New England Arctic Network Research Symposium

Poster Presentations – 1:00 – 2:15

1. The New England Arctic Network. Katharine Duderstadt (presenter), Robyn Barbato, Paul Berkman, Melody Burkins, Cara Condit, Jack Dibb, Susan Kaplan, Karl Kreutz, Jake Kritzer, Erich Osterberg, Holly Parker, Firooza Pavri, Rebecca Pincus, Kristin Schild, Cameron Wake, Simone Whitecloud. katharine.duderstadt@unh.edu

2. Systems Approaches to Understanding and Navigating the New Arctic (SAUNNA) NRT Program at the University of Maine. Jasmine Saros, Kathleen Bell, Lee Karp-Boss, Paul Mayewski, Darren Ranco, Misa Saros (presenter). misa.saros@maine.edu

3. The Connecting Arctic Research Perspectives and Education (CARPE) NRT. Ruth Varner (presenter), Jerker Bexelius, Julie Bryce, Elizabeth Burakowski, Alexanra Contosta, Katharine Duderstadt, Jessica Ernakovich, Meghan Howey, Jennifer Knutson, Michael Palace, Denise Pouliot, Paul Pouliot, Elena Sparrow, Katie Spellman, Cameron Wake. ruth.varner@unh.edu

4. Leadership of Heart and Mind: Examining the Mind and Skill Sets of Student Sustainability Leadership. Holly Parker. hparker3@une.edu

5. Using variable resolution grids to model atmospheric rivers around the Greenland ice sheet. Annelise N Waling (presenter), Elizabeth Burakowski, Adam Herrington, Katharine Duderstadt. annelise.waling@unh.edu

6. Air Pollution Lessons for Middle School Students. Laura Heinlein, Jack Dibb (presenter), Cort Anastasio. lmheinlein@ucdavis.edu

7. Tracking Winter Snowpack Conditions Using Unpiloted Aerial Systems (UAS). Megan Verfaillie, Cameron Wagner, Adam Hunsaker, Jennifer M. Jacobs, Michael W Palace, Franklin Sullivan. meganverfaillie@unh.edu

8. Glacier change in the north: widespread retreat of glaciers that meet the ocean since 2000. Will Kochtitzky and Luke Copland. wkochtitzky@une.edu

9. UAS Imagery Analysis of SRFR Orthoimages for Remote Snowpack Property Retrieval. Tim Hoheneder (Presenter, UNH), Jennifer Jacobs (UNH), Adam Hunsaker (UNH), Cameron Wagner (UNH). tjhoheneder@mix.wvu.edu

10. Investigation of the ca. 1100 BP White River Ash in the Denali Ice Core Record. Hanna L. Brooks (University of Maine, presenter), Andrei V. Kurbatov, Dominic A. Winski, Meredith E. Helmick, Karl J. Kreutz, Martin G. Yates, Christopher Gerbi, Erich C. Osterberg, Cameron P. Wake. hanna.brooks@maine.edu

11. A Quantitative Analysis of Seasonal and Regional Forcing on the Terminus of Store Glacier, Greenland, from High Resolution Photogrammetry. Hayden Pearson (presenter), Dr. Johnny Ryan, Henry Patton, Alun Hubbard. hpe079@uit.no
12. **Non-Alcoholic Fatty Liver Disease (NAFLD) is a silent and serious companion to mental illness and metabolic disease: Implications for rural communities in the North.** Anwesha Gangopadhyay (presenter), Meghan May and Karen L. Houseknecht. khouseknecht@une.edu

13. **Northward Expansion of Pathogen-Carrying Tick Populations Predicts Increases in Tickborne Diseases in the North.** Evangeline Green, Chrysanthi Lundstat, Anthony Chase, William Miller, Meghan May (presenter). mmay3@une.edu

14. **Reducing Student Exposure to Digital Food and Beverage Marketing.** Michele Polacsek, Summer Moukalled (presenter), Cara Wilking. mpolacsek@une.edu

15. **Rabies on Ice: Learning from Interspecies Suffering in Arctic Canada.** Susan McHugh. smchugh@une.edu

16. **Life on the island: Community storytelling.** Paula Gerstenblatt (presenter), Jan Piribeck, Elizabeth Chalmers, Wynne Cushing, Lisa Luken, Matt Keith, Samantha Comeau. elizabeth.chalmers@maine.edu

17. **WWII Military Sites in Narsarsuaq Greenland and Long Island Maine.** Jan Piribeck (presenter), Paula Gerstenblatt, Elizabeth Chalmers, Wynne Cushing, Lisa Luken, Matt Keith, Samantha Comeau. elizabeth.chalmers@maine.edu

18. **Perceptions of Place in North Atlantic Destinations: Local and Visitor Flickr Photo Visualizations.** Tracey Michaud, Colleen Metcalf (presenter), Matthew Bamptom. tracy.michaud@maine.edu

19. **Data infrastructure & research prioritization for coastal Arctic systems: shipping & environmental DNA.** Erin Grey (presenter), Alex Whiting, Greg Fiske. erin.grey@maine.edu

20. **Arctic Coastal Biodiversity Monitoring Plan: Preliminary Knowledge Maps.** Tahzay Jones (author); Laura C. Sanchez (author & presenter); Elizabeth Hasan (co-author); Haley Griffin (co-author); Sierra Fletcher (co-author). sanchezlauracr@gmail.com

21. **Spatio-temporal vegetation shifts across UNESCO World Heritage site in Kujataa, Greenland, 2000-2020.** Firooza Pavri (presenter), Dianna Farrell, Izaak Onos. firooza.pavri@maine.edu

22. **Fishing for Data: Collaborating with Fishing to Compliment Existing Ocean Observation Networks and Fill Data Gaps.** Cooper Van Vranken (presenter) Jack Carroll, Patrick Gorringe (SMHI Sweden). cooper@oceandata.net

23. **Thermal tolerance of American lobster post larvae reared under wild and lab conditions.** Aubrey Jane (presenter), Markus Frederich, Jesica Waller, Doug Rasher, Eric Annis. ajane@une.edu

24. **Feeling the heat: Forecasting the effects of Climate Change on White Hake (Urophycis tenuis) abundance in the Gulf of Maine.** Benjamin LaFreniere (presenter), Briony Donahue, Rebecca Peters, Richard McBride, John Mohan. blafreniere@une.edu

25. **Supporting Ecosystem Services of Habitat and Biodiversity in Temperate Seaweed (Saccharina latissima) Farms.** Emilly Schutt (presenter), Adam St. Gelais, Doug Rasher, Rene Francolini, Nichole Price, Carrie Byron. eschutt@une.edu

26. **Arctic bivalve aquaculture: Promises and challenges from a changing environment.** Kaisa Holloway Cripps. kaisa.holloway@maine.edu

27. **Using variable resolution grids to model atmospheric rivers around the Greenland ice sheet.** Annelise N Waling (presenter), Elizabeth Burakowski, Adam Herrington, Katharine Duderstadt. annelise.waling@unh.edu
Hanna Brooks is a PhD Candidate at the University of Maine, School of Earth and Climate Sciences and the Climate Change Institute. As a small child growing up surrounded by the Appalachian Mountains, Hanna quickly developed a curiosity for how the planet works. This evolved with age into a passion for geology and an undergraduate degree in geosciences from Virginia Tech. She has amassed a diverse geoscience-based scientific background, with past research projects spanning the fluids of subduction zones, the chemistry of mollusk shells and fish otoliths, the solubility of minerals at high pressures and temperatures, and in-situ geochronology. Her doctoral research at the University of Maine examines the history of volcanic and anthropogenic aerosol impacts in the Arctic using Alaskan ice cores. This research is a part of a collaborative effort across New England (University of Maine, Dartmouth, Colby, and University of New Hampshire) to understand the impacts of natural and anthropogenic climate change in the North Pacific throughout the Holocene. When not studying ice, Hanna can often be found working for New England Steam Corporation to restore the Maine Central #470 steam locomotive.

Izaak Onos of the University of Southern Maine is a recipient of the inaugural Shaw Innovation Fellowship for his involvement in the research project: Monitoring Long-term Vegetation Change across Kujataa, South Greenland. Izaak has a master’s degree in Policy, Planning and Management from the Muskie School of Public Service at the University of Southern Maine. He also has a BA in Geography/Anthropology and a certificate in Applied Geographic Information Systems. A native Mainer and self-proclaimed geography nut, Izaak is often nose-first in an atlas, or riding his bicycle around greater Portland.

Lauren Hayden is a master’s student in the School of Marine and Environmental Programs at the University of New England in Biddeford, Maine. She holds an associate degree in marine science from Southern Maine Community College and a Bachelor of Science in marine science from the University of New England. Lauren grew up on Peaks Island, Maine, and has maintained a close connection to the sea. Her masters research centers around mapping local eelgrass beds with a combination of remote sensing techniques including side scan sonar and aerial drones. She is deeply concerned about the climate crisis and its effect on the ocean and the creatures which live in and alongside it. When not looking at images of the seafloor Lauren enjoys gardening, watching British detective shows and making glass beads. She secretly believes that she will find sunken treasure.

Megan Verfaillie is a first-year Ph.D. student in Civil & Environmental Engineering at the University of New Hampshire (UNH) where she received a fellowship from the NSF-sponsored Convergent Arctic Research Perspectives and Education program. Megan’s master’s research at UNH was funded by the Arctic Domain Awareness Center in partnership with the UNH Center for Spills and Environmental Hazards to study oil spill modeling for improved response to arctic maritime spills. Megan grew up in southern New Hampshire, but during her time at UNH she became inspired by the complexity and importance of conducting convergence research in the Arctic and cold regions. Her current research interests include cold regions extreme weather disasters, climate change and infrastructure, snow hydrology, and applications of remote sensing/unmanned
aerial systems (UAS). When she’s not working on research, Megan enjoys working on her motorcycle, mountain biking in the White Mountains, and exploring new places in the seacoast.

Dr. Karen Houseknecht (moderator) is a Professor of Pharmacology is in the College of Osteopathic Medicine and the Associate Provost for Research at the University of New England. She serves as the Chief Science Officer and the Research Integrity Officer for the University. She has previously served as Interim Dean and founding faculty member of the College of Pharmacy at the University of New England. Dr. Houseknecht has served as a scientific leader in both academic and corporate research settings including roles as VP Global Research at ASDI, Inc. and Associate Research Fellow, Diabetes Drug Discovery, Pfizer Global Research and Development. Dr. Houseknecht’s NIH funded research program lies at the interface of neuroscience and endocrinology, focusing on mechanistic pharmacology of psychiatric medications relating to both safety and efficacy. Her work also explores implications of off-label prescribing to vulnerable populations including children, as well as new therapeutic discovery and development. Dr. Houseknecht is the mother of two children, Aidan (22 yrs) and Aislinn (17 yrs) and enjoys international travel, kayaking, camping and the arts.

Keynote - The SmartICE approach to Indigenous knowledge, training and technology for ice travel safety in northern communities, 3:00 – 4:00

Justin Sigluk Milton is an Inuk from Mittimalik (Pond Inlet), Nunavut, and he is the new manager of Ikaarvik, a new non-profit Inuit-run organization. Justin currently lives in Ottawa, and he is passionate about Inuit and the world of science and research. His career background includes working in the federal government as an indigenous outreach worker, as well as working in indigenous, not-for-profit organizations. Justin’s current role as manager (among others) is to identify gaps in Arctic research with the context of Inuit in the North. Building meaningful connections with Inuit and addressing community priorities is key to better research and Inuit engagement in the Arctic.

Trevor Bell, University Research Professor in Geography at Memorial University of Newfoundland, is a champion of issues surrounding climate change and Indigenous people in the Arctic, and whose extraordinary creativity, drive, and concern has had a substantial impact on the wellbeing of Canadians across the North. He has merged natural and social sciences with Indigenous knowledge and expertise to create a truly multi-disciplinary approach to his research on climate variability and change. In recognition of the significance of his research to his discipline, policy change, and the community, Dr. Bell was named a Fellow of both the Royal Society of Canada and the Royal Canadian Geographical Society. He has twice received the Arctic Inspiration Prize, in collaboration with the Nunatsiavut Government, for knowledge-to-action plans that benefit Arctic Peoples. His most recent partnership—SmartICE—has transformed into a social enterprise recognized by the United Nations (2017) for its novel climate solution, and the Governor General’s Innovation Award (2019) for its “truly exceptional, transformative, and positive impact on quality of life in Canada”. In 2021, Trevor received the inaugural Frederik Paulsen Arctic Academic Action Award and the Martin Bergmann Medal for Excellence in Arctic Leadership for his ground-breaking achievements on climate change adaptation.