-ARCTIC LAKE LINNÉVATNET INDICATES A RECENT SHIFT IN THE ANNUAL HYDROLOGICAL REGIME
23-9	43 Rickerich, Sam F.*; Retelle, Michael J.; Corbett, Lee B.; Bierman, Paul R.: POSTGLACIAL RELATIVE SEA LEVEL HISTORY OF INGØYA, NORTHERN NORWAY
23-10	44 Caffee, William*; Schweinsberg, Avriel D.; Briner, Jason P.: ¹⁰BE DATING THE LAST DEGLACIATION OF THE CLEAR CREEK VALLEY, SAWATCH RANGE, CO
23-11	45 Sbarra, Christopher*; Briner, Jason P.; Lesnek, Alia J.; Baichtal, James F.: GLACIAL EROSION RATE FOR THE CORDILLERAN ICE SHEET IN SOUTHEAST ALASKA USING COSMOGENIC ¹⁰BE CONCENTRATIONS IN BEDROCK AND PERCHED BOULDERS
23-12	46 Roche, William*; Hanson, Lindley S.: TIMING OF FORMATION AND DURATION AND FREQUENCY OF OCCUPATION OF A BEAVER POND IN SOUTHWESTERN NEW HAMPSHIRE
23-13	47 Snyder-Fair, Alec*; Merritts, Dorothy J.; Walter, Robert C.; Snyder, Noah P.; Rahnis, Michael; Lewis, Evan: MULTI-DECADAL POST-DAM BREACH CHANNEL EVOLUTION ALONG BIG BEAVER CREEK, SOUTHEASTERN PENNSYLVANIA
23-14	48 Lewis, Logan*; Merritts, Dorothy J.; Walter, Robert C.; Snyder, Noah P.; Rahnis, Michael; Lewis, Evan: HISTORIC MILLPOND SEDIMENT STORAGE AND POST-DAM BREACH EROSION, CHIQUES CREEK WATERSHED, PENNSYLVANIA
23-15	49 Taylor, Judith*; Ouimet, William B.; Leslie, David: POST-GLACIAL STRATIGRAPHY AND SEDIMENT ACCUMULATION IN THE NORWALK AND SAUGATUCK RIVER ESTUARIES, WESTERN LONG ISLAND SOUND
23-16	50 McManimon, Caitlin T.*; Ouimet, William B.; Araya, Yulio; Lee, Benjamin; Nangle, Liam; Scofield, Heather; Stansfield, Billy; Mastroluca, Fernanda; Baird, Kervelle; Farrell, Kyle; Rowan, Scott; Wilcox, Joseph; Hren, Michael T.: A RECORD OF EARLY HOLOCENE WILDFIRES AND 18-20TH CENTURY HUMAN IMPACTS IN AN UPLAND WETLAND IN EASTERN CONNECTICUT

MONDAY, 19 MARCH

- 25-3 8:45 AM Vose, Sarah*: **VERMONT'S PRIVATE WELL PROGRAM-UPDATES FROM SAFEWATCH**
- 25-4 9:05 AM Lawlor, Kathrin*; Rardin, Laurie: **ARSENIC IN PRIVATE WELLS IN NEW HAMPSHIRE – AN OVERVIEW OF PAST, CURRENT AND FUTURE PRIVATE WELL OWNER ENGAGEMENT EFFORTS**
- 25-5 9:25 AM Johnson, Mark*; Rodgers, Kathy: **RCAP SOLUTIONS, INC.'S ROLE IMPROVING WATER QUALITY THROUGH TRAINING AND TECHNICAL ASSISTANCE TO PRIVATE WELL OWNERS IN THE NORTHEAST**
- 25-6 9:45 AM Zheng, Yan*; Flanagan, Sara V.; Yang, Qiang: **ARSENIC MITIGATION AMONG PRIVATE WELL HOUSEHOLDS IN MAINE AND NEW JERSEY: CHALLENGES AND OPPORTUNITIES**
- 10:15 AM **BREAK**
- 25-7 10:30 AM Berquist, Emily; Erickson, Melinda L.; Malenda, H.F.; Scher, Deanna; von Qualen, Frieda M.*: **PROTECTING PRIVATE WELL USERS' HEALTH: RESULTS FROM TWO STATEWIDE STUDIES**
- 25-8 10:50 AM Kane, Evan O.*; Potter, Andrew: **RADIONUCLIDES IN A FRACTURED GRANITE AQUIFER: REVIEW OF SEVEN YEARS OF TESTING OF PRIVATE WELLS**
- 25-9 11:10 AM Larsen, Sille*: **GEOSPATIAL ANALYSIS INVESTIGATING SPRINGS, SHALLOW WELLS AND DRILLED WELLS AS SOURCE OF BACTERIA IN PRIVATE DRINKING WATER**
- 25-10 11:30 AM Rigrod, Pierce*: **BE WELL INFORMED: A WEB TOOL FOR PRIVATE WELL OWNERS**
- 11:50 AM **CONCLUDING REMARKS**

SESSION NO. 26

T13. Deglaciation and Late-Glacial Climate Research, Northeastern U.S. and Eastern Canada

8:00 AM, DoubleTree by Hilton Diamond II Ballroom

Woodrow B. Thompson, P. Thompson Davis and Brian K. Fowler, Presiding

- 26-1 8:00 AM Fowler, Brian K.*: **POSSIBLE POST-LAURENTIDE ALPINE GLACIATION IN THE GREAT GULF CIRQUE, PRESIDENTIAL RANGE, NEW HAMPSHIRE - AN UPDATE**
- 26-2 8:20 AM Karig, Daniel E.*; Miller, Todd S.: **NORTHWARD SUB-GLACIAL DRAINAGE IN THE CAYUGA BASIN, CENTRAL NY, DURING THE MACKINAW INTERSTADE**
- 26-3 8:40 AM Hoke, Gregory D.*; Nair, Jennifer N.: **SPATIALLY VARIABLE GLACIAL EROSION REVEALED BY 10BE CONCENTRATIONS OF THE ORISKANY SANDSTONE**
- 26-4 9:00 AM Corbett, Lee B.*; Bierman, Paul R.; Shakun, Jeremy D.; Davis, P. Thompson; Goehring, Brent M.; Koester, Alexandria J.; Halsted, Christopher T.: **CONSTRAINING GLACIAL HISTORY AND PROCESS ON MOUNT MANSFIELD, VERMONT'S HIGHEST PEAK, WITH IN SITU COSMOGENIC ¹⁰BE AND ¹⁴C**
- 26-5 9:20 AM Halsted, Christopher T.*; Shakun, Jeremy D.; Bierman, Paul R.; Davis, P. Thompson; Corbett, Lee B.; Caffee, Marc W.: **MEASURING ¹⁰BE AGES FROM TOP TO BOTTOM IN FRANCONIA NOTCH, NH, TO CONSTRAIN LAURENTIDE ICE SHEET HISTORY**
- 26-6 9:40 AM Davis, P. Thompson*; Shakun, Jeremy D.; Bierman, Paul R.; Koester, Allie Jo; Corbett, Lee B.; Halsted, Christopher T.: **BOISE ROCK, NOT THE GLACIAL ERRATIC THAT WE THOUGHT, BUT RATHER PART OF THE LANDSLIDE HISTORY OF FRANCONIA NOTCH, NEW HAMPSHIRE**
- 10:00 AM **BREAK**
- 26-7 10:15 AM Fowler, Brian K.*; Barker, Gregory; Baker, Sarah W.: **POST-LAURENTIDE DEGLACIATION OF THE MIDDLE SWIFT RIVER BASIN, BARTLETT AND CHOCORUA 7.5-MIN. QUADRANGLES, NEW HAMPSHIRE**
- 26-8 10:35 AM Nesbitt, Ian M.*; Campbell, Seth W.; Arcone, Steven; Smith, Sean M.C.: **HOLOCENE SEDIMENT VOLUME DETERMINED**

BY GROUND-PENETRATING RADAR AND SIDESCAN SONAR IN MAINE, USA

- 26-9 10:55 AM Brouard, Etienne*; Lajeunesse, Patrick: **DEGLACIAL LANDSYSTEM IN FJORDS OF NORTHEASTERN BAFFIN ISLAND**

SESSION NO. 27

T20. SEPM Symposium: The Devonian Terrestrial Realm I: Current Perspectives and New Research

8:20 AM, DoubleTree by Hilton Diamond I Ballroom

Charles Ver Straeten, William E. Stein and Rose-Anna Behr, Presiding

- 27-1 8:20 AM Ver Straeten, Charles*; Stein, William E.; Behr, Rose-Anna: **DEVONIAN TERRESTRIAL SYSTEMS, EASTERN NORTH AMERICA: WHERE WE'RE AT; WHAT IS NEXT?**
- 27-2 8:40 AM Gibling, Martin R.*: **EVOLVING FLUVIAL LANDSCAPES OF THE DEVONIAN: THE CO-EVOLUTION OF LANDFORMS, PLANTS, AND ANIMALS**
- 27-3 9:00 AM Terry, Dennis O.*: **PALEOSOLS OF THE CATSKILL CLASTIC WEDGE: IDENTIFICATION, INTERPRETATION, AND APPLICATION**
- 27-4 9:20 AM Hasiotis, Stephen T.*: **ASSESSMENT OF CONTINENTAL TRACE FOSSILS IN THE FRASNIAN-FAMENNIAN CATSKILL FORMATION, NORTH-CENTRAL PENNSYLVANIA: INITIATION OF DEVONIAN ECOSYSTEM ENGINEERING BY SOIL BIOTAS**
- 27-5 9:40 AM Terry, Dennis O.*; Stein, William E.: **PALEOSOL MICROMORPHOLOGY OF THE MIDDLE DEVONIAN CAIRO QUARRY FOSSIL FOREST**
- 10:00 AM **BREAK**
- 27-6 10:15 AM Stein, William E.*: **MIDDLE DEVONIAN TERRESTRIAL ECOSYSTEM IN THE CATSKILL REGION: EVIDENCE FROM TREE-SIZE ROOTING TRACE FOSSILS**
- 27-7 10:35 AM Gensel, Patricia*: **THE DEVONIAN AS A TIME OF MAJOR EVOLUTIONARY INNOVATION AND DIVERSIFICATION IN PLANTS- NEW DEVELOPMENTS**
- 27-8 10:55 AM Scheckler, Stephen*: **FOREST AND WETLAND EXPANSION IN THE MID TO LATE DEVONIAN**
- 27-9 11:15 AM Gastaldo, Robert A.*: **RELATIONSHIPS BETWEEN EMSIAN PALEOSOLS, PARA- AND ALLOCHTHONOUS PLANT ASSEMBLAGES, AND MACROINVERTEBRATE-AND-TRACE FOSSIL ASSEMBLAGES IN THE TROUT VALLEY FORMATION, MAINE**
- 27-10 11:35 AM Chamberlain, John A.*; Chamberlain, Rebecca B.: **ARCHANODON CATSKILLENSIS: HABITS, HABITATS, AND HISTORY**
- 11:55 AM **DISCUSSION**

SESSION NO. 28

T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits I: A Session Honoring the Work of Bruce Selleck

8:00 AM, DoubleTree by Hilton Emerald II Ballroom

Timothy Grover, Greg J. Walsh, Michael L. Williams, Sean P. Regan, Marian Lupulescu and Peter Valley, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 28-1 8:05 AM Makovsky, Kyle A.*; Samson, Scott D.; Moecher, David P.: **EVALUATING ZIRCON THERMOMETRY USING HIGH-ZR GRENVILLE GRANITOIDS**
- 28-2 8:25 AM Markley, Michelle*; Dunn, Steven R.; Jercinovic, Michael J.; Peck, William H.; Williams, Michael L.: **MONAZITE U-TH-PB GEOCHRONOLOGY OF THE CENTRAL METASEDIMENTARY BELT BOUNDARY ZONE (CMBBZ), ONTARIO CANADA**

- 28-3 8:45 AM Gervais, Felix*; Ranalli, Giorgio; Jannin, Sophie: **IS TOPOGRAPHIC GRADIENT THE ONLY DRIVING FORCE FOR CHANNEL FLOW IN LARGE-HOT OROGENS?**
- 28-4 9:05 AM Ratcliffe, N.M.*; Dickin, A.P.: **"ADIRONDACK" LAURENTIAN BASEMENT OF THE NORTHERN APPALACHIANS: STRATIGRAPHY, PLUTONISM, GEOCHEMISTRY, AND TECTONICS**
- 28-5 9:25 AM Grover, T.W.*; Williams, M.L.; Smith, Ashley; Pless, Claire R.; Suarez, Kaitlyn; Baurle, Eric: **KINEMATIC, METAMORPHIC, AND GEOCHRONOLOGIC CONSTRAINTS ON INTRUSION, DEFORMATION, AND METAMORPHISM SOUTHEAST OF DACY CLEARING, SHELVING ROCK QUADRANGLE, EASTERN ADIRONDACK MOUNTAINS, NEW YORK**
- 28-6 9:45 AM Williams, Michael L.*; Grover, Timothy W.; Jercinovic, Michael J.; Pless, Claire R.; Regan, Sean P.; Suarez, Kaitlyn: **CONSTRAINING THE TIMING AND CHARACTER OF EXTREME CRUSTAL MELTING IN THE ADIRONDACK MOUNTAINS USING MULTISCALE COMPOSITIONAL MAPPING AND IN-SITU GEOCHRONOLOGY**
- 10:05 AM **BREAK**
- 28-7 10:20 AM Baird, Graham B.*: **DUCTILE DEFORMATION OF THE DIANA COMPLEX ALONG THE SOUTH-CENTRAL CARTHAGE-COLTON MYLONITE ZONE: RECONCILING NORTHWEST OVER SOUTHEAST OBLIQUE-SINISTRAL THRUST KINEMATICS WITH TECTONIC COLLAPSE**
- 28-8 10:40 AM Regan, Sean P.*; Toft, Meghan E.; Walsh, Gregory J.; Williams, M.L.; McAleer, R.; Merschat, Arthur; Grover, Timothy; Suarez, Kaitlyn; Baird, Graham; Guevara, Victor: **DETACHMENT, ORE MINERALIZATION, AND PROGRESSIVE UPLIFT OF THE MARCY MASSIF DURING THE GRENVILLE OROGENIC CYCLE, ADIRONDACK MOUNTAINS, NY**
- 28-9 11:00 AM Turner, Brian B.*: **A NEW SYNTHESIS: CENTRAL TO SOUTHEASTERN ADIRONDACK MOUNTAINS, NEW YORK**

SESSION NO. 29**T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England I: A Session Honoring the Work of Jo Laird and Peter J. Thompson**

8:00 AM, DoubleTree by Hilton Emerald III Ballroom

Ian W. Honsberger, Wallace A. Bothner and Peter Robinson, Presiding

- 29-1 8:00 AM Eusden, J. Dykstra*; Hillenbrand, Ian W.; Merrill, Thorn K.; Niiler, Kurt A.; O'Sullivan, Paul B.; Wheatcroft, Audrey: **THE "ME-NH" TRANSECT FROM THE MIGMATIZED CENTRAL MAINE BELT IN WESTERN MAINE TO THE BRONSON HILL ANTICLINORIUM IN NORTHERN NEW HAMPSHIRE**
- 29-2 8:20 AM Thompson, Peter J.*; Strauss, Justin V.: **REEVALUATION AFTER 50 YEARS OF NAPPES IN WESTERN NEW HAMPSHIRE: ARE THE SKITCHEWAUG AND CORNISH NAPPES ONE AND THE SAME?**
- 29-3 8:40 AM Hollocher, Kurt*; Robinson, Peter; Lucas, Benjamin; Mabee, Stephen B.: **THE PRESCOTT PLUTONIC COMPLEX OF CENTRAL MASSACHUSETTS: GEOCHEMISTRY AND NEW INTERPRETATIONS RECONCILING AGE DATES AND CONTACT RELATIONS**
- 29-4 9:00 AM Robinson, Peter*; Peterson, Virginia L.: **THE MAIN BODY OF MONSON GNEISS, A MAJOR QUABOAGIAN (370-350 MA) NORTH-DIRECTED FOLD NAPPE: SECRETS OF ITS ROOT ZONE IN SOUTHERN MASSACHUSETTS**
- 29-5 9:20 AM Thompson, M.D.*: **STRATIGRAPHY AND STRUCTURE OF THE CAMBRIDGE FORMATION, BOSTON BASIN, MASSACHUSETTS: NEWS FROM UNDERGROUND**
- 9:40 AM **ACKNOWLEDGMENT OF PETER THOMPSON**
- 9:50 AM **ACKNOWLEDGMENT OF JO LAIRD**
- 10:00 AM **BREAK**
- 29-6 10:15 AM Van Baalen, M.R.*: **BENITOITE AND BLUESCHIST: KEEPING UP WITH JO LAIRD**

- 29-7 10:35 AM Johnson, Joel E.*: **SERPENTINIZATION IN THE MODERN OCEAN: A NORTHERN NEW ENGLAND PERSPECTIVE**
- 29-8 10:55 AM Fagan, T.J.*; Endo, Y.: **FROM METAMORPHISM IN NEW ENGLAND TO RED-OX REACTIONS IN THE SOLAR NEBULA: A LONG AND WINDING ROAD THROUGH REACTION SPACE**
- 29-9 11:15 AM Honsberger, Ian W.*: **AMPHIBOLES AND ISOTOPES BELOW AND ABOVE THE PROSPECT ROCK THRUST, CENTRAL AND NORTHERN VERMONT: INTERCONNECTED AND/OR DISCONNECTED HISTORIES OF MAFIC SUBDUCTION ZONE ROCKS?**
- 29-10 11:35 AM Schumacher, John C.*; Robinson, Peter: **REVISITING ALUMINOUS ENCLAVES IN GEDRITE-CORDIERITE-GNEISS FROM SOUTHWESTERN NEW HAMPSHIRE, USA**

MORNING POSTER TECHNICAL SESSIONS

SESSION NO. 30**T2. Applications of Geoscience to Government and Community Issues (Posters)**

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

Booth #

- 30-1 1 Federico, Nicholas*: **ROAD SALT RUNOFF AND ACCUMULATION IN FRESHWATER MARSH ECOSYSTEM AND ITS POTENTIAL CONSEQUENCES WITH IRON CORROSION OF SUBMERGED RAILROAD TRACKS**
- 30-2 2 Rossi, Amanda M.*; Reeder, Grant; Czyzyk, Katelyn A.; Williamson, Landon; Perdrial, Nicolas: **SOIL PB BIOAVAILABILITY AND DISTRIBUTION IN BURLINGTON, VERMONT: TESTING AND ASSESSMENT OF A GEOSPATIAL PREDICTIVE MODEL**
- 30-3 3 Ruggiero, Joseph*; Cascino, Lucian; Gourley, Jonathan; Geiss, Christoph: **X-RAY DIFFRACTION ANALYSES OF SULFATE MINERALS RESPONSIBLE FOR CRUMBLING CONCRETE IN NORTHEASTERN CONNECTICUT**
- 30-4 4 Thomas, Margaret A.*: **PYRRHOTITE IN CRUMBLING CONCRETE FOUNDATIONS: THE LATEST SOCIETAL USE FOR MODERN GEOLOGIC MAPPING IN CONNECTICUT**
- 30-5 5 Dundas, Erin*; Ehlers, Alix; Lee, Jesse; Titsworth, Kyle; Weiss, Hannah; Webb, Laura E.: **USE OF GROUND-PENETRATING RADAR AND ELECTROMAGNETIC INDUCTION PROFILING TO IMAGE A BURIED REVOLUTIONARY WAR TRENCH AT CHIMNEY POINT, ADDISON COUNTY, VERMONT**
- 30-6 6 Pehlert, Lydia*; Lutz, Tim; Bosbyshell, Howell: **VISUALIZING EARTHQUAKE DATA TO IMPROVE COMMUNICATION ABOUT SEISMIC HAZARDS**
- 30-7 7 DeSimone, David J.*: **PFOA & SURFICIAL MAPPING - CONTRASTS BETWEEN VT & NY CASES**

SESSION NO. 31**T27. New Perspectives on the Evolution of Brittle and Ductile Fault Zones: A Session Honoring The Work of Robert D. Jacobi (Posters)**

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

Booth #

- 31-1 8 Fattaruso, Laura*; Cooke, Michele: **MODELING FRACTURE COALESCENCE USING GROWTH BY OPTIMIZATION OF WORK (GROW)**
- 31-2 9 Haverfield, Cheyenne*; Farrell, James; Crespi, Jean: **TESTING THE GAUSS METHOD ON HETEROGENEOUS FAULT POPULATIONS IN THE HARTFORD-DEERFIELD BASIN**
- 31-3 10 Cooper Boemmels, Jennifer*; Crespi, Jean: **ASSESSING COMPATIBILITY OF DIKE-EMPLACEMENT AND FAULT-SLIP**

PALEOSTRESS CONDITIONS WITHIN THE NEW ENGLAND-QUEBEC IGNEOUS PROVINCE

- 31-4 11 Merson, Matthew Q.*; Klepeis, Keith A.: **EVIDENCE OF MULTIPLE SLIP EVENTS DURING FORMATION OF THE CHAMPLAIN THRUST FAULT ZONE, BURLINGTON, VERMONT**

SESSION NO. 32

T30. Petrologic Insights on Modern and Ancient Plate Margins: The Volcanic, Plutonic, and Metamorphic Records (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | | Booth # | |
|-------|---------|--|
| 32-1 | 12 | Niiler, Kurt A.*; Eusden, J. Dykstra; Merrill, Thorn K.; O'Sullivan, Paul B.: NEW GEOCHRONOLOGY AND BEDROCK MAPPING OF THE SOUTHERN PORTION OF THE 7.5 MINUTE MT. CRESCENT QUADRANGLE, NORTHERN NEW HAMPSHIRE |
| 32-2 | 13 | White, Chris E.*; Barr, Sandra M.; van Rooyen, Deanne; Shute, Jonathan M.; McCarron, Travis; Sombini dos Santos, Gabriel: HOW GEOLOGICAL MAPPING, PETROLOGICAL STUDIES, AND U-PB (ZIRCON) DATING LED TO RECOGNITION OF SEPARATE NEOPROTEROZOIC, CAMBRIAN, ORDOVICIAN, AND SILURIAN CONVERGENT MARGIN MAGMATISM IN WESTERN CAPE BRETON ISLAND, NOVA SCOTIA, CANADA |
| 32-3 | 14 | Sauvé, Giselle*; Bogatu, Adina; Tremblay, Alain; Meshi, Avni; Bédard, Jean H.: EXTENSION AND MAGMATISM IN THE MIRDITA OPHIOLITE, ALBANIA: IMPLICATIONS FOR THE MUNELLA MASSIVE SULFIDES DEPOSIT |
| 32-4 | 15 | Lowry, Sarah*; Mana, Sara: INTERPRETING THE PROCESS OF FRACTIONAL CRYSTALLIZATION OF GELAI VOLCANO OVER TIME |
| 32-5 | 16 | Peirce, Shelley*; Mana, Sara: FRACTIONAL CRYSTALLIZATION HISTORY RECORDED BY THE LAVA FLOWS OF KETUMBEINE VOLCANO, NORTH TANZANIA |
| 32-6 | 17 | Weaver, Alexandria*; Srogi, LeeAnn; Lutz, Tim; Pollock, Meagen: USING THE MELTS ALGORITHM TO MODEL MAGMA CRYSTALLIZATION WITHIN AN UPPER-CRUST PLUMBING SYSTEM IN THE WESTERN NEWARK BASIN, CENTRAL ATLANTIC MAGMATIC PROVINCE, USA |
| 32-7 | 18 | Shirley, Benjamin B.*; Kerrigan, Ryan J.: INVESTIGATING THE ORIGIN OF PEGMATITE DIKES IN UNIONVILLE, PENNSYLVANIA AND THE GEOCHEMICAL INTERACTIONS WITH SURROUNDING SERPENTINITES |
| 32-8 | 19 | Westerman, David S.*; Eddy, Christopher; Del Avelano, Adele; Lortie, Kirstin: THE NORTHFIELD INTRUSIVE COMPLEX IN CENTRAL VERMONT: POST-TACONIC TRONDHEJMITIC EXTENSIONAL MAGMATISM |
| 32-9 | 20 | Aungst, Alison; Budnovitch, Joseph*; Esrey, Steven; Srogi, LeeAnn; Lutz, Tim; Pollock, Meagen: EVALUATING THE CONSTRUCTION OF AN UPPER-CRUSTAL PLUMBING SYSTEM BY COMPARING ROCK AND MINERAL COMPOSITIONS IN A BASALT AND UNDERLYING PLUTON CHILL MARGINS |
| 32-10 | 21 | Fenlon, Colleen M.*; Patwardhan, Kaustubh: CRYSTAL SIZE DISTRIBUTION (CSD) ANALYSIS OF THE DEVIL'S THRONE INTRUSION, CERRILLOS HILLS LACCOLITH, NEW MEXICO |
| 32-11 | 22 | Wolf, Olivia N.*; Kerrigan, Ryan J.: SERPENTINIZATION OF THE UNIONVILLE SERPENTINE BARRENS: A GEOCHEMICAL AND PETROGRAPHIC STUDY |
| 32-12 | 23 | Kavanagh-Lepage, Charles*; Gervais, Félix; Moukhsil, Abdelali: PETROGENETIC STUDY OF RUTILE IN GRENVILLIAN ECLOGITES OF THE MANICOUAGAN IMBRICATE ZONE, NORTHEAST GRENVILLE PROVINCE |
| 32-13 | 24 | Broadwell, Kirkland*; Caddick, Mark: EVIDENCE FOR TACONIC AND ACADIAN METAMORPHISM IN THE SMITH RIVER ALLOCHTHON: OUTCROP AND THIN SECTION SCALE OBSERVATIONS AND CONSTRAINTS |
| 32-14 | 25 | VanDusen, Anna*; Johannesen, Katharine; Pennell, Kaylee; Ianno, Adam J.; Zucker, Samuel L.: THERMAL EVOLUTION |

OF ULTRAMAFIC BODIES IN THE EASTERN BLUE RIDGE MOUNTAINS, NC

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|-------|----|---|
| 32-15 | 26 | Pennell, Kaylee*; Johannesen, Katharine; VanDusen, Anna; Ianno, Adam; Zucker, Samuel L.: PETROLOGIC ANALYSIS AND REMAPPING OF THE TODD ULTRAMAFIC BODY IN THE EASTERN BLUE RIDGE MOUNTAINS, NC |
| 32-16 | 27 | MacLeod, Douglas R.*; Pearson, David M.: ZIRCON U-PB CONSTRAINTS ON THE AGES AND OBSCURED BOUNDARIES OF TERRANES IN THE WESTERN NORTH AMERICAN CORDILLERA: CENTRAL GNEISS COMPLEX, BRITISH COLUMBIA |
| 32-17 | 28 | Pedreira Perez, Rocio*; Daoudene, Yannick; Tremblay, Alain; Bandyayera, Daniel: STRUCTURAL CHARACTERIZATION AND TECTONIC SETTING OF THE NEMISCAU SUBPROVINCE, ARCHEAN SUPERIOR PROVINCE, CANADA: PRELIMINARY RESULTS AND INTERPRETATIONS |

SESSION NO. 33

T33. Lake Research and Monitoring Networks in the Northeast (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | | Booth # | |
|------|---------|--|
| 33-1 | 29 | Halfman, John D.*; Cleckner, Lisa B.; Massey, Trevor; Razavi, Roxanne: BLUE GREEN ALGAE (BGA) AND HABS IN THE FINGER LAKES, NY, USA |
| 33-2 | 30 | Bradt, Serena*; Halfman, John D.; Andrews, Joshua; Dumitriu, Ileana; Spacher, Peter: BLUE GREEN ALGAE AND MACROPHYTE SURVEILLANCE BY DRONES (UAVS) IN OWASCO LAKE, NY |
| 33-3 | 31 | Doner, Lisa A.*: UNDER ICE TRANSLATION OF WINTER SURFACE CONDITIONS TO DEEP LAKE STRATA |
| 33-4 | 32 | Lee, Lydia*; Follensbee, Timothy; Gorman, Jason; Clark, Zack; Athan, Robert: SEDIMENT RESUSPENSION AND COMPLIANCE MONITORING FOR THE NYPA/VELCO PV-20 SUBMARINE CABLE REPLACEMENT PROJECT |
| 33-5 | 33 | Knecht, Richard Joseph*; Wilkinson, Ryan; Kots, Andrew J.: THE STRUCTURE, LIMITS, AND DRIVERS OF DAPHNID DIVERSITY: UNDERSTANDING THE PARADOX OF AZISCOHOS LAKE, MAINE |
| 33-6 | 34 | Tallent, Leah*; Newton, Robert M.; Anderson, Marc R.: RECOVERY OF LAKES IN SOUTH CENTRAL MAINE FROM ACIDIC DEPOSITION |

SESSION NO. 34

D8. Environmental Geoscience (Posters)

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | | Booth # | |
|------|---------|--|
| 34-1 | 35 | Smith, Rebeka*; Badamo, Thomas; Barclay, David J.; Crupar, Deborah; Weltner, Rob: WATER QUALITY MONITORING IN THE SOUTH SHORE ESTUARIES OF LONG ISLAND, NEW YORK |
| 34-2 | 36 | Benincasa, Santina*: SHORELINE EROSION, BIODIVERSITY LOSS, AND SALT MARSH DEPLETION IN JAMAICA BAY, NY AFTER HURRICANE SANDY |
| 34-3 | 37 | Burgos, Madison; Cruz, Adois*; Diarra, Aimira; Espino, Analise; Johnson, Kaia; Melendez, Melina; Rahman, Aziza: DISTRIBUTION OF ANIMALS IN DIFFERENT VEGETATIVE HABITATS WITHIN PIERMONT MARSH, NY |
| 34-4 | 38 | Bjornton, John; Cruz, Dominick; Cruz, Esmeralda; Henry, Melody; Liang, Bing; Lucero, Keylen*; Martinez, Anjelle; Mittiga, Andrew; Raya, Gissel; Saad, Batoul; Toure, Salimata; Valentin, Stephanie: ECO-FRIENDLY HABITAT RESTORATION: USING PHOTO-DEPRIVATION TO ERADICATE PHRAGMITES AUSTRALIS AND TO PROMOTE NATIVE PLANT SUCCESSION IN PIERMONT MARSH, NY, CONTINUED |

- 34-5 39 Gutches, Kristina M.*; Jin, Li; Kelleher, Christa; Ledford, Sarah H.; Lautz, Laura K.; Lu, Zunli: **MODELING FUTURE NITROGEN DYNAMICS IN CHESAPEAKE BAY HEADWATERS**
- 34-6 40 Henry, Gary L.*; Bresette, Evan C.: **SEASONAL TRENDS IN SPECIFIC CONDUCTANCE IN A SMALL TRIBUTARY WATERSHED OF LAKE CHAMPLAIN**
- 34-7 41 Howard, Eric*; Plattel, Richard; Judge, Elizabeth; Yekanifard, Nazila; Mahmoud, Omar; DaSilva, Michael; Davi, Nicole; Becker, Martin A.: **A PRELIMINARY STUDY OF MICROPLASTICS AND MICROFIBERS AT THE MOLLY ANN BROOK, NJ**
- 34-8 42 Hanley, Autumn D.*; Wolf, Scott Q.; Bell, Matthew; Khalequzzaman, Md.: **EVALUATING THE WATER QUALITY INDEX OF LICK RUN, CENTRE COUNTY, PENNSYLVANIA**
- 34-9 43 Khalequzzaman, Md.; Bell, Matthew; Hanley, Autumn D.; Wolf, Scott Q.*: **FACTORS CONTROLLING VARIATIONS IN WATER TEMPERATURE OF KELLER RESERVOIR AND RELATED STREAMS WITHIN MCELHATTAN CREEK WATERSHED, CLINTON COUNTY, PA**
- 34-10 44 Lachhab, Ahmed; Khalequzzaman, Md.*; Bell, Matthew; Wolf, Scott Q.; Sharer, Michael: **APPLICATION OF GPR, GEOSPATIAL AND GEOCHEMICAL TECHNIQUES TO DETERMINE SEDIMENT ORIGIN AND ACCUMULATION PATTERNS IN KELLER RESERVOIR, CLINTON COUNTY, PA**
- 34-11 45 Edenborn, H.M.*; Turner, G.R.: **OBSERVATIONS OF PERENNIAL ICE IN ALTERED GEOLOGIC ENVIRONMENTS IN PENNSYLVANIA**
- 34-12 46 Floyd, Jason D.*; Rea, Timothy: **IMPORTANCE OF A HISTORICAL USE ASSESSMENT FOR THE ENVIRONMENTAL CHARACTERIZATION AND REMEDIATION OF THE OLDEST OPERATING RETAIL GAS STATION IN THE UNITED STATES, REIGHARD'S GAS STATION, LOCATED IN ALTOONA, BLAIR COUNTY, PENNSYLVANIA**
- 34-13 47 Khalequzzaman, Md.; Bell, Matthew; Wolf, Scott Q.*; Hanley, Autumn D.: **IMPACTS ON NUTRIENTS AND ORGANIC CONTENT ON WATER QUALITY INDEX OF THE HEADWATER SYSTEM FEEDING THE LOCK HAVEN PUBLIC DRINKING WATER SUPPLY, CLINTON COUNTY, PA**
- 34-14 48 Kirby, Carl S.*; Scales, Charles A.: **CHALLENGES USING THE PENNSYLVANIA IMPAIRED AND NON-IMPAIRED STREAMS GIS COVERAGE**
- 34-15 49 Steinhäuser, D.J.*; Venn, Cynthia; Rier, Steven: **DIATOMS AS WATER QUALITY INDICATORS IN THE HEADWATERS OF FISHING CREEK (COLUMBIA AND SULLIVAN COUNTIES), PENNSYLVANIA**
- 34-16 50 Ferullo, Robert M.*; Jones, Alec S.: **QUANTITATIVE ANALYSIS OF IMMEDIATE ENVIRONMENTAL PROBLEMS USING INEXPENSIVE DRONE TECHNOLOGY**
- 34-17 51 Fletcher, Frank W.*; Kovach, Jim T.; Inners, Jon D.; Fluhr, George J.: **THE GREAT SHOHOLA TRAIN WRECK: HOW TOPOGRAPHY AND GEOLOGY CONTRIBUTED TO THE UNFOLDING OF A CIVIL WAR TRAGEDY**
- 34-18 52 Siebert, Erin*: **EFFECTS OF FERTILIZER APPLICATION ON SOIL MOISTURE, GROUNDWATER, AND SURFACE WATER**
- 34-19 53 Monteverde, Stephen*; Chowdhury, Shafiul; Fernandez, Stephanie; Lorenzo, Taylor: **THE IMPACT OF ECOFRIENDLY AGRICULTURAL LAND MANAGEMENT ON THE WATER QUALITY OF THE LOWER ESOPUS CREEK, NEW YORK**
- 34-20 54 Jain, Jinesh C.*; Edenborn, Harry M.; Gougueuel, Christian L.; Bhatt, Chet R.; Hartzler, Daniel; McIntyre, Dustin L.: **A NOVEL APPROACH FOR TRACKING CO₂ LEAKAGE INTO GROUNDWATER USING CARBONATE MINERAL DISSOLUTION**
- 34-21 55 Kennedy, Steven J.*; Croze, Joseph Ryan; Chakraborty, Sourav; Oyewumi, Oluyinka: **ASSESSING RELEASE OF POLYCHLORINATED BIPHENYLS (PCBS) AND OTHER CHEMICAL ELEMENTS ALONG THE UPPER SEGMENT OF HOUSATONIC RIVER, MASSACHUSETTS**
- 34-22 56 Battifarano, Oriana K.*; Rice, Mikaela; Hon, Rudi; Besancon, James; Schaudt, Barry: **EXPERIMENTAL OBSERVATION OF DISSOLVED DEICER TRANSPORT IN THE SUBSURFACE**
- 34-23 57 Elkassas, Sabrina M.*; Choi, Jessica; Pérez-Rodríguez, Ileana: **ENRICHMENT AND ISOLATION OF CHEMOSYNTHETIC BACTERIA FOR BIOREMEDIATION OF ASBESTOS HAZARDS**
- 34-24 58 Nazelrod, Tristan Gank*; Allen, Phillip P.; Flood, Jonathan: **WHAT FLOWS THROUGH IT? MONITORING, IDENTIFYING AND TRACKING THE GEOCHEMICAL CHARACTERISTICS OF DEEP CREEK LAKE, WESTERN MARYLAND**
- 34-25 59 Lama Sherpa, Tshering*; Katz, Sarah A.; Rodbell, Donald: **A 700,000 YR RECORD OF GLACIAL FLOUR FLUX TO LAKE JUNIN, PERU**
- 34-26 60 Sullivan, Troy*; Allen, Douglas: **ANTHROPOGENIC FOOTPRINT OF TRACE METAL CONTAMINATION IN PALMER COVE PARK, SALEM MASSACHUSETTS**
- 34-27 61 Barrett, Lauren*; Hallen, Christopher P.; Venn, Cynthia: **ASSESSMENT OF PASSIVE AND TREATMENT SYSTEMS IN SCHUYLKILL COUNTY, PENNSYLVANIA**
- 34-28 62 Lenker, Mitchell R.*; Venn, Cynthia; Hallen, Christopher P.: **BIOGEOCHEMICAL ASSESSMENT OF ABANDONED MINE DISCHARGES ON WICONISCO CREEK, SCHUYLKILL AND DAUPHIN COUNTIES, PENNSYLVANIA**
- 34-29 63 Vice, Daniel H.*: **TWO SANDS FORENSIC**
- 34-30 64 Benimoff, Alan I.*: **SERPENTINITE BRECCIA ASSOCIATED WITH THE STATEN ISLAND SERPENTINITE: A PALEO-DEBRIS FLOW DEPOSIT**
- 34-31 65 Barakat, Michelle*: **WETLAND INVESTIGATION AND RESTORATION AT CAMEL'S HUMP FARM BETHLEHEM, PA**
- 34-32 66 Wixom, Sonja Leigh*: **LAKE OR WETLAND; SEMANTICS VS. MANAGEMENT PRACTICES**
- 34-33 67 Maxwell, Marie*; Hatch, Christine E.; Kanamaru, Kinuyo; Neill, Chris: **TIME ZERO: BASELINE SOIL ANALYSIS AT TIDMARSH, FROM CRANBERRY FARM TO FUTURE WETLAND**
- 34-34 68 Callanan, Jennifer R.*; Harris, Jonathan; Scott, Jeremy; DellaBella, Allison; Pope, Gregory A.; Hazen, Matthew; DaSilva, Michael: **INVESTIGATION OF SOIL CHEMISTRY ONE YEAR AFTER THE 16 MILE FIRE, DELAWARE STATE FOREST, PA**
- 34-35 69 Pope, Gregory A.*; Darley, Jason; Callanan, Jennifer R.; Hazen, Matthew: **TRACE ELEMENT FINGERPRINTS OF WILDFIRE IN THE PEDOSPHERE: RESULTS FROM THE 16-MILE FIRE, PENNSYLVANIA**

AFTERNOON ORAL TECHNICAL SESSIONS

SESSION NO. 35

T6. Emerging Contaminants in Fractured Bedrock Aquifers in the Northeast II

1:30 PM, DoubleTree by Hilton Emerald I Ballroom

Jonathan J. Kim, Peter Ryan, Ed Romanowicz and Timothy Schroeder, Presiding

- 35-1 1:30 PM Johnson, Jason D.*: **GROUNDWATER IN HOOSICK FALLS AND PETERSBURGH, NY; A SUMMARY OF PFAS DATA AND THE CURRENT STATUS OF NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S REMEDIAL ACTIVITIES**
- 35-2 1:50 PM Heisig, Paul M.*; Williams, John H.; Randall, Allan D.: **HYDROGEOLOGIC CHARACTERIZATION OF THE HOOSICK FALLS WELLFIELD AQUIFER, HOOSICK FALLS, NY**
- 35-3 2:10 PM Williams, John H.*; Heisig, Paul M.: **GROUNDWATER-LEVEL ANALYSIS FOR AQUIFER FRAMEWORK AND PROPERTIES IN HOOSIC RIVER VALLEY NEAR HOOSICK FALLS**

35-4 2:30 PM DeSimone, David J.*: **PFOA SURFICIAL MAPPING IN HOOSICK FALLS, NY**

SESSION NO. 36

T8. Private Wells II: Current Challenges and Opportunities

1:30 PM, DoubleTree by Hilton University Amphitheater

Sille Larsen, Liz Royer, Paul Susca, Patti Casey and Joseph D. Ayotte, Presiding

1:30 PM **INTRODUCTORY REMARKS**

36-1 1:35 PM Levitt, Joseph P.*; Degnan, James R.; Flanagan, Sarah M.; Jurgens, Bryant C.: **ARSENIC VARIABILITY AND GEOCHEMICAL TIME SERIES AT A DOMESTIC BEDROCK WELL IN SOUTHEAST NEW HAMPSHIRE**

36-2 1:55 PM Lombard, Melissa A.*: **STATISTICAL MODELING OF ARSENIC IN GROUNDWATER TO SUPPORT HUMAN HEALTH STUDIES**

36-3 2:15 PM Brown, Craig J.*; Stackelberg, Paul E.; Erickson, Melinda L.; Nolan, Bernard T.: **PREDICTING PH AND REDOX IN THE GLACIAL AQUIFER SYSTEM**

36-4 2:35 PM Higgins, Mark*; Robbins, Gary A.; Metcalf, Meredith J.: **IMPROVING WATER QUALITY DATA FROM FRACTURED BEDROCK WELLS IN CONSIDERATION OF CONCENTRATION AVERAGING**

36-5 2:55 PM Ayotte, Joseph D.; Belaval, Marcel*; Carlisle, Ian; Gordon, Ryan P.; Bryce, Julia: **GROUND WATER AND PUBLIC HEALTH: A NEW SHALLOW WELL TECHNOLOGY TO PROVIDE SAFE DRINKING WATER FOR PRIVATE WELLS**

SESSION NO. 37

T14. Glacial Lakes: New Understandings of Their Extent, History, and Internal Dynamics

1:30 PM, DoubleTree by Hilton Diamond II Ballroom

John A. Rayburn and Stephen F. Wright, Presiding

1:30 PM **INTRODUCTORY REMARKS**

37-1 1:35 PM Morissette, Antoine*; Hetu, Bernard; Lajeunesse, Patrick: **THE IMPACT OF GLACIAL LAKE MADAWASKA ON THE OPENING OF APPALACHIAN ICE COMPLEX**

37-2 1:55 PM Wright, Stephen F.*: **THE EVOLUTION OF GLACIAL LAKES IN THE WINOOSKI RIVER VALLEY, VERMONT**

37-3 2:15 PM Dunn, Richard K.*; Morin, Joel; Hermanson, Tyler: **A PROGLACIAL ICE MARGIN DEPOSITIONAL SEQUENCE MARKED BY SEDIMENTATION IN A GROUNDING ZONE WEDGE AND BY REMOBILIZATION OF BASIN SLOPES**

37-4 2:35 PM Gonda, Nicholas J.*; Rayburn, John A.: **CROSS-CORRELATION OF GLACIAL LAKE VERMONT VARVE SECTIONS IN NEW YORK AND VERMONT**

37-5 2:55 PM Nolan, Karen*; Cristiano, Jennifer; Mundi, Claire; Casarella, Daniel; Wall, Bryce; Hudziak, Samuel Xavier; Deutsch, Eric; Janigian, Leo; Frappier, Amy: **EXPANDING THE VARVE CHRONOLOGY: MORE PRELIMINARY RESULTS FROM GLACIAL LAKE WARRENSBURG, HUDSON VALLEY, NY**

3:15 PM **BREAK**

37-6 3:30 PM Kozlowski, Andrew*; Bird, Brian; Mahan, Shannon A.; Feranec, Robert S.; Teale, Chelsea L.; Leone, James: **GLACIAL LAKE NANETTE: A MIDDLE WISCONSIN (MIS 4 – 3) PROGLACIAL LAKE IN THE CAYUGA BASIN**

37-7 3:50 PM Fleisher, P. Jay*; Heisig, Paul: **THE EPHEMERAL SUSQUEHANNA LAKE SYSTEM: SHORT-LIVED DURING LAURENTIDE RETREAT**

37-8 4:10 PM Moss, Cheryl Johnson*: **STRATIGRAPHIC RECORD OF GLACIAL READVANCES ALONG THE HUDSON RIVER AT MANHATTANVILLE, NEW YORK CITY, NY**

SESSION NO. 38

T19. From Plane Tables to Drones: A Topography of Geologic Mapping in a Digital Landscape

3:05 PM, DoubleTree by Hilton Emerald I Ballroom

John Van Hoesen and Rick Chormann, Presiding

38-1 3:05 PM Karimi, Bobak*; Lee, Rachel: **MULTI-SCALE FRACTAL ANALYSIS OF FRACTURES WITHIN A GRANITOID OUTCROP NEAR PISECO LAKE, ADIRONDACKS, USING HIGH-RESOLUTION SEM AND GIGAPAN IMAGERY**

38-2 3:25 PM Hyatt, James A.*; Farlow, James O.; Galton, Peter; Cueto, Ryan; Fontaine, Jeffrey D.: **BUILDING AND ANALYZING STRUCTURE-FROM-MOTION POINT CLOUD DATA FOR VISIBLE AND BURIED TRACKSITES AT DINOSAUR STATE PARK, ROCKY HILL, CT**

38-3 3:45 PM Radue, Mariah J.*; Putnam, Aaron E.; Strand, Peter D.: **INTERPRETING GLACIAL CHRONOLOGIES IN THE MONGOLIAN ALTAI USING DRONE-DERIVED MAPS**

38-4 4:05 PM Strand, Peter D.*; Putnam, Aaron E.; Radue, Mariah J.: **HIGH RESOLUTION 10-BE SURFACE-EXPOSURE DATING AIDED BY UAV-DERIVED GLACIAL GEOMORPHIC MAPPING ON THE EASTERN TIBETAN PLATEAU**

38-5 4:25 PM O'Neil-Dunne, Jarlath*: **WOODY DEBRIS IN STREAMS PLAYS AN IMPORTANT ECOLOGICAL ROLE**

38-6 4:45 PM Hamshaw, Scott D.*; Dewoolkar, Mandar: **MONITORING FLUVIAL GEOMORPHIC CHANGE USING UNMANNED AIRCRAFT SYSTEM (UAS) PHOTOGRAMMETRY AND LASER SCANNING**

SESSION NO. 39

T20. SEPM Symposium: The Devonian Terrestrial Realm II: Current Perspectives and New Research

1:30 PM, DoubleTree by Hilton Diamond I Ballroom

Charles Ver Straeten, William E. Stein and Rose-Anna Behr, Presiding

39-1 1:30 PM Kochanov, William E.*: **DEPOSITIONAL CYCLES WITHIN THE UPPER DEVONIAN CATSKILL FORMATION OF NORTHEASTERN PENNSYLVANIA**

39-2 1:50 PM Behr, Rose-Anna*: **FIELD MAPPING THE TERRESTRIAL DEVONIAN: A PENNSYLVANIA PERSPECTIVE**

39-3 2:10 PM Ver Straeten, Charles*: **TRAVERSING THE CATSKILLS SUCCESSION, BOTTOM TO TOP: APPROACH AND CHALLENGES**

39-4 2:30 PM Broussard, David*; Trop, Jeffrey M.; Benowitz, Jeffrey A.; Daeschler, Ted: **DETRITAL CHRONOSTRATIGRAPHIC CONSTRAINTS ON UPPER DEVONIAN TETRAPOD AND FISH ASSEMBLAGES IN CATSKILL FORMATION SITES OF NORTH-CENTRAL PENNSYLVANIA: RECONSTRUCTING LATE DEVONIAN ECOSYSTEMS AND ENVIRONMENTS**

39-5 2:50 PM Daeschler, Ted*; Cressler, Walter: **BIOTIC CHANGE AND LATE DEVONIAN FLOODPLAIN DYNAMICS IN THE CATSKILL FORMATION (UPPER DEVONIAN) IN PENNSYLVANIA**

3:10 PM **DISCUSSION 2**

SESSION NO. 40

T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits II: A Session Honoring the Work of Bruce Selleck

1:30 PM, DoubleTree by Hilton Emerald II Ballroom

Timothy Grover, Greg J. Walsh, Michael L. Williams, Sean P. Regan, Marian Lupulescu and Peter Valley, Presiding

40-1 1:30 PM Chiarenzelli, Jeffrey R.*; Lupulescu, Marian V.: **FIELD AND GEOCHRONOLOGIC CONSTRAINTS ON THE IRON OXIDE-APATITE (IOA) ORES OF THE EASTERN ADIRONDACKS**

- 40-2 1:50 PM Walsh, Gregory J.*; Aleinikoff, John N.; Regan, Sean P.; Merschat, Arthur J.; Shah, Anjana K.; Taylor, Ryan D.; Taylor, Cliff D.; Geer, Phillip S.; Toft, Meghan E.: **DISTRIBUTION, GEOLOGIC SETTING, AND RARE-EARTH ELEMENT (REE) POTENTIAL OF HISTORIC IRON DEPOSITS IN SOUTHERN ESSEX COUNTY, NEW YORK**
- 40-3 2:10 PM Darling, Robert S.*; Lupulescu, Marian V.; Chiarenzelli, Jeffrey R.; Singer, Jared: **RARE EARTH ELEMENT COMPOSITION OF APATITE, ZIRCON AND MONAZITE FROM, AND U-PB ZIRCON AGE OF, THE PORT LEYDEN NELSONITE, WESTERN ADIRONDACK HIGHLANDS, NY**
- 40-4 2:30 PM Andersen, Allen K.*; Fenner, Emily R.; Singer, Jared W.: **GEOTHERMOBAROMETRY AND OXIDE CHEMISTRY OF THE SANFORD LAKE DEPOSIT AND OTHER FE-TI-V-P ORES IN THE ADIRONDACK HIGHLANDS, NEW YORK**
- 40-5 2:50 PM Aleinikoff, John N.*; Walsh, Gregory J.; Vervoort, Jeffrey D.: **SHRIMP U-PB AGES OF ZIRCON AND MONAZITE, AND GARNET LU-HF AGES IN ANORTHOSITE OF THE MARCY MASSIF, ADIRONDACK HIGHLANDS, NY: RECOGNIZING INHERITED, IGNEOUS, AND METAMORPHIC COMPONENTS**
- 40-6 3:10 PM McAleer, Ryan J.*; Jubb, Aaron M.; Hackley, Paul C.; Regan, Sean; Walsh, Gregory J.: **PICKING IN THE DARK: FLUORESCENCE IMAGING OF ZIRCON ON A PETROGRAPHIC SCOPE, A PRACTICAL GRAIN-PICKING TOOL**

SESSION NO. 41***T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England II: A Session Honoring the Work of Jo Laird and Peter J. Thompson***

1:50 PM, DoubleTree by Hilton Emerald III Ballroom

Ian W. Honsberger, Wallace A. Bothner and Peter Robinson, Presiding

- 41-1 1:50 PM Karabinos, Paul; Crowley, James; Stamp, Laura K.*: **STRATIGRAPHY AND PROVENANCE OF THE CONNECTICUT VALLEY-GASPE BASIN IN WESTERN NEW ENGLAND: EVIDENCE FOR A TOPOGRAPHIC BARRIER BETWEEN THE ACADIAN HINTERLAND AND FORELAND**
- 41-2 2:10 PM Perrot, Morgann Gwenva*; Tremblay, Alain; Ruffet, Gilles; Labrousse, Loic; Gervais, Felix: **STRUCTURAL AND METAMORPHIC EVOLUTION OF THE CONNECTICUT VALLEY-GASPÉ TROUGH – INSIGHTS FROM SOUTHERN QUEBEC AND NORTHERN VERMONT**
- 41-3 2:30 PM Jacobi, Robert D.*; Mitchell, Charles: **COEVAL DEVELOPMENT OF TACONIC RETRO-ARC ALLOCHTHON, UTICA BASIN, ASH BEDS, AND THE BIMODAL OLIVERIAN PLUTONIC SUITE: EFFECTS OF ASEISMIC RIDGE SUBDUCTION?**
- 41-4 2:50 PM Gonzalez, Joseph P.*; Baldwin, Suzanne L.; Kim, Jonathan J.; Webb, Laura E.: **A COMPARISON OF PRESSURE-TEMPERATURE-TIME HISTORIES ACROSS THE BURGESS BRANCH FAULT ZONE, NORTHERN VERMONT**
- 3:10 PM **BREAK**
- 41-5 3:25 PM Aiken, Cheyne L.*; Webb, Laura E.: **GEOCHRONOLOGIC CONSTRAINTS ON THE TIMING OF METAMORPHISM AND EXHUMATION OF THE TILLOTSON PEAK COMPLEX IN NORTHERN VERMONT**
- 41-6 3:45 PM Mistikaw, Justin*: **GARNET GEOCHRONOLOGY AND PETROLOGY OF THE OSGOOD SCHIST: IMPLICATIONS FOR GRAPHITIZATION**
- 41-7 4:05 PM Brennan, Megan*; Dietsch, Craig; Czaja, Andrew D.: **RECOVERING EARLY-FORMED P-T CONDITIONS OF POLYPHASE, HIGH-GRADE ROCKS IN WESTERN CONNECTICUT USING RAMAN SPECTROSCOPY OF INCLUSIONS IN GARNET**

- 41-8 4:25 PM Neale, Shannon*; Dietsch, Craig: **NEWLY RECOGNIZED GRANITE MAP UNITS REPLACE MIXED META-SEDIMENTS+GRANITE IN THE NORTHERN STAMFORD AND POUND RIDGE QUADRANGLES, SOUTHWESTERN CONNECTICUT**

AFTERNOON POSTER TECHNICAL SESSIONS

SESSION NO. 42***T7. Biogeochemical Cycling in Natural and Human-Altered Landscapes (Posters)***

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

Booth #

- 42-1 1 Knoell, Diana*; Lopez, Olivia; Poggioli, Mark; Stokes-Malave, Diego; Wallace, Evan; Schmitkons, Jonathan P.: **GEOCHEMICAL MODELING OF MEROMICTIC GREEN LAKE, FAYETTEVILLE, NY**
- 42-2 2 Shanley, James B.*; Chalmers, Ann T.: **THE VALUE OF LONG-TERM RESEARCH AT SLEEPERS RIVER RESEARCH WATERSHED IN VERMONT**
- 42-3 3 Karson, Elizabeth G.*; Redder, Brian W.; Balogh-Brunstad, Zsuzsanna: **WATER CHEMISTRY OF A HEMLOCK FOREST IN THE ROBERT V. RIDDELL STATE PARK OF NEW YORK**
- 42-4 4 Ryan, Sophia*; Wemple, Beverley; Ross, Donald S.: **QUANTIFYING STREAM PHOSPHORUS DYNAMICS AND TOTAL SUSPENDED SEDIMENT EXPORT IN FORESTED WATERSHEDS IN VERMONT**
- 42-5 5 Armanetti, Casey L.*; Rhodes, Amy L.: **INVESTIGATING ACID MINE DRAINAGE CONTROLS ON CARBON CYCLING IN DAVIS MINE BROOK AND MAXWELL BROOK WATERSHEDS, ROWE, MASSACHUSETTS**
- 42-6 6 Wilkes, Austin E.*; Schroth, Andrew: **AUTUMN STORMS TRIGGER ENHANCED EXPORT OF IRON, PHOSPHORUS, AND CARBON FROM A FORESTED VERMONT CATCHMENT**
- 42-7 7 Palmer, Corey*; Markstein, Katherine; Tanner, L.H.: **SEPARATING THE ROLES OF TEMPERATURE AND MOISTURE IN CONTROLLING RATES OF DECOMPOSITION OF SOIL ORGANIC MATTER**
- 42-8 8 Landsman-Gerjoi, Maxwell*; Lancellotti, Brittany; Beisel, Carli; Cincotta, Malayika; Adair, Carol; Schroth, Andrew; Perdril, Julia: **INCUBATIONS VS. FLUORESCENCE SPECTROSCOPY: A FIELD AND LAB STUDY ON DOM BIOAVAILABILITY**
- 42-9 9 Rivas, Fritzie*: **INTERACTION OF SELECTED ENDOCRINE DISRUPTING CHEMICALS TO BIOSOLIDS-DERIVED DISSOLVED ORGANIC MATTER (BDOM) BY SOLID PHASE EXTRACTION METHOD**
- 42-10 10 Mook, Ellen*; Vasilik, Jonathan; Alfaife, Yahya; Frederick, Holly; Anaya, Nelson: **THE INVESTIGATION OF THE USE OF BIOCHAR TO PROMOTE AGRICULTURE ON ABANDONED MINE LAND**
- 42-11 11 Sanders, Ashley R.*; Vermilyea, Andrew W.: **EFFECT OF PHOTOCHEMICAL TRANSFORMATION ON DISSOLVED ORGANIC CARBON CONCENTRATION AND BIOAVAILABILITY FROM WATERSHEDS WITH VARYING LANDCOVER**
- 42-12 12 Rogers, Meredith*; Weil, Kimberly; Leather, Dyllon; Sauerwald, Bayleigh; Sheinbaum, Amy; Schmitkons, Jonathan P.: **MICROBIAL CYCLING OF ARSENIC AND ANTIMONY IN CONTAMINATE AND PRISTINE ENVIRONMENTS**
- 42-13 13 Shavitz, Aaron*: **INFLUENCE OF SOIL CHEMISTRY ON CARBON AND NUTRIENT LIBERATION IN SLEEPERS RIVER WATERSHED**
- 42-14 14 Oleskewicz, Kevin*; Ruggiero, Joseph; Gourley, Jonathan: **A FIELD INVESTIGATION OF MERCURY IN SOILS ACROSS THE WHITE MOUNTAIN NATIONAL FOREST, NEW HAMPSHIRE: IMPLICATIONS FOR BOREAL FOREST ECOSYSTEMS**

- 42-15 15 Louis, Emma Rose*; Allen, Phillip; Flood, Jonathan: **PLANTS EAT WHAT? LONG-TERM MONITORING OF GREENHOUSE SOIL AT FROSTBURG GROWS, WESTERN MARYLAND**
- 42-16 16 Jackman, Emma; Passaretti, Melanie; Chia Yan Min, Kimberly; Sharp, Rosalie M.; Brabander, Daniel J.*: **DECADAL CHANGES IN CITY OF BOSTON MUNICIPAL COMPOST: IDENTIFYING BEST MANAGEMENT THROUGH GEOCHEMISTRY AND PARTICIPATORY ACTION RESEARCH**

SESSION NO. 43

T11. Current Research in Coastal and Marine Processes (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

- Booth #
- 43-1 17 Mattheus, C.R.*: **THE SHALLOW STRATIGRAPHIC FRAMEWORK OF THE INNER CONTINENTAL SHELF OF DELAWARE MAPPED FROM HIGH-RESOLUTION SEISMIC AND CORE DATA**
- 43-2 18 Alexandre, Leah; Brim, Brim; Callahan, Patrick; Camacho, Lesly*; Donohue, Morgan; Szilágyi, Morgan; Turrin, Margaret J.: **DENSITY OF UCA PUGNAX AND UCA MINAX (FIDDLER CRABS) AND THE USAGE OF VEGETATION IN PIERMONT MARSH, NEW YORK**
- 43-3 19 Barker, Nicholas F.*; Johnson, Beverly J.; Dostie, Philip T.: **THE GEOLOGIC HISTORY OF SCARBOROUGH MARSH**
- 43-4 20 Mattheus, C.R.*; Diggins, Thomas P.: **RECENT LANDFORM DEVELOPMENT AND VEGETATION SUCCESSION ALONG GULL POINT, PRESQUE ISLE, PA, THE DISTAL TERMINUS OF A COMPOUND BARRIER-SPIT SYSTEM ALONG THE SOUTHEASTERN LAKE ERIE MARGIN**
- 43-5 21 Vasylenko, Klavdiya*; Jaskot, Amy M.; Sparacio, Christopher A.; Buynevich, Ilya V.; Curran, H. Allen: **HYDROGRAPHIC REGIME PREFERENCES OF BURROWING COASTAL DECAPODS (CARDISOMA/DISCOPLAX): PALEOENVIRONMENTAL IMPLICATIONS**
- 43-6 22 Chormann, Alaina G.*; O'Hora, Heidi E.; Bennett, Hayley I.; Been, Alec G.; Gallego, Andres; Williams, Samantha K.; Herbert, Jordan N.; Barnes, Hannah F.; Maung, Jessica N.; McReynolds, Angus, C.; Pagano, Alexandra E.; Hickernell, Sarah M.; Ludlam, Abadie P.; Pope, Mollie; Verheyden, Anouk; Gillikin, David: **LATERAL EXCHANGE OF MANGROVE SEDIMENT POREWATER DISSOLVED INORGANIC CARBON TO CORAL REEF ECOSYSTEMS**
- 43-7 23 Schenck, Rowena*; Kopicki, Maria; Martini, Anna M.: **EFFECTS OF TIDAL INFLUX ON MERCURY METHYLATION IN HAMBURG COVE, CT**
- 43-8 24 Blatus, Elena*; Hubeny, J. Bradford: **LATE HOLOCENE BREACHES OF A MESOTIDAL WELDED BARRIER: PHILLIPS BEACH, SWAMPSCOTT, MA**
- 43-9 25 Zappas, John*; Moskalski, Susanne: **SUSPENDED SEDIMENT CONCENTRATION AND SEDIMENT FLUX OVER A RESTORED OYSTER REEF**
- 43-10 26 Bohnenkamper, Alexia N.*; Oakley, Bryan A.: **COMPARING MEASURED SHORELINE CHANGE USING THE POSITION OF THE LAST HIGH TIDE SWASH AND BLUFF CREST BETWEEN 1952 AND 2014/2016 FOR BLOCK ISLAND, RHODE ISLAND, USA**
- 43-11 27 Garnand, Alexandra*; Oakley, Adrienne; Cornell, Sean; Bond, Thomas; Sergent, Eric; Bochicchio, Christopher: **SEDIMENT GRAIN SIZE TRENDS PRE- AND POST- BEACH REPLENISHMENT ALONG WALLOPS ISLAND, VIRGINIA FROM 2011-2017 AT MONTHLY AND SEASONAL RESOLUTION**
- 43-12 28 Smith, Theresa, L.*; Adams, Mark, B.; Legare, Bryan; Giese, Graham; Borrelli, Mark: **REVISITING THE AGE AND DEVELOPMENT OF PROVINCELANDS HOOK, CAPE COD MASSACHUSETTS – A FRESH LOOK**
- 43-13 29 Sutter, Brandon*; Milinic, Bojan; Moriarty, Sarah; Oakley, Adrienne; Cornell, Sean; Sherrod, Laura A.; Bochicchio, Christopher; Cooper, Adam T.: **GEOPHYSICAL AND STRATIGRAPHIC INVESTIGATION OF ASSATEAGUE ISLAND, VIRGINIA: UNRAVELING THE**

EVOLUTION OF THE ONLY MID-ATLANTIC DUPLEXED BARRIER ISLAND SYSTEM

- 43-14 30 Gongas, Erik P.*; Hubeny, J. Bradford: **COASTAL GEOMORPHOLOGY OF PHILLIPS BEACH, SWAMPSCOTT MASSACHUSETTS: SEDIMENT VOLUME RESPONSE TO METEOROLOGICAL FORCINGS**
- 43-15 31 Kulesza, Ashley L.*; Johnson, Beverly J.; Dostie, Philip T.: **ASSESSING THE AMOUNT OF CARBON STORED IN MAINE SALT MARSHES**
- 43-16 32 Weldeghebriel, Mebrahtu F.*; Lowenstein, Tim K.: **MAJOR, MINOR AND TRACE ELEMENT EVOLUTION OF PHANEROZOIC SEAWATER**
- 43-17 33 Milinic, Bojan*; Sutter, Brandon; Moriarty, Sarah; Oakley, Adrienne; Cornell, Sean; Bochicchio, Christopher: **INVESTIGATING BARRIER ISLAND EVOLUTION THROUGH STRATIGRAPHIC ANALYSIS OF VIBRACORES FROM ASSATEAGUE AND CHINCOTEAGUE ISLANDS, VA**
- 43-18 34 Allen, Olivia*; Cornell, Sean R.: **INVESTIGATION OF IMPACTS OF SEA-LEVEL RISE, STORM SURGE AND CLIMATE CHANGE ON MARITIME FORESTS ADJACENT TO CHINCOTEAGUE BAY, VIRGINIA USING DENDROECOLOGY TREE RING ANALYSIS**
- 43-19 35 Biskup, Ksawery J.*; Degen, Austin; Griffiths, Michael L.; DaSilva, Michael; Potapova, Marina; Desianti, Nina; Enache, Mihaela: **ENVIRONMENTAL EVALUATION OF MID-ATLANTIC COASTAL WETLANDS FROM PAIRED GEOCHEMICAL AND DIATOM ANALYSIS OF SEDIMENTS**

SESSION NO. 44

T13. Deglaciation and Late-Glacial Climate Research, Northeastern U.S. and Eastern Canada (Posters)

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

- Booth #
- 44-1 36 Papp, Cassandra N.*; Finkenbinder, Matthew S.; Campisi, Angelena N.; Baratta, Daniel D.: **THE TIMING OF LAURENTIDE ICE SHEET DEGLACIATION AND POSTGLACIAL PALEOENVIRONMENTAL CONDITIONS FROM NUANGOLA LAKE AND NORTH LAKE, LUZERNE COUNTY, PENNSYLVANIA**
- 44-2 37 Sivak, Tyler*; Reichard-Flynn, Willow R.; Willever, Heather; Sewall, Jacob O.; Sherrod, Laura A.: **POTENTIAL PALSZA RELICTS IN EASTERN PENNSYLVANIA**
- 44-3 38 Rubin, Paul A.*: **INTERPRETATION OF ICE-MARGINAL HYDROLOGIC CONDITIONS BASED ON SEDIMENT PRESERVATION IN CLARKSVILLE CAVE; EAST-CENTRAL NEW YORK STATE**
- 44-4 39 Barclay, David J.*: **DEGLACIAL ICE MARGINS IN THE FINGER LAKES REGION OF CENTRAL NEW YORK**
- 44-5 40 Doody, Erica*; Briner, Jason P.: **A MULTI-PROXY APPROACH FOR DETECTING LATE PLEISTOCENE CLIMATE EVENTS IN WESTERN NEW YORK**
- 44-6 41 Beaton, Andrew*; Hubeny, J. Bradford: **INSIGHTS ON THE TIMING OF THE DEGLACIATION OF NE MASSACHUSETTS: DOGTOWN MORaine, GLOUCESTER, MA**
- 44-7 42 Magdon, Irene*; Dutil, Mallory; Grigg, Laurie D.: **A LATE-GLACIAL RECORD OF ENVIRONMENTAL CHANGE FROM PECKS POND WETLAND, VERMONT**
- 44-8 43 Cashman, Hazel M.*; Eusden, J. Dykstra; Boisvert, Richard A.; Thompson, Woodrow B.: **THE POSTGLACIAL RIVERTON STAGE OF GLACIAL LAKE ISRAEL: AN IMPORTANT FEATURE FOR THE OCCUPANTS OF THE ISRAEL RIVER COMPLEX?**
- 44-9 44 Amon, Leeli*; Hargan, Kathryn E.; Peros, Matthew: **POSTGLACIAL VEGETATION DYNAMICS AND ENVIRONMENTAL CHANGE RECORDED AT A SMALL SCOTSTOWN BOG LOCATED IN THE BASIN OF A FORMER PROGLACIAL LAKE, SOUTHERN QUÉBEC, CANADA**

- 44-10 45 Cook, Timothy L.*; LeNoir, James; Campbell, Timothy D.: **DEGLACIATION AND POST-GLACIAL CLIMATE AND ENVIRONMENTAL HISTORY OF THE MEALY MOUNTAINS, SOUTHEASTERN LABRADOR, CANADA**
- 44-11 46 Couette, Pierre-Olivier*: **LATE QUATERNARY PATTERNS OF DEGLACIATION IN CLYDE INLET, EASTERN BAFFIN ISLAND**

SESSION NO. 45**D9. Geoscience Education and History of Geology (Posters)**

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

Booth #

- 45-1 47 Markley, Michelle*: **A SPEAKING- AND WRITING-INTENSIVE APPROACH TO AN INTERMEDIATE-LEVEL UNDERGRADUATE HISTORICAL GEOLOGY COURSE**
- 45-2 48 Weiss, Tarin Harrar*; Christensen, David: **STREAM RESTORATION AND THE ADVANCEMENT OF STUDENTS' UNDERSTANDING OF THE NATURE OF SCIENCE**
- 45-3 49 Larsen, Kristine*: **LADY GRACE ANNE PRESTWICH (1832-99) AND THE POPULARIZATION OF GEOLOGY**
- 45-4 50 Aurand, Harold W.*; Vice, Daniel H.: **ACADEMIC EARTH SCIENTISTS AND THE "LONE RANGER" PROBLEM**
- 45-5 51 Hluchy, Michele M.*: **WATER FOR HAITI AND BOOKS FOR CAMEROON: INCORPORATING CHARITABLE CAUSES INTO GEOSCIENCE CLASSES AS A VEHICLE FOR TEACHING ABOUT THE HYDROSPHERE**
- 45-6 52 Perry, Elizabeth S.*; Domack, Cynthia R.: **A GUIDE TO URBAN PALEONTOLOGY: SELECTED SITES IN PARIS, FRANCE**
- 45-7 53 Reusch, Douglas N.*; Soucier, Daniel S.: **"BEFORE PANGAEA" GEOHERITAGE CORRIDOR, QUEBEC CITY TO GULF OF MAINE**
- 45-8 54 Reisley, Danielle D.*; Domack, Cynthia R.: **A GUIDEBOOK TO SELECTED PALEONTOLOGIC MUSEUMS IN SPAIN**
- 45-9 55 Smith, Jason J.*; Leet, Kennie: **FIELD GEOSCIENCE IN THE PRESIDENTIAL RANGE: USING LOCAL HISTORY TO ENHANCE STUDENT EXPERIENCES**
- 45-10 56 Heath, Brenton J.*; Williams, Kevin K.: **CREATING IMMERSIVE VIRTUAL FIELD TRIPS USING 360 DEGREE IMAGES AND VIDEOS**

SESSION NO. 46**D10. Stratigraphy, Sedimentology, and Sedimentary Petrology (Posters)**

1:30 PM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 2 to 4 PM

Booth #

- 46-1 57 Maguire, Henry C.*; Mehrtens, Charlotte; Chiarenzelli, Jeffrey; Webb, Laura E.: **DETRITAL ZIRCON AGES FOR THE CAMBRIAN MONKTON AND DANBY FORMATIONS, CHAMPLAIN VALLEY, VERMONT**
- 46-2 58 Ludman, Allan*; Machado, Gil; Fernandes, Paulo: **DATING HITHERTO UNFOSSILIFEROUS TURBIDITES IN THE SILURIAN SANDSTONE SEA, CENTRAL AND EAST-CENTRAL MAINE: A GLIMMER OF HOPE**
- 46-3 59 Maksymiw, Nicole*; Sunderlin, David; Wilson, John R.: **A PROVENANCE ANALYSIS OF THE SHAWANGUNK FORMATION IN EASTERN PENNSYLVANIA AND WESTERN NEW JERSEY**
- 46-4 60 Zega, Zack*; Elick, Jennifer M.: **USING FACIES ANALYSIS TO DESCRIBE A MIGRATING DELTA LOBE OBSERVED IN THE TRIMMERS ROCK FORMATION (UPPER DEVONIAN): CENTRAL PA, STATE RT. 322 (WATTS TWP)**
- 46-5 61 Keough, Brandon M.*; King, Olivia A.; Stimson, Matthew R.; Quinton, Page C.; Rygel, Michael C.: **SEQUENCE STRATIGRAPHY OF THE LATE CARBONIFEROUS CLIFTON FORMATION, NEW BRUNSWICK**
- 46-6 62 Clutson, Michael J.; Tanner, Lawrence H.*; Brown, David E.: **DISTAL EVIDENCE (?) OF THE LATE TRIASSIC (NORIAN)**

- 46-7 63 Scielzo, Agnieszka*; Coron, Cynthia R.; Peavey, Eric J.: **STRATIGRAPHY OF THE LOWER SHUTTLE MEADOW FM. (JURASSIC), LAMENTATION MTN., MERIDEN-BERLIN, CT**
- 46-8 64 Peters, Lucas*; Rygel, Michael C.: **THE ORIGIN AND SIGNIFICANCE OF A POSSIBLE "FIRECLAY" IN THE CRETACEOUS KOOTENAI FORMATION, SW MONTANA**
- 46-9 65 Kisluk, Isabelle*; Underwood, Abigail C.; Reichard-Flynn, Willow R.; Wizevich, Michael C.; Simpson, Edward L.: **CHARACTERIZATION AND INTERPRETATION OF A LACUSTRINE MICROBIALITE UNIT IN THE EARLY CRETACEOUS YELLOW CAT MEMBER, CEDAR MOUNTAIN FORMATION, EAST-CENTRAL UTAH**
- 46-10 66 Kuna, Paul S.*; Knell, Michael J.; Fleming, Thomas H.: **VALIDITY OF PLAYA LACUSTRINE SYSTEMS BASED ON EVAPORITE PRESENCE WITHIN THE SONSELA MEMBER OF THE CHINLE FORMATION, PETRIFIED FOREST NATIONAL PARK, ARIZONA**
- 46-11 67 Underwood, Abigail C.; Wizevich, Michael C.*; Kisluk, Isabelle; Simpson, Edward L.; Reichard-Flynn, Willow R.: **SEDIMENTARY FACIES ANALYSIS OF THE EARLY CRETACEOUS POISON STRIP AND RUBY RANCH MEMBERS OF THE CEDAR MOUNTAIN FORMATION, EAST-CENTRAL UTAH**
- 46-12 68 Drzewiecki, Peter*; Hunt, David W.; Wright, Wayne R.; Verges, Jaime; Almar, Ylenia; Casini, Giulio; Moragas, Mar: **TECTONIC, SEA-LEVEL, AND PALEOECOLOGICAL CONTROLS ON CARBONATE FACIES DISTRIBUTION, SANTONIAN SANT CORNELI FORMATION, SOUTH-CENTRAL PYRENEES, SPAIN**

TUESDAY, 20 MARCH 2018**MORNING
ORAL TECHNICAL SESSIONS****SESSION NO. 47****T3. Stories of Resilience: River Restoration and Recovery in the Northeast**

8:00 AM, DoubleTree by Hilton University Amphitheater

K.L. Underwood and John Field, Presiding

- 47-1 8:00 AM Springston, George E.*; Thomas, Ethan: **LANDSLIDES IN THE GREAT BROOK WATERSHED, WASHINGTON COUNTY, CENTRAL VERMONT**
- 47-2 8:20 AM Wildey, Robert A.*; Ketterling, Brad: **RIGHTING PAST WRONGS – A GEOLOGIC JUMP-START FOR COLD BROOK**
- 47-3 8:40 AM Louisos, Jessica Clark*; Schiff, Roy; Braun, Michele; Smith, Ann: **FLOODPLAIN RESTORATION AND FLOOD RESILIENCY: AN APPLICATION OF FLUVIAL GEOMORPHOLOGY ALONG THE DOG RIVER IN NORTHFIELD, VERMONT**
- 47-4 9:00 AM Wildey, Robert A.*; Guyette, Aaron: **REBUILDING FOR RESILIENCE AND FUNCTIONALITY IN THE GREEN MOUNTAIN NATIONAL FOREST**
- 47-5 9:20 AM Burchsted, Denise*: **SEDIMENT RESPONSE TO DAM REMOVAL IN A RIVER WITH LOW STREAM POWER**
- 47-6 9:40 AM Schiff, Roy*: **THE EAST BURKE DAM REMOVAL STORY**
- 10:00 AM **BREAK**
- 47-7 10:15 AM Field, John J.*: **RESILIENT STREAMS ARE A MESS**
- 47-8 10:35 AM Gartner, John D.*; Hatch, Christine; Lukas, Stephen; Larsen, Isaac J.: **RIVER RESTORATION ON THE CHICKLEY RIVER, PREDICTIONS OF CHANNEL CHANGE, AND THE ROLE OF A MAJOR FLOOD AS A NATURAL AGENT OF RIVER RESTORATION**

SESSION NO. 48***T7. Biogeochemical Cycling in Natural and Human-Altered Landscapes***

8:00 AM, DoubleTree by Hilton Emerald III Ballroom

James B. Shanley and Doug Burns, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 48-1 8:05 AM Boyer, Elizabeth W.*: **BIOGEOCHEMICAL CYCLING IN MID-APPALACHIAN FORESTED CATCHMENTS**
- 48-2 8:25 AM Barclay, Janet Rice*; Helton, Ashley M.; Briggs, Martin A.; Starn, J. Jeffrey; Hunt, Ann: **GROUNDWATER DISCHARGE OF LEGACY NITROGEN TO RIVER NETWORKS: PATTERNS OF SUBSURFACE TRAVEL TIME, NITROGEN LOADING, AND DENITRIFICATION**
- 48-3 8:45 AM McDowell, William H.; Koenig, Lauren E.*; Snyder, Lisle E.; Potter, Jody D.: **REGIONAL COHERENCE OF STREAM NITRATE CONCENTRATIONS: IMPLICATIONS FOR THEORY AND MANAGEMENT**
- 48-4 9:05 AM Green, Mark B.*: **POTENTIAL DRIVERS OF A REGIONAL STREAMWATER NITRATE PULSE**
- 48-5 9:25 AM Alldred, Mary*; Hoellein, Timothy; Bruesewitz, Denise A.; Zarnoch, Chester: **NITROGEN-REMOVAL SERVICES OF RESTORED SALT MARSHES IN JAMAICA BAY (NEW YORK, NY)**
- 48-6 9:45 AM Cincotta, Malayika*: **THE ROLE SOIL AGGREGATES PLAY IN THE GENERATION OF DISSOLVED ORGANIC CARBON: A CASE STUDY AT SLEEPERS RIVER RESEARCH WATERSHED**
- 10:05 AM **BREAK**
- 48-7 10:20 AM Fair, Jennifer Hoyle*; Matt, Serena; Hosen, Jacob; Saiers, James E.; Raymond, Peter; Shanley, James B.: **USE OF HIGH TEMPORAL AND SPATIAL RESOLUTION DATA TO EXAMINE HYDROLOGIC CONTROLS ON DISSOLVED ORGANIC MATTER AND MAJOR ION VARIABILITY IN NINE NESTED WATERSHEDS WITHIN THE PASSUMPSIC RIVER WATERSHED, VT, USA**
- 48-8 10:40 AM Racela, Jason*; Wieman, Scott T.; Dethier, David: **THIRTY-YEAR TRENDS IN ACID DEPOSITION AND NEUTRALIZATION IN TWO HEADWATER CATCHMENTS, NORTHWESTERN MASSACHUSETTS, USA**
- 48-9 11:00 AM Burns, Douglas A.*: **ANALYSIS OF C-Q RELATIONS IN ADIRONDACK STREAMS REVEAL SPATIAL PATTERNS OF EPISODIC ACIDIFICATION AND TEMPORAL PATTERNS OF RECOVERY**
- 48-10 11:20 AM Lawrence, Gregory B.*; Hazlett, Paul W.; Fernandez, Ivan J.; Ouimet, Rock; Bailey, Scott; Ross, Donald S.; Lapenis, Andrei: **MONITORING FOREST SOILS OVER TIME TO UNDERSTAND ACIDIC DEPOSITION EFFECTS AND RECOVERY**
- 48-11 11:40 AM Harnisch, Emma E.*; Newton, Robert M.; Anderson, Marc R.: **AN ECOSYSTEM ANALYSIS OF LEGACY HEAVY METAL CONTAMINATION IN CENTRAL NEW HAMPSHIRE: REGIONAL ATMOSPHERIC DEPOSITION VERSUS LOCALIZED IMPACTS FROM HISTORIC MINING**

SESSION NO. 49***T11. Current Research in Coastal and Marine Processes***

8:00 AM, DoubleTree by Hilton Emerald I Ballroom

Mark Borrelli and Bryan A. Oakley, Presiding

- 49-1 8:00 AM Kelley, Joseph*; Cooper, Andrew; Plets, Ruth; Belknap, Daniel F.: **MEASURING THE MOST COMPLICATED POST-GLACIAL SEA-LEVEL CHANGES IN THE WORLD: NORTHERN IRELAND**
- 49-2 8:20 AM Smith, Rebecca*; Castañeda, Isla; Henderiks, Jorijntje; Christensen, Beth A.; De Vleeschouwer, David; Renema, Willem; Groeneveld, Jeroen; Bogus, Kara; Gallagher, Stephen; Fulthorpe, Craig S.; Salacup, Jeff: **INDONESIAN**

THROUGHFLOW VARIABILITY AND ITS INFLUENCE ON THE CONTINENTAL CLIMATE HISTORY OF NW AUSTRALIA DURING THE PLIO-PLEISTOCENE

- 49-3 8:40 AM Blanchette, Jessica S.*; Lassetter, William L.: **MARINE MINERAL RESOURCES ON VIRGINIA'S OUTER CONTINENTAL SHELF: QUANTIFYING SAND DEPOSITS FOR COASTAL RESTORATION AND OCCURRENCES OF ECONOMIC HEAVY MINERALS**
- 49-4 9:00 AM Oakley, Bryan A.*; Varney, Madeline R.; Murphy, Cody J.; Hollis, Robert J.: **EVIDENCE FOR TWO DIRECTIONS OF LONGSHORE SEDIMENT TRANSPORT ALONG THE RHODE ISLAND SOUTH SHORE?**
- 49-5 9:20 AM Borrelli, Mark*; Mague, Steve; Giese, Graham; Smith, Theresa L.; Legare, Bryan: **UNDERSTANDING SHORT- AND LONG-TERM COASTAL EVOLUTION VIA QUANTITATIVE SEDIMENT BUDGETS**
- 49-6 9:40 AM Corcoran, Nathan W.*; Ward, Larry G.; McAvoy, Zachary S.: **TEMPORAL AND SPATIAL VARIABILITY IN SEDIMENT TEXTURE ON NORTHERN, PARAGLACIAL BEACHES: NEW HAMPSHIRE**
- 49-7 10:00 AM McCormack, Bryan*: **MEASURING ELEVATION CHANGES FROM OVERWASH AT BALLSTON BEACH, TRURO MA: SYSTEM EVOLUTION AND MANAGEMENT IMPLICATIONS**
- 49-8 10:20 AM Kelley, Alice R.*; Miller, Jacquelynn F.; Kelley, Joseph T.; Spiess, Arthur; Belknap, Daniel F.: **GROUND-PENETRATING RADAR AS A COASTAL CULTURAL RESOURCE TOOL**
- 49-10 11:00 AM Sparacio, Christopher A.*; Buynevich, Ilya V.; Curran, H. Allen; Kopcznski, Karen A.; Vasylenko, Klavdiya; Park Boush, Lisa E.: **ENVIRONMENTAL CONSTRAINTS ON THE DISTRIBUTION OF THE BLUE LAND CRAB IN THE BAHAMAS: IMPLICATIONS FOR PALEO-SHORELINE RECONSTRUCTION**
- 49-11 11:20 AM Gullede, Olivia C.*: **DENDROECOLOGICALLY UNDERSTANDING *CHAMAECYPARIS THYOIDES* RESILIENCY TO SALINITY INTRUSION**
- 49-12 11:40 AM Codden, Christina Jean*; Edwards, Catherine; Bittar, Thais; Wagner, Sasha; Spencer, Robert; Johnston, Sarah Ellen; Stubbins, Aron: **TEMPORALLY RESOLVED DISSOLVED ORGANIC CARBON DYNAMICS IN A GEORGIA SALT MARSH**

SESSION NO. 50***T18. Geolore: Local Geology Field Trips Merge Geology and History to Motivate Students, Teachers, and Community Members to Explore Natural Areas***

8:00 AM, DoubleTree by Hilton Emerald II Ballroom

Tarin Harrar Weiss, Lori Weeden and Melissa Lombard, Presiding

- 8:00 AM **INTRODUCTORY REMARKS: M.A. LOMBARD (USGS-NH)**
- 50-1 8:05 AM Weiss, Tarin Harrar*: **TIPPING ROCK: A TEACHING TOOL FOR OVER 100 YEARS**
- 50-2 8:25 AM Laliberte, Elizabeth*; Murray, Daniel P.: **RHODE ISLAND: THOUGH SMALL IN SIZE, RICH IN GEOLORE OPPORTUNITIES**
- 50-3 8:45 AM Lutz, Tim*; Srogi, LeeAnn: **TURNING LANDSCAPE RAMBLES INTO INTEGRATIVE, INTERDISCIPLINARY, INTERGENERATIONAL FIELD EXPERIENCES**
- 50-4 9:05 AM Weeden, Lori*: **EASTERN MASSACHUSETTS GEOLOGY, THE COLONIAL EXPANSION AND INDUSTRIAL REVOLUTION IN AND AROUND LOWELL, MASSACHUSETTS**
- 50-5 9:25 AM Alexander, Jane*: **INTERPRETATION OF LOCAL ROCKS IN THE CONTEXT OF REGIONAL EVENTS IN UNDERGRADUATE STUDENT LABS**
- 50-6 9:45 AM Reese, Joseph F.*: **"DID THE ATLANTIC CLOSE AND THEN RE-OPEN?": TEACHING THE TECTONIC HISTORY OF PENNSYLVANIA BY (RE-)CONSTRUCTING THE TECTONIC (WILSON) CYCLE**

- 10:05 AM **BREAK**
- 50-7 10:20 AM Schimmrich, Steven H.*: **A GEOLOGY FIELD COURSE INCORPORATING THE HISTORY OF THE HUDSON VALLEY REGION OF NEW YORK**
- 50-8 10:40 AM Muller, Otto H.*; Valentino, David: **NYSGA GUIDEBOOK DATABASE AVAILABLE AS AN EXCEL SPREADSHEET**
- 50-9 11:00 AM Doyle, Sarah L.*; Venne, Alfred: **A MULTIDISCIPLINARY APPROACH TO TEACHING LOCAL GEOLOGY: IMPRESSIONS FROM A LOST WORLD**
- 50-10 11:20 AM Roemmele, Christopher*: **GEOLOGIC TIME AND GEOLOGIC BLINDNESS: INFUSING INQUIRY AND A NARRATIVE OF THE NATURE OF SCIENCE INTO AN UNDERGRADUATE INTRODUCTORY GEOLOGY CLASS**
- 11:40 AM **DISCUSSION**

SESSION NO. 51**T24. Orogenic Sutures—Recognition, Characterization, and Tectonic Implications**

8:00 AM, DoubleTree by Hilton Diamond II Ballroom

Alain Tremblay and Laura E. Webb, Presiding

- 8:00 AM **INTRODUCTORY REMARKS**
- 51-1 8:05 AM Bogatu, Adina*; Sauv e, Giselle; Tremblay, Alain; Meshi, Avni; B edard, Jean H.: **EASTERN- AND WESTERN-TYPE ULTRAMAFIC MASSIFS OF THE MIRDITA OPHIOLITE, ALBANIA: INTRAOCEANIC DETACHMENT FAULT SYSTEM OR COMPRESSIONAL OROGENIC SUTURE?**
- 51-2 8:25 AM Waldron, John W.F.*; Schofield, David I.; Murphy, J. Brendan: **TRACING SUTURES IN AN ACCRETIONARY OROGEN: DIACHRONOUS PALAEOZOIC ACCRETION OF PERI-GONDWANAN TERRANES IN THE NORTHERN APPALACHIANS AND CALEDONIDES**
- 51-3 8:45 AM van Staal, Cees R.*: **STRIKE-SLIP ALLOCHTHONEITY OF TACONIC SUTURES IN THE NEWFOUNDLAND APPALACHIANS**
- 51-4 9:05 AM Hodgins, Eben Blake*; Macdonald, Francis A.: **REASSESSING THE MAIN IAPETAN SUTURE IN WESTERN NEWFOUNDLAND: NEW GEOCHRONOLOGICAL CONSTRAINTS ON THE TECTONIC HISTORY OF DASHWOODS AND CORNER BROOK**
- 51-5 9:25 AM Barr, Sandra M.*; White, Chris E.; van Rooyen, Deanne: **RECOGNIZING CRYPTIC OROGENIC SUTURES IN COLLISIONAL OROGENS: THE EXAMPLE OF CAPE BRETON ISLAND, NOVA SCOTIA, CANADA**
- 51-6 9:45 AM Ratcliffe, N.M.*; Dietsch, Craig; Merguerian, Charles; Walsh, G.J.; Michel, Andrew: **GEOCHEMISTRY OF META-IGNEOUS ROCKS OF THE NORTHERN APPALACHIAN TACONIAN PERI-LAURENTIAN AND OCEANIC COLLISIONAL MARGIN, VERMONT TO NEW YORK**
- 10:05 AM **BREAK**
- 51-7 10:20 AM Hatcher, Robert D.*: **APPALACHIAN SUTURES**
- 51-8 10:40 AM Warfel, Thomas S.*; Fitzgerald, Paul G.; Benowitz, Jeffrey A.; Ridgway, Kenneth D.; Allen, Wai K.: **LOW TEMPERATURE THERMOCHRONOLOGY CONSTRAINTS ON EXHUMATION ALONG AND ACROSS THE EAST-CENTRAL DENALI FAULT, ALASKA**
- 51-9 11:00 AM Tremblay, Alain*; Daoudene, Yannick; Ruffet, Gilles; Leclerc, Fran ois: **OROGENIC SUTURES IN THE ARCHEAN SUPERIOR PROVINCE, CANADA – A COUNTEREXAMPLE FROM NORTHERN QUEBEC**
- 52-1 8:05 AM Darbyshire, Fiona*: **SEISMIC PROPERTIES OF THE NORTHEASTERN NORTH AMERICAN CRUST FROM ARCHEAN TO PHANEROZOIC: A REVIEW**
- 52-2 8:25 AM Foster, Anna*; Darbyshire, Fiona; Schaeffer, Andrew J.: **THE PHASE-VELOCITY SIGNATURE OF LITHOSPHERIC DEFORMATION IN CENTRAL CANADA AND THE NORTH-CENTRAL UNITED STATES**
- 52-3 8:45 AM Yang, Xiaotao*; Gao, Haiying: **SEISMIC EVIDENCE OF ASTHENOSPHERE UPWELLING DRIVING THE UPLIFT OF THE ADIRONDACK MOUNTAINS**
- 52-4 9:05 AM Li, Cong*: **CORRELATION OF THREE-DIMENSIONAL VARIATIONS OF SEISMIC MOHO WITH TECTONIC TERRANES IN THE NORTHERN APPALACHIAN MOUNTAINS**
- 52-5 9:25 AM Elkington, Stephen*; Hlavaty, Janine; Levin, Vadim; Li, Yiran: **DEEP TEXTURE OF THE APPALACHIAN TERRANES**
- 52-6 9:45 AM Long, Maureen D.*; Aragon, John C.; Ford, Heather; Goldhagen, Gillian; Yang, Xiaotao; Gao, Haiying; Kuiper, Yvette: **STRUCTURE OF THE CRUST AND UPPER MANTLE ACROSS NORTHERN CONNECTICUT: PRELIMINARY RESULTS FROM THE SEISCONN EXPERIMENT**
- 10:05 AM **BREAK**
- 52-7 10:20 AM Menke, William*; Levin, Vadim; Long, Maureen D.; Dong, Mingduo Ted; Li, Yiran: **UPPER MANTLE DYNAMICS BENEATH NEW ENGLAND AND EASTERN NEW YORK: RISING CURRENTS AND FALLING FRAGMENTS**
- 52-8 10:40 AM Wise, Donald U.*: **APPALACHIAN GREAT GRAVITY GRADIENT: GEOLOGICAL EVIDENCE FOR ITS AGE AND ORIGIN**
- 52-9 11:00 AM Knapp, James H.*; Boote, Susannah K.; Herman, David J.; Hibbard, James: **WHITHER THE ALLEGHANIAN SUTURE?**
- 52-10 11:20 AM Kuiper, Yvette D.*: **DOES WEST AFRICAN CRUST EXTEND INTO SOUTHEASTERN NEW ENGLAND?**
- 11:40 AM **DISCUSSION**

MORNING POSTER TECHNICAL SESSIONS

SESSION NO. 53**T3. Stories of Resilience: River Restoration and Recovery in the Northeast (Posters)**

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- Booth #
- 53-1 1 Pietroniro, Angelina M.*; Rigali, Mathew T.; Nichipor, Nathan S.; Christensen, David; Weiss, Tarin Harrar: **IDENTIFYING MORPHOLOGICAL CHANGES ON KINNE BROOK 4 YEARS AFTER STREAM BARRIER REMOVAL**
- 53-2 2 Charboneau, Charlie; Gisholt Minard, Chandler; Laurence, Galen; Mano, Corey; Mooney, MacGregor; Morales, Luis; Zhang, Rengu; Dow, Samantha; Snyder, Noah P.*: **MEASUREMENTS OF SEDIMENT THICKNESS, SEDIMENT CHEMISTRY, BATHYMETRY, AND HISTORICAL CONDITIONS AT THE WATERTOWN DAM IMPOUNDMENT IN THE CHARLES RIVER, MASSACHUSETTS**
- 53-3 3 Yellen, Brian C.*; Ralston, David K.; Woodruff, Jonathan D.; Fernald, Sarah: **EVALUATING THE IMPACT OF TRIBUTARY DAM REMOVALS ON TIDAL WETLANDS WITHIN THE HUDSON RIVER ESTUARY**
- 53-4 4 Diggins, Thomas P.*; Mattheus, C.R.; Kaldy, Leah R.; Betras, Tiffany L.: **THE INFLUENCE OF GEOMORPHOLOGY AND THE SEDIMENTARY REGIME ON DISTURBANCE AND SUCCESSIONAL PROCESSES IN RIPARIAN ZONES OF THE LAKE ERIE GORGES ECOREGION OF WESTERN NEW YORK STATE**

SESSION NO. 52**T32. Combining Geology and Geophysics in the Appalachians**

8:00 AM, DoubleTree by Hilton Diamond I Ballroom

Maureen D. Long and Yvette D. Kuiper, Presiding

8:00 AM **INTRODUCTORY REMARKS**

SESSION NO. 54***T19. From Plane Tables to Drones: A Topography of Geologic Mapping in a Digital Landscape (Posters)***

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | Booth # | |
|---------|---|
| 54-1 | 5 Lobdell, Jason*; Hasbargen, Leslie: FLYING UNDER THE CANOPY: SUCCESSES AND FAILURES IN CAPTURING A RETREATED WATERFALL WITH DRONES AND HANDHELD SFM PHOTOGRAMMETRY |
| 54-2 | 6 Bernard, Curtis*; Valentino, David; Lee, Rachel: MULTI-SCALE MAPPING OF THE METAMORPHIC MINERALOGY OF EDWARDS, TRAINWRECK, SNAKE, AND DEKALB OUTCROPS (ADIRONDACK REGION) USING THERMAL INFRARED, SEM, XRD AND PETROGRAPHIC TECHNIQUES |
| 54-3 | 7 Cramer, Jennifer M.*; Lowry, Christopher S.; Rana, Rakeshsingh; Kommineni, Avinash; Dantu, Karthik: QUANTIFYING GROUNDWATER-SURFACE WATER EXCHANGE FROM LOW-ALTITUDE REMOTE SENSING USING LARGE-SCALE PARTICLE IMAGE VELOCIMETRY |
| 54-4 | 8 Hammond, Maxwell*: RELATIVE ELEVATION MODEL OF THE OHIO RIVER VALLEY IN NORTHERN KENTUCKY |
| 54-5 | 9 Torres, Natalie*; Kensell, Michael; Bullock, Jessica; Hough, Brian; Lee, Rachel: CAN GIGAPAN IMAGES BE USED AS AN ALTERNATIVE TO LIDAR TO MEASURE EROSION RATES?: AN EXPERIMENT ON GLACIAL TILL AT CHIMNEY BLUFFS STATE PARK, HURON, NY |
| 54-6 | 10 Farrell, James*; Karson, Jeffrey; Soldati, Arianna: STRUCTURE-FROM-MOTION PHOTOGRAMMETRY APPLIED TO MORPHOLOGIC STUDIES OF NATURAL AND EXPERIMENTAL BASALTIC LAVA FLOWS |
| 54-7 | 11 Tewksbury, David A.*: DEVELOPING A PROGRAM FOR USING UAVS IN THE UNDERGRADUATE GEOSCIENCES PROGRAM AT HAMILTON COLLEGE: THE NUTS AND BOLTS |
| 54-8 | 12 Green, Gabriella*; Lee, Rachel; Williams, Daniel: MAPPING THE AREAL EXTENT AND COMPOSITION OF VOLCANIC ASH DEPOSITS USING APPARENT THERMAL INERTIA |
| 54-9 | 13 Botting, Olivia*; Lee, Rachel; Valentino, David: MULTI-SCALE MAPPING OF THE METAMORPHIC MINERALOGY OF POPPLE HILL, STEER'S HEAD, AND ANTWERP OUTCROPS (ADIRONDACK REGION) USING THERMAL INFRARED, SEM, XRD, AND PETROGRAPHIC TECHNIQUES |

SESSION NO. 55***T22. The Adirondack Mountains and the Grenville Orogenic Cycle: New Results and Syntheses Regarding the Timing and Nature of Deformation, Metamorphism, Intrusion, and Formation of Ore Deposits: A Session Honoring the Work of Bruce Selleck (Posters)***

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | Booth # | |
|---------|--|
| 55-1 | 14 Taylor, Alexander T.*; Peck, William H.; Valley, John W.: ISOTOPE AND GEOCHEMICAL ANALYSIS OF ADIRONDACK ANORTHOSITE AND IMPLICATIONS FOR MASSIF EMPLACEMENT HISTORY |
| 55-2 | 15 Barcello, Julia C.*; Daggett, Lily H.; Peck, William H.; Valley, John W.: LOW OXYGEN ISOTOPE RATIOS IN GARNET FROM THE LEWIS DEPOSIT, ADIRONDACK HIGHLANDS |
| 55-3 | 16 Lambert, Christopher W.*; Gervais, Felix; Moukhsil, Abdelali: DELINEATION AND CHARACTERIZATION OF TECTONIC DOMAINS IN THE WESTERN GRENVILLE PROVINCE - PRELIMINARY RESULTS OF GEOLOGICAL MAPPING ALONG HIGHWAY 117, QUÉBEC, CANADA |
| 55-4 | 17 Pless, Claire R.*; Williams, M.L.; Grover, T.W.; Suarez, Kaitlyn; Smith, Ashley: TIMING OF PARTIAL MELTING USING COMBINED IN-SITU MONAZITE AND ZIROCN GEOCHRONOLOGY, EASTERN ADIRONDACK HIGHLANDS, NY |

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| 55-5 | 18 Suarez, Kaitlyn*; Williams, Michael L.; Grover, Timothy W.; Valley, Peter M.; Walsh, G.J.; Regan, Sean P.; Pless, Claire R.: AN INVESTIGATION INTO THE CORRELATION BETWEEN NA-METASOMATISM AND ECONOMIC DEPOSIT IN THE ADIRONDACK MOUNTAINS, NY |
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| 55-6 | 19 Smith, Ashley M.*; Grover, T.W.; Williams, Michael L.; Pless, Claire R.; Suarez, Kaitlyn; Baurle, Eric: STRUCTURE, PETROLOGY, AND GEOCHRONOLOGY OF ORTHOGNEISSES IN THE SOUTHERN SHELVEING ROCK QUADRANGLE, EASTERN ADIRONDACKS, NEW YORK |
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SESSION NO. 56***T28. Petrologic, Structural, and Tectonic Interpretations in Northern New England: A Session Honoring the Work of Jo Laird and Peter J. Thompson (Posters)***

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | Booth # | |
|---------|---|
| 56-1 | 20 Michel, Andrew*; Dietsch, Craig; Van Nostrand, Maria; Hollocher, Kurt: WHOLE-ROCK GEOCHEMISTRY OF INTERMEDIATE TO FELSIC ORTHOGNEISSES IN WESTERN CONNECTICUT RECORD VOLCANIC ARC MAGMATISM |
| 56-2 | 21 Merrill, Thorn K.*; Niiler, Kurt A.; Eusden, J. Dykstra; O'Sullivan, Paul B.: STRUCTURE AND DEFORMATION OF THE JEFFERSON OLIVERIAN DOME IN THE SOUTHERN HALF OF THE MT. CRESCENT 7.5 QUADRANGLE, NEW HAMPSHIRE |
| 56-3 | 22 FitzGerald, C.S.*; Rossman, Britt; Bancroft, Alyssa M.; McLaughlin, Patrick I.; Bish, David L.; Devlin, William; Wintsch, Robert: HAVE CONODONTS SURVIVED KYANITE-GRADE METAMORPHISM IN THE MARBLES OF TRUMBULL, CONNECTICUT? |
| 56-4 | 23 Gentry, Emilie N.*; Kuiper, Yvette D.; Holm-Denoma, Christopher S.; Hepburn, J. Christopher: CHARACTERIZING THE SOUTHWESTERN EXTENT OF THE NORUMBEGA FAULT SYSTEM, A MID-PALEOZOIC CRUSTAL-SCALE STRIKE-SLIP FAULT SYSTEM IN THE NEW ENGLAND APPALACHIANS |
| 56-5 | 24 Neal, Bryce*; Reusch, Douglas N.; Strauss, Justin V.; Bradley, Dwight; Gibson, David: HYPER-CRYPTIC THRUST FAULTS IN THE RUMFORD ALLOCHTHON, SADDLEBACK WIND, CARTHAGE, MAINE |

SESSION NO. 57***D11. Igneous and Metamorphic Petrology (Posters)***

8:00 AM, DoubleTree by Hilton Lake Champlain Exhibition Hall

Authors will be present from 9 to 11 AM

- | Booth # | |
|---------|---|
| 57-1 | 25 Hickernell, Sarah M.*; Frey, Holli M.; Manon, Matthew R.F.: ENCLAVE CHARACTERIZATION AND RELATIONSHIPS WITH HOST ANDESITE IN MORNE MICOTRIN, DOMINICA, LESSER ANTILLES |
| 57-2 | 26 Ludlam, Abadie P.*; Frey, Holli M.; Manon, Matthew R.F.: DECOMPRESSION INDUCED AMPHIBOLE BREAKDOWN IN LAVA DOMES ON DOMINICA, LESSER ANTILLES |
| 57-3 | 27 Ferguson, Megan M.*; Rowe, Michael C.; Tost, Manuela; Nemeth, Karoly: USING PYROCLASTIC TEXTURES TO UNDERSTAND DYNAMIC ERUPTION PROCESSES IN THE AUCKLAND VOLCANIC FIELD, NEW ZEALAND |
| 57-4 | 28 Pimentel, Regina*; Harpp, Karen; Geist, Dennis; Bercovici, Hannah; Mahr, Jake; Cleary, Zack; Cordova, Marco: ISPY SAN CRISTOBAL'S MAGMA SOURCE: THE GALAPAGOS ISLAND EDITION |
| 57-5 | 29 Hollyday, Andrew*; Walowski, Kristina: UTILIZING TRACE ELEMENT DIFFUSION MODELS IN CLINOPYROXENE AND OLIVINE TO DETERMINE ASCENT RATES OF CINDER CONE MAGMAS IN THE SOUTHERN CASCADES |
| 57-6 | 30 Van Nostrand, Maria*; Hollocher, Kurt; Robinson, Peter: PETROLOGY AND THERMODYNAMIC MODELING OF AMPHIBOLITE FACIES ROCKS (RETROGRADED ECLOGITES) |

- IN THE BLÅHØ NAPPE OF THE MIDDLE ALLOCHTHON, SCANDINAVIAN CALEDONIDES IN NORWAY**
- 57-7 31 Leonard, Brianna*; Fletcher, Joshua; Gibson, David: **THE ORIGIN OF GARNETS FROM THE NORTH JAY AND CAPE COD HILL PLUTONS, WEST-CENTRAL MAINE**
- 57-8 32 Mason, Daniel*; Rerrick, Chase; Gibson, David; Mark, Darren: **PETROGRAPHY, AGE AND PROVENANCE OF MAFIC DIKES, WESTERN MAINE**
- 57-9 33 Shamus, Tim*; Marguglio, Matt; Severs, Matthew J.: **ORIGIN OF NORTHERN NEW JERSEY LAMPROPHYRE DIKES IN RELATION WITH THE BEEMERVILLE COMPLEX**
- 57-10 34 Charney, Allison*; Steinen, Randolph P.; Thomas, Margaret A.: **MESOZOIC DIABASE DIKE NOMENCLATURE IN CONNECTICUT**
- 57-11 35 Reilly, Kristine E.*; Fleming, Thomas H.; Mocci, Brian R.: **GEOCHEMICAL COMPOSITION OF THE SOUTH BROOK BASALT FROM THE EARLY MESOZOIC POMPERAUG BASIN, WESTERN CONNECTICUT**
- 57-12 36 Ciaburri, Carey E.*; Fleming, Thomas H.: **THE STRONTIUM ISOTOPE COMPOSITION AND TIMING OF SECONDARY MINERALIZATION IN THE ORENAUG BASALT FROM THE EARLY MESOZOIC POMPERAUG BASIN, WESTERN CONNECTICUT**
- 57-13 37 Marcarelli, Matthew Stephen*: **PETROLOGY AND GEOCHEMISTRY OF ENIGMATIC CA. 1.4 GA PLUTONS IN THE SOUTHERN FRONT RANGE OF COLORADO: IMPLICATIONS FOR PETROGENESIS AND TECTONIC SETTING**
- 57-14 38 Dusza, Joseph James*: **MOONSTONE AND OTHER GEM FELDSPARS OF THE BRIMFIELD SCHIST AND NEIGHBORING GNEISS AND GRANULITE**
- 57-15 39 Caswell, Brandon*; Gilotti, Jane A.; Webb, Laura E.; Jones, Daniel A.; McClelland, William C.: **⁴⁰AR/³⁹AR GEOCHRONOLOGY OF BIOTITE FROM DUCTILE SHEAR ZONES OF THE ELLESMERE-DEVON CRYSTALLINE TERRANE, NUNAVUT, CANADIAN ARCTIC**
- 57-16 40 Golia, Rebecca Lynne*; Harms, Tekla A.; Cheney, John T.: **DETERMINING PROTOLITH AND METAMORPHIC GRADE FOR BIOTITE-GARNET GNEISS IN THE RUBY RANGE, SW MT**
- 58-3 43 Moscho, Michael J.*; Cullen, James L.: **HIGH RESOLUTION RECORDS OF ICE RAFTED DEBRIS AT ODP SITE 980 NORTHEAST ATLANTIC OCEAN DURING MARINE ISOTOPE STAGES 4-2**
- 58-4 44 Hollyday, Andrew*; Amidon, William H.; Centeno, Eduardo; LaPan, Mark; Lloyd, Forrest W.; O'Connell, Suzanne B.; Ortiz, J.D.; Luna, Melissa R.: **PRELIMINARY WAVELET ANALYSIS OF CIRCUM-ANTARCTIC ODP WELL LOGS AND SPLIT-CORE XRF SCANS FROM ODP SITE 697 CORES INFERS OBLIQUITY SIGNAL**
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CODE OF CONDUCT AT GSA EVENTS



GSA is a premier, international scientific society whose goals and mission are to advance geoscience research and discovery, to provide service to society and to promote stewardship of Earth, within and beyond the geosciences profession. In fulfilling its goals and mission, and in keeping with its Diversity Position Statement, GSA meetings foster the exchange of scientific ideas, through open and respectful dialogues at oral and poster sessions, field trips, short courses, mentorships and other GSA-supported programs. GSA promotes, provides, expects and endorses a professional and respectful atmosphere and values a diversity of views and opinions.

All registrants, guests, volunteers, exhibitors, GSA staff, service providers, and others in attendance are expected to abide by this GSA Events Code of Conduct, which outlines specific expectations for participants at GSA-supported events and is in addition to the provisions of the GSA Code of Conduct.

Expected Behavior

All registrants, guests, volunteers, exhibitors, GSA staff, service providers, and others in attendance are to:

- Be treated with respect and consideration.
- Be considerate, collegial, and collaborative.
- Communicate openly, with civil attitudes, critiquing ideas rather than individuals.
- Avoid personal attacks directed toward other registrants, guests, volunteers, exhibitors, GSA staff, service providers, and others in attendance.
- Obey the rules and policies of the meeting venue, hotels, GSA contracted facility, or any other venue where your meeting badge and GSA affiliation is likely to be displayed.
- Alert meeting security personnel, GSA staff, or GSA leadership if you notice someone in distress, or perceive a potentially dangerous situation, or witness a dangerous situation.

Procedures to be followed in an emergency situation:

- Evaluate the situation and if appropriate call 911 or activate a local fire alarm.
- Do not endanger yourself. Follow the directions of building security, law enforcement, fire department, military personnel, or GSA staff.
- Initiate first aid if appropriate, so trained and necessary.
- Be as observant as possible in order to communicate to emergency staff.

Unacceptable Behavior includes but is not limited to:

- Harassment, intimidation, or discrimination.

- Physical or verbal abuse of any registrant, guest, volunteer, exhibitor, GSA staff, service provider, or other attendee.
- Disruption of presentations at oral or poster sessions, in the exhibit hall, on field trips, or at other events organized by GSA at the meeting venue, hotels, or other GSA-contracted facilities.
- Audio and video recording, or taking images of an individual's oral presentation without the presenters' permission, is expressly forbidden. Images of posters taken without permission are not allowed. Images of posters may be taken with the explicit consent of the presenter, and images may be acquired only in the presence of the presenter.

Examples of unacceptable behavior include but are not limited to:

- Verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, national origin or any other identified characteristic outlined in the GSA Diversity Position Statement .
- Inappropriate use of nudity and/or sexual images in public spaces or in presentations.
- Intentional, uninvited physical contact of any form.
- Threats (implied or real) of, physical, professional or financial harm.
- Stalking registrants, guests, volunteers, exhibitors, GSA staff, service providers, or others in attendance.

Consequences of Unacceptable Behavior

- Anyone requested to stop unacceptable behavior is expected to immediately cease and desist.
- GSA staff, leadership, security, or law enforcement personnel shall take action(s) deemed necessary and appropriate. Actions may include immediate removal from the meeting or field trip without warning or refund.
- GSA reserves the right to prohibit attendance at any future GSA meeting or other GSA-sponsored event.

Reporting Unacceptable Behavior

If you are being harassed, notice that someone else is being harassed, or have any other concerns, please locate a GSA Staff Member or GSA Leader (see page 3) with a GSA RISE button. You may also email GSA at gsa-eventscode@gmail.com.

Always remember that if it is a life-threatening emergency, dial 9-1-1. If you are within the meeting venue or hotel, it is helpful to have someone notify a staff member or building employee if possible to avoid delays with emergency responders.

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