

## Appendix F – Publications and Academic Presentations

### Summary:

• Peer-reviewed journal publications:	314
• Conference Presentations – Invited, Plenary & Keynote:	192
• Conference Presentations:	596
• Books and Book Chapters:	06
• Non-refereed publications including model code:	44
• Graduate and undergraduate theses:	73
• Others:	06
• Datasets:	04
• Conference Posters:	11

### Peer-reviewed Journal Publications

- Abu, R., Reed, M.G., and Jardine, T.D. (Accepted). Demonstrating how to bridge science and indigenous knowledge to understand change in the Saskatchewan River Delta. *International Journal of Water Resources Development*. DOI: 10.1080/07900627.2018.1558050.
- Alcon, F., Tapsuwan, S., Brouwer, R., Yunes, M., Mounzer, O. and de-Miguel, M.D. (2019). Modelling farmer choices for water security measures in the Litana river basin in Lebanon. *Science of the Total Environment*, 647: 37-46. DOI: <https://doi.org/10.1016/j.scitotenv.2018.07.410>.
- Almonte J, Stewart RE. 2019. Precipitation transition regions over the southern Canadian Cordillera during January–April 2010 and under a pseudo-global warming assumption. *Hydrol. Earth Syst. Sci.* (Conditionally Accepted)
- Amjath-Babua, T.S., Sharmab, B., Brouwer, R., Rasulb, G., Wahide, S.M., Neupaneb, N., Bhattaraif, U. and Sieber, S. (2019). Integrated modelling of the impacts of hydropower projects on the waterfood-energy nexus in a transboundary Himalayan river basin. *Applied Energy*, 239: 494-503.
- Amjath-Babua, T.S., Sharmab, B., Brouwer, R., Rasulb, G., Wahide, S.M., Neupaneb, N., Bhattaraif, U. and Sieber, S. (2019). Integrated modelling of the impacts of hydropower projects on the waterfood-energy nexus in a transboundary Himalayan river basin. *Applied Energy*, 239: 494-503. i. The data used are listed in the references, figures, tables, and within the article.
- Archibald, S., C.E.R. Lehmann, C.M. Belcher, W.J. Bond, R.A. Bradstock, A.L. Daniau, K.G. Dexter, E.J. Forrestel, M. Greve, T. He, S.I. Higgins, W.A. Hoffman, B.B. Lamont, D.J. Mcglinn, G.R. Moncreiff, C.P. Osborne, J.G. Pausas, O. Price, B.S. Ripley, B.M. Rogers, D.W. Schwilk, M.F. Simon, M.R. Turetsky, G.R. Van der Werf, A.E Zanne. (2018). Biological and geophysical feedbacks with fire in the Earth System. *Environmental Research Letters*. 13: 10.1088/1748-9326/aa9ead.

- Asare E, Mantyka-Pringle C, Anderson, E, Belcher K, & Clark R. Quantifying Ecosystem Services for Agricultural Wetlands: A Global Review. Forthcoming
- Asong, Z. E., Wheeler, H. S., Bonsal, B., Razavi, S., & Kurkute, S., (2018), Historical drought patterns over Canada and their relation to teleconnections, *Hydrology and Earth System Sciences*, 22(6), 3105-3124.
- Aziz T. and Van Cappellen, P. (2019). Comparative valuation of potential and realized ecosystem services in southern Ontario, Canada. *Environmental Science and Policy*. (Submitted and Under Review). i. Data will be published and a DOI assigned when the article is published.
- Barber, Q. E., Parisien, M. A., Whitman, E., Stralberg, D., Johnson, C. J., St-Laurent, M. H., ... & Flannigan, M. D. (2018). Potential impacts of climate change on the habitat of boreal woodland caribou. *Ecosphere*, 9(10), e02472. doi 10.1002/ecs2.2472.
- Baulch, H., J. Elliott, H. Wilson, M. Cordeiro, D. Lobb and D. Flaten. 2019 (in press). Soil and water management practices for agricultural nutrient mitigation in the Northern Great Plains. *Environmental Reviews*.
- Baulch, H.M., Elliott, J.A., Cordeiro, D.N., Lobb, D.A., Wilson, H.F. In press. Soil and water management practices: opportunities to mitigate nutrient losses to surface waters in the Northern Great Plains. *Environmental Reviews*. <https://doi.org/10.1139/er-2018-0101>
- Baulch, H.M., Elliott, J.A., Cordeiro, D.N., Lobb, D.A., Wilson, H.F., in press (2019). Soil and water management practices: opportunities to mitigate nutrient losses to surface waters in the Northern Great Plains. *Environmental Reviews*. DOI: <https://doi.org/10.1139/er-2018-0101>.
- Ben Alaya, M. A., F. W. Zwiers and X. Zhang, 2019b: Evaluation and comparison of CanRCM4 and CRCM5 to estimate probable maximum precipitation over North America. Submitted, *Journal of Hydrometeorology*.
- Ben Alaya, M. A., F. W. Zwiers, and X. Zhang, 2019a: Probable maximum precipitation in a warming climate over North America in CanRCM4 and CRCM5. Submitted, *Climatic Change* (in revision).
- Ben Alaya, M.A., F.W. Zwiers and X. Zhang, 2019c: Should we expect extreme value theory to produce reliable estimates of long return period climate extremes. Submitted, *Journal of Climate* (In revision).
- Berg A. 2018. Monitoring soil moisture in situ and using a variety of satellite sensors. Sino-American Technology and Engineering Workshop. Smart Water Management. Tinjin, China. Presentation and conference paper (11 pages).
- Berg, A., Krafczek, M., Clewley, D., Whitcomb, J., Akbar, R., Moghaddam, M., & McNarin, H. (2018, July). Contributions of Geophysical and C-Band SAR Data for Estimation of Field Scale Soil Moisture. In *IGARSS 2018-2018 IEEE International Geoscience and Remote Sensing Symposium* (pp. 6127-6130). IEEE.
- Bergstedt, H., A. Bartsch, C. Duguay, B.M. Jones, and C.D. Arp. Influence of surface water on coarse resolution C-band backscatter: Implications for freeze/thaw retrieval from scatterometer data. *Remote Sensing of Environment*. In review.

- Besnard S., Carvalhais, N., Arain, M.A., Black, A., Bruin, S.D. Buchmann, N., Cescatti, A., Chen, J., Clevers, J.G.P.W., Desai, A.R., Gough, C.M., Havrankova, K., Herold, M., Hörtnagl, L., Jung, M., Knohl, A., Kruijt, B., Krupkova, L., Law, B.E., Lindroth, A., Noormets, A., Rouspard, O., Steinbrecher, R., Varlagin, A., Vincke, C., & Reichstein, M. (2018). Quantifying the effect of forest age in annual net forest carbon balance. *Environmental Research Letters*, 13, 124018. doi: 10.1088/1748-9326/aaeaeb.
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- Biagi, K. M., Oswald, C. J., Nicholls, E. M., & Carey, S. K. (2019). Increases in salinity following a shift in hydrologic regime in a constructed wetland watershed in a post-mining oil sands landscape. *Science of The Total Environment*, 653, 1445-1457.
- Biagi, K. M., Oswald, C. J., Nicholls, E. M., & Carey, S. K. (2019). Increases in salinity following a shift in hydrologic regime in a constructed wetland watershed in a post-mining oil sands landscape. *Science of The Total Environment*, 653, 1445-1457. doi: 10.1016/j.scitotenv.2018.06.039
- Black, KE and Baltzer, JL. Seasonal thaw and landscape position determine tall shrub function on the low arctic tundra. *New Phytologist*, in review.
- Bocaniov, S., and Scavia, D. (2018). Nutrient loss rates in relation to transport time scales in a large shallow lake (Lake St. Clair, USA–Canada): Insights from a three-dimensional model. *Water Resources Research* 54: 3825-3840. i. The data used are listed in the references, figures, tables, supporting information, and can be available upon request by contacting the corresponding author (S. Bocaniov, [sbocaniov@uwaterloo.ca](mailto:sbocaniov@uwaterloo.ca)).
- Bocaniov, S., Van Cappellen, P., and Scavia, D. (2019). On the role of a large shallow lake (Lake St. Clair, USA-Canada) in modulating phosphorus loads to Lake Erie. *Water Resources Research* (in review; manuscript ID: 2019WR025019). i. Data will be provided in the supplementary material and published a recognized data repository once the paper is accepted.
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- Duguay, C.R. and J. Wang, 2019 (in press). Advancement in bedfast lake ice mapping from Sentinel-1 SAR data. *Proceedings of 2019 IEEE International Geoscience & Remote Sensing Symposium*, Yokohama, Japan, Japan (4 pages).
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### Books and Book Chapters

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- Debasish Chakroborti, Banani Roy, Amit Kumar Mondal, Golam Mostaeen, Ralph Deters, Chanchal K. Roy and Kevin A. Schneider. A Data Management Scheme for Micro-Level Modular Computation-intensive Programs in Big Data Platforms", In: Moshirpour M., Far B., Alhajj R. (eds) *Highlighting the Importance of Big Data Management and Analysis for Various Applications*, 20pp., vol x. Springer (to appear with minor revisions).
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#### **Non-Refereed Publications including Model Code**

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Asadzadeh M. and Stadnyk T. et al. (2018), A python script to couple HEC-HMS (and HEC-DSSVue as well since HEC-HMS I/O is facilitated by HEC-DSSVue) and MODSIM.

Banani Roy, Manishankar Mandol, Hamid Khodabandehloo, Chanchal K. Roy and Kevin A. Schneider. Towards next-Gen CRHM. Poster presented at The Annual Science Meeting of Global Water Futures, 2019.

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Data product for ECCC data catalogue. Water Quality and Quantity Monitoring at Edge-of-Field and In Streams; and Snow, Soil Surveys in Agricultural Catchments of the Lake Winnipeg Basin. PI: Jane Elliott

Developed and optimized protocols for eDNA sampling from water and sediment\*\*

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- Ilia Rudnitskiy and Debajyoti Mondal. Interactive Visualization of Geospatial Water Datasets (poster). The Annual Science Meeting of Global Water Futures, 2018.
- Jarin Tasnim, Gazi MD Hasnat Zahan, Carl Gutwin, Kevin A. Schneider, and Debajyoti Mondal. Towards a Machine Learning Approach for the Prediction and Compression of WRF Datasets. The Annual Science Meeting of Global Water Futures, 2019.
- Laird BD, \*Ratelle M. 2018. Specialized Analysis of Chemical in Human Samples from Two First Nations Regions in the Northwest Territories, Canada: Results Report. Prepared for Population Biomonitoring Section, Health Canada.
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- Slaughter, A. and Razavi, S.: An ensemble of 500 time series of weekly flows from 16002001 for the four sub-basins of the Saskatchewan River Basin generated through disaggregating tree-ring reconstructed flow [Dataset]. Federated Research Data Repository. <https://doi.org/10.20383/101.0139>, 2019.
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- Straker, J., Carey, S.K., Petrone, R.M., Baker, T.J. 2018. Using ecosystem water and carbon fluxes as integrated measures of reclamation success. Proceedings of the 2018 Northern Latitudes Mining Reclamation Workshop, Whitehorse, YT, September 10-13, 2018.
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The WRF-CCRN simulation: including two climate scenarios: the current climate (CTL) from 2000-10 to 2015-09 and a pseudo-global warming (PGW) scenario representing the condition of 2085-2100 under RCP8.5. The model domain covers western Canada with 4-km resolution from British Columbia to Manitoba (135-96W) in the west-east direction and from northern US to Arctic Ocean in the south-north direction (47-69N). The data is stored in Compute Canada server.

WRF-CONUS I: a high-resolution climate change simulation that permits convection and resolves mesoscale orography at 4 km grid spacing over about 2/3rds of North America using the WRF model. Two 13 years simulations were performed, consisting of a retrospective simulation (October 2000 to September 2013) with initial and boundary conditions from ERA-Interim and a future climate sensitivity simulation with initial and boundary conditions derived from reanalysis and modified by adding the CMIP5 ensemble mean of the high emission scenario climate change. Simulation period: 2000-10-01 to 2013-09-30. The data is stored in Compute Canada server.

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Zwiers FW, Zhang X. 2018. Synthesis of key issues and challenges - Urban/Coastal/Riverine Flood and Climate Change. In International workshop on floods and climate change: Codes and standards perspective, Attar, A., Z. Lounis and M. Armstrong, Eds., National Research Council, Ottawa.

#### **Graduate and Undergraduate Theses (under project investigator supervision)**

Almonte J. 2018: Precipitation transition regions over the southern Canadian Cordillera under a warming climate. MSc, University of Manitoba.

Amir-Masoud Chegoonian, PhD comprehensive exam document, Fall 2018.

Arman Khorshidi (2019). An analysis of soil respiration in a young conifer forest (B.Sc. thesis). McMaster University, Hamilton, Canada.

Arman Khorshidi (2019). An analysis of soil respiration in a young conifer forest (B.Sc. thesis). McMaster University, Hamilton, Canada.

BES Honours Undergraduate thesis: Babaran, D. 2018. The adoption of VEC monitoring and multivariate analysis on the Blair Creek sub-watershed as a model for CEA. Bachelor of Environmental Studies Honours Thesis. School of Environment, Resources and Sustainability, University of Waterloo, Waterloo, ON.

Brandow, Danielle (2018). Country Food Consumption Notices: Assessing Awareness and Preferences of Health and Risk Communication Messages in the Sahtú Region of the



- Brett Tendler “Analysis of Metal Contaminants and Mercury Speciation in Fishes from the Slave and Athabasca Rivers” (submitted for Defense)
- Burchill C. 2019. Paleolimnological reconstruction past hydrologic conditions at lakes of local interest in the Peace-Athabasca Delta. BA Honours Thesis (Geography and Environmental Studies WLU).
- Burton, E. Undergraduate Thesis in Department of Biology under supervision of Prof Mark Servos and Patricija Marjan, entitled “Optimization of brook trout (*Salvelinus fontinalis*) environmental DNA collection methods”.
- Daniel Wu (2019). Evaluating impacts of thinning in a temperate pine forest using CLASS-CTEM Model (B.Sc. thesis). McMaster University, Hamilton, Canada.
- Daniel Wu (2019). Evaluating impacts of thinning in a temperate pine forest using CLASS-CTEM Model (B.Sc. thesis). McMaster University, Hamilton, Canada.
- Emily Ogden. Honours BSc thesis. Variation among land classification units in the NWT.
- Faber J. in progress. Developing baseline knowledge of water and metals supplied by the Peace River to the Peace-Athabasca Delta, northern Alberta, using paleolimnology. MSc (Geography and Environmental Studies WLU).
- Fung, Leicester (2019). Mercury Exposure Analysis Amongst Dene and Métis Community of the Northwest Territories. MSc Thesis. UWSpace.  
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- Glass, B. (2019). Examining Hydrogeological Processes in Freezing Soils using Remote Geophysical and Numerical Techniques. MSc. thesis. UWSpace. <http://hdl.handle.net/10012/14466>
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- Grant, K. (2018). Preferential flowpaths and fertilizer placement influence subsurface P transport across soil textures and seasonal conditions. University of Waterloo (Supervisor: Merrin Macrae).
- Green, A. (2019). Microclimatic Effects of Forest to Peatland Transitions within the Boreal Plains. UWSpace.
- Guo, L. (2018). Simulating Farmer Adoption of Agricultural Best Management Practices in the Upper Medway Creek Subwatershed. Masters Thesis. University of Waterloo. (Supervisor: Peter Deadman).
- Harder, P. (2018) Stubble-Snow-Soil-Atmosphere interactions on the Canadian Prairies. PhD Thesis. University of Saskatchewan (Supervisors: John Pomeroy and Warren Helgason)
- Harder, P. (2018). Snow-stubble-atmosphere interactions during snowmelt on the Canadian Prairies. University of Saskatchewan.

- Haskell B. 2019. Tracking the influence of hydrological processes on concentrations of priority pollutants in periphyton biofilm across lakes in the Peace-Athabasca Delta. BSc Honours Thesis (Biology UW).
- Honours Undergraduate thesis: Goe, Y. 2019. Identification of Algal Bloom Indicators Using Principal Component Analysis. Department of Earth and Environmental Science, University of Waterloo, Waterloo, ON.
- Honours Undergraduate thesis: Grootjen, T. 2019. Reservoirs as hotspots for legacy phosphorus mobilization: A modelling approach. Bachelor of Applied Mathematics with Minor in Earth and Environmental Sciences, University of Waterloo, Waterloo, ON.
- Jan 2018 McDonald, Wade. Agent Based Modelling of Flooding in Two Indigenous Communities in Saskatchewan, (Computer Science- Supervisor: Nate Osgood).
- Jan 2018 Thapa, Anuja. A Participatory Approach to Enhance and Measure Social Learning for Flood Preparedness: An Exploratory Study in Mistawasis Nêhiyawak
- Jasiak I. in progress. Defining a legacy pollution footprint: assessing spatio-temporal patterns of arsenic and other metals in sub-arctic lakes using paleolimnology. MSc (Biology UW).
- Jennifer Bruneau (2019): Future Changes in Convective Precipitation and Severe Weather Environment in Western Canada and the Central U.S. Plains.
- Jitnikovitch. 2018. Cosmic ray sensors for the continuous measurement of Arctic snow accumulation and melt. MSc Thesis, Wilfrid Laurier University.
- Julie Trus. Honours BSc thesis. Biotic and abiotic controls on moss composition in the NWT.
- Kay M. in progress. Paleolimnological reconstruction of past hydrological conditions and metal deposition in the Athabasca Delta, northern Alberta. PhD (Biology UW).
- Khan H. 2019. Investigating past changes in water balance of two small central closed-drainage lakes in the Peace-Athabasca Delta using paleolimnological methods. BSc Honours Thesis (Biology UW).
- Klemt W. 2018. Developing pre-industrial baselines from floodplain lake sediment cores to quantify the extent of metals pollution within the Alberta Oil Sands Region. MSc (Biology UW).
- Klemt, Wynona. MSc Thesis, 2018. "Developing pre-industrial baselines from floodplain lake sediment cores to quantify the extent of metals pollution within the Alberta Oil Sands Region". <https://uwspace.uwaterloo.ca/handle/10012/14181>
- Krogh Navarro, S. (2018). Past and Future Hydrology Near the Arctic Treeline. University of Saskatchewan.
- Krogh Navarro, S. (2018). Past and Future Hydrology Near the Arctic Treeline. University of Saskatchewan
- Laird, Matthew (2017). Dietary Exposure Assessment and Contaminants Biomonitoring in the Dehcho Region, Northwest Territories: Exploring the Relationship between Mercury Exposure, Omega-3 Fatty Acid Status, and Fish Consumption. MSc Thesis. <https://uwspace.uwaterloo.ca/handle/10012/12673>
- Leroux, N. (2018). Mass and Heat Flow Through Snowpacks. University of Saskatchewan.
- Leroux, N. (2018). Mass and Heat Flow Through Snowpacks. University of Saskatchewan

- Leroux, N. (2018). Mass and Heat Flow through Snowpacks. University of Saskatchewan.
- Liu E. Undergraduate Thesis in Toxicology Centre under supervision of Prof John Giesy and Yuwei Xie, entitled "Application of environmental DNA metabarcoding for determining community responses of sedimentary protozoa to Selenium in a freshwater mesocosm study".
- Masters' thesis: Chowdhury, Q.S. 2018. Biogeochemical Signatures in Intensively Managed Great Lakes Watersheds, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON.
- Masters' thesis: Samson, M. 2019. The Urban Metabolism of the Greater Toronto Area: A Study of Nitrogen and Phosphorus across an Urban, Suburban, and Rural Continuum Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON.
- McKenzie, Shawn (2019).- Integration of Eddy Covariance Fluxes, Tree Ring Records and Stable Isotope Compositions to Study Environmental Controls on Growth in Different-Age Pine Plantation Forests (Doctoral dissertation). McMaster University, Hamilton, Canada.
- McKenzie, Shawn (2019).- Integration of Eddy Covariance Fluxes, Tree Ring Records and Stable Isotope Compositions to Study Environmental Controls on Growth in Different-Age Pine Plantation Forests (Doctoral dissertation). McMaster University, Hamilton, Canada.
- Mercer J. 2018. Insights into mountain wetland resilience to climate change: an evaluation of the hydrologic processes contributing to the hydrodynamics of alpine wetlands in the Canadian Rocky Mountains, MSc thesis, University of Saskatchewan, 120 pp.
- Mihalicz, J. (2018). Effects of a hydropeaking dam on river health and benthic macroinvertebrate secondary production in a northern Great Plains river. University of Saskatchewan.
- Mollaei, S. (2018). Estimation of Phytoplankton Chlorophyll-a Concentration in the Western Basin of Lake Erie Using Sentinel-2 and Sentinel-3 Data. University of Waterloo.
- Neary L. in progress. Characterizing carbon balance of lakes in the Peace-Athabasca Delta using isotopic methods. MSc (Biology UW).
- Owca T. in progress. Determining sources, pathways and spatial distribution of metals in lakes of the Peace-Athabasca Delta from concentrations in surface sediment. MSc (Geography and Environmental Studies WLU).
- Paul, J (2018) Near-surface permafrost ground ice characteristics and ecological and physical drivers of transient layer ice content in discontinuous permafrost. MSc Dissertation, Wilfrid Laurier University. <https://scholars.wlu.ca/etd/2097/>
- Qin, K. (2019). Analysis of Groundwater Recharge Events in Winter and Early Spring to Establish Physical Triggers for a Reactive Monitoring System in the Mannheim Site. University of Waterloo.
- Rayhan Ferdous. Workflow Provenance: from Modeling to Reporting. MSc Thesis in the Department of Computer Science, University of Saskatchewan. Co-supervisors: Banani
- Remmer C. in progress. Use of water isotope tracers and periphyton for tracking hydrological and hydroecological conditions of lakes in the Peace-Athabasca Delta: A foundation for hydrological monitoring. PhD (Biology UW).

- Riley Mills. Influence of Snow Cover on Soil Temperature and Freeze-Thaw Cycles. Undergraduate Honours Thesis. University of Waterloo, April 2019.
- Rokaya P. (2018). Impacts of climate and regulation on ice-jam flooding of northern rivers and their inland deltas. University of Saskatchewan
- Ronnquist. A. 2018. Persistence of beaver dams through the Alberta flood of 2013, BSc thesis, University of Saskatchewan, 26 pp.
- Rossi R. 2019. Paleohydrological reconstruction of 'Spruce Island Lake', a drying basin in the Peace-Athabasca Delta, Alberta. BSc Honours Thesis (Biology UW).
- Roy, Chanchal Roy and Kevin Schneider. Telford J. 2019. Using paleolimnology to establish baseline conditions for metal contaminants in advance of proposed mining to inform a northern community-led aquatic monitoring program, Tłıchǫ Lands, Northwest Territories, ıchǫ Government Canada. MSc (Geography WLU).
- Savage C. in progress. Periphyton as a bio-monitoring agent of metal contaminants of concern in the Peace-Athabasca Delta. MSc (Biology UW).
- Siyu Cheng, Comparison of baseflow estimation methods at the Alder Creek Watershed and nearby streams
- Sotoodeh Mollashahi, E. (2019). Improving Revisitation in Long Documents with Two-Level Artificial-Landmark Scrollbars, University of Saskatchewan.
- Telford J. 2019. Using paleolimnology to establish baseline conditions for metal contaminants in advance of proposed mining to inform a northern community-led aquatic monitoring program, Tłıchǫ Lands, Northwest Territories, Canada. MSc (Geography and Environmental Studies WLU).
- Ten Watts "Occurrence and In Vitro Toxicity of Unregulated Disinfection By Products in Two Saskatchewan Drinking Water Treatment Plants.
- van Beest, C. (2019). Deeper Burning Increases Available Phosphorus, Promotes Moss Growth, and Carbon Dioxide Uptake in a Fen Peatland One-Year Post-Wildfire in Fort McMurray, AB. UWSpace. <http://hdl.handle.net/10012/14429>
- Vanessa McFadden (2019): Étude de la tempête de verglas de janvier 2017 ayant causée des pannes de courants majeurs dans la province du Nouveau-brunswick.
- Wang X. Automated Detection of Anomalies in High-Frequency Water Quality Sensor Data using Deep Learning [Master's Thesis]. [Hamilton, Ontario, Canada]: McMaster University, Department of Computing and Software; 2019, submitted.
- White, A (2018). Drivers of post-fire vascular plant regeneration in the conifer-dominated boreal forest of southern Northwest Territories. MSc Dissertation, Wilfrid Laurier University. <https://scholars.wlu.ca/etd/2026/>
- Whitehouse, J. 2019. Determining the Effectiveness of Biomanipulation on a Northern Pike (*Esox lucius*) Population on Lowering Total Mercury Concentrations in Fish Tissue. University of Waterloo Undergraduate Thesis. Supervisors: Heidi Swanson (University of Waterloo) and Heather Dixon (Wilfrid Laurier University)



Yamaguchi, A. 2018-2020. Trophic and biogeochemical dynamics of mercury in two fishery lakes in the Northwest Territories (MSc thesis, Laurier). Supervisors: D MacLatchy & H. Swanson (UWaterloo).

Yan Y. Anomaly Detection for Water Quality Data [Master's Thesis]. [Hamilton, Ontario, Canada]: McMaster University, Department of Computing and Software; 2019, submitted.

### Conference Presentations (Invited, Plenary, Keynote)

Arain M.A. (2018, November 5). McMaster Global Water - International Threats. Oral presentation at the meeting of the Office of International Affairs and The McMaster Water Network, Hamilton, ON, Canada.

Arain M.A. (2018, November 5). *McMaster Global Water - International Threats*. Oral presentation at the meeting of the Office of International Affairs and The McMaster Water Network, Hamilton, ON, Canada.

Arain M.A. (2018, October 24-25). Carbon and Water Exchanges in Managed Forests in North American Cold Regions. Oral presentation at the meeting of the Ameriflux Pls, Bloomington, IN, USA.

Baltzer, J (2018) Experiences from the field: an ecologist's perspective on data management and open data. Plenary Talk, Tri-council Research Data Management Workshop, Waterloo, ON

Baltzer, J (2018) Understanding the impacts of the 2014 wildfires on NWT forests. Government of the Northwest Territories "Ledge Talk". Yellowknife, NT

Baltzer, J and Swanson, H (2018) Northern Canada – regional issues and Global Water Futures' scientific response. Plenary Talk, Global Water Futures Annual Scientific Meeting. Hamilton, ON

Baltzer, JL, Sonnentag, O (2018) Climate-change refugia in boreal North America: what, where, and for how long? Northern and permafrost issues. Invited talk, Boreal Climate Change Refugia Workshop, Canadian Forest Service, Edmonton, AB

Baltzer, JL. 2018. State changes following fire in boreal forests are driven by seedbed conditions and biogeographic context. Invited seminar. Umeå University, Sweden.

Basu, N. and Van Meter, K.J. (2019). Beyond the Mass Balance: A Process Based Approach to Modelling Legacy Phosphorus Dynamics. Association for the Sciences of Limnology and Oceanography Conference, San Juan, Puerto Rico, Feb 2019.

Basu, N. B., and Van Meter, K.J. (2018). Changing Waters: Role of Climate-Driven Changes in Discharge Regimes in Increasing Eutrophication Risk in the Great Lakes Basin. American Geophysical Union, December 10-14, 2018, Washington D.C.

Basu, N.B. (2018). Back to the Future: How Past Land Use Impacts Current Water Quality. Invited Speaker for SENR Seminar Series, Ohio State University, November 2018, Columbus, OH.

Basu, N.B. (2018). Biogeochemical Hotspots: Role of Small Water Bodies in Watershed Nutrient Processing, Webinar on Wetlands: From Science to Action organized by Canadian Freshwater Alliance, September 25, 2018 ([https://www.freshwateralliance.ca/fresh\\_ideas\\_wetlands](https://www.freshwateralliance.ca/fresh_ideas_wetlands))

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- Basu, N.B. (2018). Great Lakes and Water Quality: A Regional Perspective. Plenary talk at the Global Water Futures Annual Science Meeting, Hamilton, ON
- Basu, N.B. (2019). A Race against Time: Nutrient Legacies and Time Lags Provide New Insight into Improving Water Quality in Human-Impacted Landscapes. Invited Speaker at SESYNC Seminar, March 2019, Annapolis, MD.
- Basu, N.B. (2019). Signatures of Human Impact: Legacies, Climate Change and the Future of our Waters. Keynote Speaker, Borland Hydrology Lecture, AGU Hydrology Days, March 2019, Fort Collins, CO.
- Basu, N.B. (2019). Signatures of Human Impact: Legacies, Climate Change and the Future of Our Waters. Invited speaker for Stanford Woods Seminar, February 2019, Stanford, CA.
- Basu, N.B. and Van Meter, K.J. (2018). Landscape Legacies: Long term Nitrogen Trajectories in Human Impacted Watersheds, Canadian Geophysical Union, June 2018
- Basu, N.B. and Van Meter, K.J. (2018). Landscape Legacies: Long-Term Nitrogen Trajectories in the Mississippi River Basin and Beyond, Sixth Interagency Conference on Research in Watersheds (ICRW), July 23-26th, 2018, at the National Conservation Training Center (NCTC), Shepherdstown, West Virginia
- Basu, N.B. and Van Meter, K.J. (2018). Modelling Nutrient Legacies and Dynamics in Human Dominated Landscapes, Invited Keynote Speaker, Integrated Hydrosystems Modeling, University of Tübingen, Tübingen, Germany.
- Basu, N.B. and Van Meter, K.J. (2018). Nutrient Legacies in Anthropogenic Catchments: Implications for Water Quality. Invited Lecture at Canada Center for Inland Waters, Environment and Climate Change Canada, Burlington, ON, May 4, 2018.
- Basu, N.B. and Van Meter, K.J. (2018). Nutrient Legacies in Anthropogenic Catchments: Implications for Water Quality. Invited Lecture at University of Illinois at Urbana Champaign, Urbana, IL April 20, 2018.
- Basu, N.B., Van Meter, K.J. and Van Cappellen, P. Landscape Legacies: Long-Term Nitrogen Trajectories in Human-Impacted Watersheds. Canadian Geophysical Union Joint Meeting, Niagara Falls, Canada, June 2018
- Basu, N.B., Van Meter, K.J., and Van Cappellen, P. (2018). Beyond the Mass Balance: Modeling Legacy Phosphorus Dynamics in a Great Lakes Watershed, American Geophysical Union 2018, Fall Meeting, Washington DC, USA
- Baulch, H. and Whitfield, C. (2018) Canadian Prairies – regional issues and Global Water Futures’ scientific response. Global Water Futures Inaugural Annual General Meeting. McMaster University, Hamilton, ON. June 6<sup>th</sup>. INVITED
- Baulch, H. and Whitfield, C. (2018) Canadian Prairies – regional issues and Global Water Futures’ scientific response. Global Water Futures Inaugural Annual General Meeting. McMaster University, Hamilton, ON. June 6<sup>th</sup>. Plenary.
- Belcher, K. (2018) Drivers and Resistors - Unpacking Land Use Decision Making Part 1. Finding Common Ground Between the Agricultural Industry and Wetland Policy, Prairie Habitat Joint Venture Policy Workshop, Leduc, Alberta, April 18<sup>th</sup>. INVITED

- Berg A, 2018. Soil moisture retrieval within an Arctic tundra regions: Challenges and progress. EUMETSAT Meteorological Satellite Conference. Tallinn, Estonia.
- Berg A. 2018. Soil freeze thaw field experiments for validation of passive microwave freeze thaw products. Finland Meteorological Institute. Helsinki Finland.
- Berg A. 2018. Global observations of frozen soils: what are we observing? Centre for Global Change Science, Distinguished Lecturer Series. University of Toronto.
- Berg A. 2018. Monitoring soil moisture in situ and using a variety of satellite sensors. Sino-American Technology and Engineering Workshop. Smart Water Management. Tinjin, China. Presentation and conference paper (11 pages).
- Berg A. 2018. Soil Freeze thaw field experiments in support of SMAP. NASA Jet Propulsion Laboratory. Pasadena, California.
- Berg A. 2018. Soil freeze thaw information from satellites: what are we observing? Department of Geography, York University Colloquium Speaker.
- Bradford - Invited Webinar to IISD Prairie Regional Adaptation Collaborative, November 22nd 2018
- Brouwer R., (2018) Invited key note on the economics of sustainable groundwater resources management, Brazil National Groundwater Association (ABAS), Sao Paulo, Brazil, 6 November 2018.
- Brouwer R., (2018) Invited key note, First International Water Security Conference, Toronto, Canada, June 20, 2018.
- Brouwer R., (2018) Invited key note, UN High-Level Political Forum on Sustainable Development, United Nations, New York, July 13, 2018.
- Brouwer, R. (2018). Economic, modelling and valuation of water security. 1st International Conference on Water Security, June 20, 2018, Toronto, ON.
- Brouwer, R. Economics of sustainable groundwater resources management. Brazil National Groundwater Association (ABAS), Sao Paulo, Brazil, 6 November 2018. Invited keynote.
- Brouwer, R. First International Water Security Conference, Toronto, Canada, 20 June 2018. Invited keynote.
- Brouwer, R. Invited key note on the economics of sustainable groundwater resources management, Brazil National Groundwater Association (ABAS), Sao Paulo, Brazil, 6 November 2018.
- Brouwer, R. Invited key note UN High-Level Political Forum on Sustainable Development, United Nations, New York, 13 July 2018.
- Brouwer, R. UN High-Level Political Forum on Sustainable Development, United Nations, New York, 13 July 2018.
- Carey SK. Water and Canada's extractive industries: challenges and opportunities. Public talk to United Nations University – INWEH Another Drop lecture. October 2018.
- Carey SK. Water in the Changing North. Dr. John Rae talk given to the Hamilton Association for the Advancement of Literature, Science and Art. January 2018.

- Chow-Fraser, Patricia. "Reflections of an ecologist in co-creation of Indigenous tools for ecosystem monitoring", Environmental Studies seminar, University of Victoria. 10 October 2018.
- Conference Pres Arain M.A. (2018, October 24-25). *Carbon and Water Exchanges in Managed Forests in North American Cold Regions*. Oral presentation at the meeting of the Ameriflux Pls, Bloomington, IN, USA.
- Craig P.M. The cost of living in the Grand River: Energetics, stress, and epigenetics/ Invited Speaker, Laurentian SETAC Southern Ontario Pub night, Guelph, ON. May 1st, 2019
- Craig P.M. Troubled waters ahead: The cost of living in the Grand River. Invited lecture, Trent University, March 2019.
- Craig, P. The role of microRNA regulation on phenotypic responses to environmental stressors in fish. American Physiology Society Intersociety Meeting: Complexity and Integration, New Orleans in October 2018.
- Day NJ, Cumming S, \*Degré-Timmons G, Johnstone J, Gruel R, Mack M, McIntire E, Reid K, Schmiegelow F, Turetsky M, Walker X, \*White A, & Baltzer J. (2018). Impacts of Wildfire Extent and Severity on Caribou Habitat: from woodland to barren ground. Northwest Territories Cumulative Impacts Monitoring Environmental Research and Monitoring Workshop 5-6 December, Yellowknife, Northwest Territories, Canada.
- Debasish Chakraborti, Banani Roy, Mani Shankar Mondal, Ralph Deters, Chanchal K. Roy, Kevin A. Schneider. A Data Management Scheme for Micro-Level Modular Computationintensive Programs in Big Data Platforms. Presented at the third International Symposium on Big Data Management and Analytics (BIDMA'18). (presented, appeared as Springer book chapter).
- Degré-Timmons, G. and J. Baltzer. (2018). How resilient are northern ecosystems to climate change? – A burning topic from Northwest Territories, Canada. Public presentation, Young emerging leaders program, Arctic Frontiers, Bodø, Norway.
- Duguay, C., 2018. Advancing the retrieval of lake ice and sea ice parameters from satellite and ground-based measurements. EUMETSAT, Darmstadt, Germany, 6 December 2018.
- Duguay, C., 2018. Satellite retrieval of lake ice cover extent and thickness: Advances and opportunities in the era of Sentinel-3. *2018 EUMETSAT Meteorological Satellite Conference*, Tallinn, Estonia, September 2018.
- Duguay, C., 2019. Advancements in the retrieval of lake ice cover extent and thickness from satellite observations. ECMWF, Reading, United Kingdom, 15 February 2019.
- Elliott, J. Nutrient sources and agricultural management practices. Lake Winnipeg Basin Symposium, February 20-21, 2019. Winnipeg, MB. Invited Presentation.
- Elliott, J. Using soil science to understand agricultural impacts on surface water resources in cold regions. Department of Soil Science, University of Saskatchewan, January 16, 2019. Saskatoon, SK. Invited Presentation.
- Elliott, J. Vegetation contributions to snowmelt runoff and runoff patterns in Manitoba. AAFC, Lake Winnipeg Meeting, July 17, 2018. Brandon, MB. Invited Presentation.



- Elmes, MC, & Price, JS. 2018. Hydrogeological connectivity of a moderate-rich fen watershed in the Athabasca Oil Sands Area of the Western Boreal Plain, northern Alberta, World Wetlands Day, University of Waterloo, Waterloo, ON.
- F. Rezanezhad, C. Smeaton, K. Pi, and P. Van Cappellen. The impact of warmer winter on soil health and water quality in Cold Regions? A seminar at the Cold Regions Ecohydrogeology (COREH) workshop in Harbin, China, April 30, 2019 (a new research collaboration funded by Waterloo International Research Partnership Grant and China University of Geosciences)
- F. Rezanezhad. Soil Science Research Projects and Activities at University of Waterloo, Canada. Presented to Soil and Solid Waste Institute of Environment at Chinese Research Academy of Environmental Sciences. April 2, 2018, Beijing, China. (In this invited talk, Dr. Rezanezhad presented the GWF Winter Soil Processes in Transition Project)
- Ferguson, G. (2018) Hydrogeological Lessons Learned from Deep Subsurface Development of the Williston Basin, Canada. Invited Lecture to International Association of Hydrogeologists - Australian National Chapter. April 8, 2017, Sydney, Australia. INVITED
- Ferguson, G. 2018. Fluid production for geothermal energy. Northwest Territories Geothermal Energy Forum. Yellowknife, NWT. November 23, 2018.
- Ferguson, G. 2018. The groundwater-energy nexus in sedimentary basins. University of Illinois, Champaign, Illinois, November 2, 2018.
- Ferguson, G. 2018. The Race for Groundwater. World Water Day 2019. University of Saskatchewan, Saskatoon, SK. March 22.
- Ferguson, G. 2019. Bottom up groundwater depletion. University of Texas. Austin, Texas. April 12, 2019.
- Flannigan, 2018, Educated Luncheon: How will we manage wildfires in the future?. April 17, 2018 12:00 PM - 1:00 PM Maple Leaf Room Lister Conference Centre University of Alberta, Edmonton, Canada.
- Flannigan, M. 2018. 1:00 PM [https://zoom.us/webinar/register/WN\\_dgdLZps1QmK\\_rwDEUoMf7g](https://zoom.us/webinar/register/WN_dgdLZps1QmK_rwDEUoMf7g), Canada.
- Flannigan, M. 2018. Change for Climate Talks. Change for Climate Talks 2018 by City of Edmonton - Change for Climate <https://www.eventbrite.ca/e/change-for-climate-talks-2018-tickets-49139734268>, Edmonton, Canada.
- Flannigan, M. 2018. Climate Change and Fire. Gave a webinar to the Dept. of Environment and Natural Resources, Northwest Territories., Edmonton, Canada.
- Flannigan, M. 2018. Climate Change and Wildfire - How will we manage wildfires in the future?. 2018 SISCO Winter Workshop, Kamloops, Canada.
- Flannigan, M. 2018. Climate Change and Wildfire - How will we manage fire in the future?. CIF-IFC 110th AGM & Conference, Grande Prairie, Canada.
- Flannigan, M. 2018. Climate Change: Wildland Fire and Water. IBAA 2018 Convention, Banff, Canada.
- Flannigan, M. 2018. Fire is coming our way. Wildfire & Climate Change Conference. June 26-June 28, 2018, Nelson, Canada.

- Flannigan, M. 2018. Future of Wildfires. Alumni Spring Reception - Lethbridge, Lethbridge, Canada.
- Flannigan, M. 2018. How will we manage wildfires in the future? Visit with fellow alumni and learn how wildland fire research and artificial intelligence might protect communities from future wildfire devastation. 22nd Annual Arizona Brunch, Phoenix, United States.
- Flannigan, M. 2018. How will we manage wildfires in the future?. Monday July 16th at Intact Insurance, Calgary, Canada.
- Flannigan, M. 2018. How will we manage wildfires in the future?. Vancouver Alumni & Friends Brunch and Silent Auction Sunday, April 29, 2018 10:30 a.m. – 1:00 p.m., Vancouver, Canada.
- Flannigan, M. 2018. How will we manage wildland fires in the future?. Monday July 20th Edmonton at Intact Insurance, Edmonton, Canada.
- Flannigan, M. 2018. Long range wildfire forecast for Canada – Hot and smoky? Is this the new reality?. ICLR webinar.
- Flannigan, M. 2018. Long range wildfire forecast for Canada-Hot and Smoky? Is this the new Reality?. 2018 AEMA Stakeholder Summit, Edmonton, Canada.
- Flannigan, M. 2018. Overview of Global Forest Fire and Climate Change. Forest Fires Global Expert Workshop VIENNA, AUSTRIA, 2-4 JULY 2018, Vienna, Austria.
- Flannigan, M. 2018. The Climate Change Altered Wildland Fire Regime for Canada in the 21st Century: Possible Implications. Preparing for the Future of Wildland Fire Conference. May 21-24, 2018, Missoula, United States.
- Flannigan, M. 2018. Weather, Climate Change and Fire - Is this the new reality?. BC AI Wildfire symposium 2018, Vancouver, Canada.
- Golam Mostaeen, Banani Roy, Chanchal K. Roy and Kevin A. Schneider. Designing for Real-Time Groupware Systems to Support Complex Scientific Data Analysis. In Proc. Of the 11th ACM SIGCHI Symposium on Engineering Interactive Computing Systems, June, 2019 - Valencia, Spain (accepted and to be presented, article will be published in ACM on Human-Computer Interaction)
- Haghnegahdar A., (2018), System Identification and Sensitivity/Uncertainty Analysis in Science and Engineering, School of Civil Engineering, Shiraz University, Shiraz, Iran, September 1st, 2018.
- Hanesiak, J., Future Hail and Severe Weather Environment in southern Canada, CatIQ Connect Canada's Catastrophe Conference, Metro Toronto Convention Centre, February 4 - 6, 2019.
- Hayashi: National Groundwater Association (NGWA) Henry Darcy Distinguished Lecture: “Alpine hydrogeology: the critical role of groundwater in sourcing the headwaters of the world” (see the appendix below for locations and dates). All of these were invited lectures, and some of them were key note lectures at scientific meetings.
- Hecker, M “eDNA as an Early Detection Tool for the Potential Spread of Zebra Mussels (*Dreissena polymorpha*) to Saskatchewan Lakes.” Invited Keynote Presentation at the Annual Convention of the Saskatchewan Wildlife Federation. Prince Albert. March 9, 2018.


- Hecker, M, "eDNA as an Early Detection Tool for the Potential Spread of Zebra Mussels (*Dreissena polymorpha*) to Saskatchewan Lakes." Presentation to Saskatchewan Environment Aquatic Invasive Species Task Force. Saskatoon. January 19, 2018.
- Hecker, M, "Environmental DNA: A novel approach to characterize biodiversity." Presentation to Orano (former AREVA) Resources. February 27, 2018.
- Jawed, Z. (2018). Panelist Sustainability Night at McMaster University. November 2018.
- Jennifer Bruneau (2019): Future Changes in Convective Precipitation and Severe Weather Environment in Western Canada and the Central U.S. Plains.
- Krantzberg, G. (2018). Governance challenges for a resilient Great Lakes basin ecosystem. Keynote ELLS-IAGLR Conference, Lake Geneva, France, September 2018
- Krantzberg, G. (2018). If we really aren't sure can we take action? International Association for Great Lakes Research. June 18-22, 2018.
- Leroux NR, Pomeroy JW, (2018). Improving the simulation of capillary pressure in snow with a non-equilibrium Richards equation model. International Symposium on Snow and Avalanche, Niseko, Japan, December 7, 2018
- Leroux NR, Pomeroy JW, (2018). Improving the simulation of capillary pressure in snow with a non-equilibrium Richards equation model. International Symposium on Snow and Avalanche, Niseko, Japan, December 7, 2018.
- Leroux NR, Pomeroy JW. 2018. Improving the simulation of capillary pressure in snow with a non-equilibrium Richards equation model. International Symposium on Snow and Avalanche, Niseko, Japan, December 7, 2018
- Leroux, N.R., Pomeroy, J.W., 2018. Improving the simulation of capillary pressure in snow with a non-equilibrium Richards equation model. International Symposium on Snow and Avalanche, Niseko, Japan, December 7, 2018.
- Leroux, N.R., Pomeroy, J.W., Helgason, W.D., 2018. Impact of Heat Convection Induced by Topography-Driven Air Ventilation on Snow Surface Temperature. Paper presented at 75th Eastern Snow Conference (pp.20-26).
- Liu J. 2018. Agricultural phosphorus and water quality: Drivers and solutions. Shaanxi Province's Young Scholars' Science-Technology Forum, September, 2018. Yangling, China (Invited)
- Liu J., Baulch H., and Elliott J. 2018. Agricultural water quality in Canadian prairies. Annual Convention – Pillars of Agrology: Water for All, Prince Albert, Canada (Invited)
- Liu J., H.Baulch, and J. Elliott. Agricultural water quality in Canadian prairies. Saskatchewan Institute of Agrologists Annual Convention – Pillars of Agrology: Water for All, April 11, 2018. Prince Albert, SK. Invited Presentation.
- Liu J., J. Elliott, H. Baulch and H.Wilson. Controls of nitrogen to phosphorus ratios in a Canadian prairie watershed. Global Water Futures 1st Annual General Meeting. Jun. 4-6, 2018. Hamilton, ON. Invited Presentation.
- Looking Horse, Makasa. "Digital Water Storytelling and TEK", World Water Day 2019, Water Institute Waterloo. 22 March 2019.
- Loring. P.A., Baulch, H., Breen. S-P. (2018). Plenary Panel: Water Governance, a Prairie Perspective. 30th Annual Meeting of the Canadian Rural Revitalization Foundation. 12

October, 2018. Saskatoon, SK. Video here:  
[https://www.youtube.com/watch?v=uPI\\_53EdFMQ](https://www.youtube.com/watch?v=uPI_53EdFMQ)

- Macrae, M.L., Jarvie, H.P., Smith, D.R., King, K.W., and Kleinman, P.J.A. Role of P in Water Quality Impairment across Latitudes. (Invited). Soil Science Society of America International Soils Meeting. January 6-9, 2019, San Diego, USA. (Oral presentation).
- Mantyka-Pringle C, Messmer D, Leston L, Asong E, Bayne E, Bortolotti L, Sekulic G, Wheeler H, Howerter D & Clark R. (2018) Interaction Effects of Climate Variability and Change and Land-use on Avian and Aquatic Invertebrate Communities. Paper to be presented at the North American Congress for Conservation Biology, July 21-26, Toronto, Ontario, Canada 2018
- Mantyka-Pringle C. (2018) Ghosts of climate and land-use past or present – antagonistic, synergistic and direct effects of aquatic communities. Invited talk (fully supported) at the Annual British Ecological Society Aquatic Group meeting, Sept 9, Imperial College, London, UK. INVITED
- Mantyka-Pringle C. (2018) Interactions between Climate Variability and Change and Land-use on Aquatic Ecosystems. Invited talk (fully supported) at the Annual British Ecological Society Aquatic Group meeting, Sept 9, Imperial College, London, UK. INVITED
- Mantyka-Pringle C. (2018) Multiple stressors in freshwater and terrestrial ecosystems – State of the art. Invited plenary talk (fully supported) at the StressNet – Scientific workshop for the advancement of multiple stressor models and databases, Sept 13-15, University Koblenz-Landau, Landau, Germany, 2018. INVITED
- Marjan, P. Environmental DNA (eDNA) of Brook Trout in Washington Creek. Trout Unlimited Middle Grand Chapter Annual General Membership Meeting, Five Oaks Centre, Brantford, Ont. January 26, 2019. *Invited Keynote speaker at a meeting of key partners.*
- Martin-Hill, Dawn, Denise McQueen, Makasa Looking Horse. “Resilience building through Ecological Knowledge Digital Stories”, McMaster Indigenous Health Movement Conference, McMaster University. 2 February 2019.
- Martin-Hill, Dawn. “Haudenosaunee Women’s Water Law”, Indigenous Spirituality and Freedom of Religion for Ktunaxa, Faculty of Law, University of Windsor. 22 March 2019.
- Martin-Hill, Dawn. “How to integrate IK in water research”, Elevating Community-Based Water Monitoring in Canada: A National Discussion, Ottawa. 27-28 November 2018.
- Martin-Hill, Dawn. “Indigenous science and ways of knowing”, GWF Inaugural Annual Science Meeting, McMaster University. 5 June 2018.
- Martin-Hill, Dawn. “Water: Our Spirit, Our Laws”, Association of Iroquois and Allied Indian, Niagara Falls. 23-24 January 2019.
- McIntosh, J.C. 2018. The Anthropocene in the Deep Subsurface. GIWS Distinguished Lecture Series, University of Saskatchewan. Saskatoon, SK. November 21, 2018.
- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018 Environment Canada, CCIW Burlington, “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.



- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018        Ontario Ministry of Environment, Parks and Conservation, annual Science Forum; “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018        Yigal Allon Kinneret Limnological Laboratory, Israel; “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Mora, M., Bradford, L., Reed, M., Bharadwaj, L. (2019) Gender and Water Governance in the Global North: A Scoping Review. Women and Water Lecture Series. February 11th. INVITED
- Nash, T. 2018. Future of wildfire management in Canada: An overview of the CIFFC horizon scanning and foresight report. CIFFC National Fire Management Conversation, Canada.
- Pinto R. , (2018), Invited key note on Spatial Optimization of Land and Water Conservation Priorities at the 3rd Singapore-Nanjing Eco HiTech International Water Environment Management Summit, Nanjing, China, 22-23 October 2018
- Pinto, R. Spatial Optimization of Land and Water Conservation Priorities. 3rd Singapore-Nanjing Eco HiTech International Water Environment Management Summit, Nanjing, China, 22-23 October 2018. Invited keynote.
- Pomeroy J, (2018). Extreme Hydrology, Climate Change and Water Futures in Canada. Insurance Brokers Association of Alberta (IBAA), Banff, Canada, May 6, 2018
- Pomeroy J, (2018). Extreme Hydrology, Climate Change and Water Futures in Canada. Insurance Brokers Association of Alberta (IBAA), Banff, Canada, May 6, 2018.
- Pomeroy J, (2018). Global Water Futures (GWF) RHP. GEWEX Hydroclimatology Panel (GHP) Meeting, Santiago and Portillo, Chile, October 24, 2018
- Pomeroy J, (2018). Global Water Futures for Alberta. Agri-Environmental Partnership of Alberta (AEPA) Advisory Committee Meeting, Edmonton, Canada, October 17, 2018
- Pomeroy J, (2018). Global Water Futures for Alberta. Agri-Environmental Partnership of Alberta (AEPA) Advisory Committee Meeting, Edmonton, Canada, October 17, 2018.
- Pomeroy J, (2018). Global Water Futures: Year One Progress. Integrated Modelling Program for Canada (IMPC) First Annual Meeting, Saskatoon, Canada, July 18, 2018
- Pomeroy J, (2018). How interactions between climate and vegetation impact hydrological processes in mountain headwater basins. Fourth Annual International Network for Alpine Research Catchment Hydrology (INARCH) Workshop, Portillo, Chile, October 25, 2018
- Pomeroy J, (2018). Impact of meteorological forcing data on snowpack and streamflow simulations in the Canadian Rockies. Fourth Annual International Network for Alpine Research Catchment Hydrology (INARCH) Workshop, Portillo, Chile, October 25, 2018
- Pomeroy J, (2018). Improving hydrologic process representations. Integrated Modelling Program for Canada (IMPC) First Annual Meeting, Saskatoon, Canada, July 18, 2018
- Pomeroy J, (2018). International Conference Plenary session: Agricultural Water Futures in an era of Changing Agriculture and Climate. International Conference and 69th International

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- Executive Council Meeting of the International Commission on Irrigation and Drainage, Saskatoon, Canada, August 12, 2018
- Pomeroy J, (2018). International Conference Plenary session: Agricultural Water Futures in an era of Changing Agriculture and Climate. International Conference and 69th International Executive Council Meeting of the International Commission on Irrigation and Drainage, Saskatoon, Canada, August 12, 2018.
- Pomeroy J, (2018). International Network for Alpine Research Catchment Hydrology (INARCH). GEWEX Hydroclimatology Panel (GHP) Meeting, Santiago, Chile, October 24, 2018
- Pomeroy J, (2018). Opening Plenary: Global Water Futures Program and its Science Contributions to GEWEX. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Pomeroy J, (2018). Opening Plenary: Global Water Futures Program and its Science Contributions to GEWEX. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018.
- Pomeroy J, (2018). Opening Plenary: Global Water Futures Program and its Science Contributions to GEWEX. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Pomeroy J, (2018). Rocky Mountain Water Supply Resilience and Vulnerability Evaluation. Alberta Innovates Water Innovation Program Forum, Edmonton, Canada, May 23, 2018
- Pomeroy J, (2018). The Global Water Futures Program and its National Water Forecasting and Prediction System for Canada. 3rd Kazakhstan-Canada Business Council Meeting, Ottawa, Canada, June 11, 2018
- Pomeroy J, (2018). The Global Water Futures Program and its National Water Forecasting and Prediction System for Canada. 3rd Kazakhstan-Canada Business Council Meeting, Ottawa, Canada, June 11, 2018.
- Pomeroy J, (2018). The role of integrating observation and prediction systems in generating data and learning from models - a hydrological and weather extremes perspective. Joint Young Earth System Scientists (YESS) and Young Hydrologic Society (YHS) Early Career Researcher (ECR) Workshop at the 8th Global Energy and Water Exchanges (GEWEX) Conference, Canmore, Canada, May 3, 2018
- Pomeroy J, (2018). The role of integrating observation and prediction systems in generating data and learning from models - a hydrological and weather extremes perspective. Joint Young Earth System Scientists (YESS) and Young Hydrologic Society (YHS) Early Career Researcher (ECR) Workshop at the 8th Global Energy and Water Exchanges (GEWEX) Conference, Canmore, Canada, May 3, 2018
- Pomeroy J. 2018. Extreme Hydrology, Climate Change and Water Futures in Canada. Insurance Brokers Association of Alberta (IBAA), Banff, Canada, May 6, 2018
- Pomeroy J. 2018. Global Water Futures (GWF) RHP. GEWEX Hydroclimatology Panel (GHP) Meeting, Santiago, Chile, October 24, 2018
- Pomeroy J. 2018. Global Water Futures for Alberta. Agri-Environmental Partnership of Alberta (AEPA) Advisory Committee Meeting, Edmonton, Canada, October 17, 2018

- Pomeroy J. 2018. How interactions between climate and vegetation impact hydrological processes in mountain headwater basins. Fourth Annual International Network for Alpine Research Catchment Hydrology (INARCH) Workshop, Portillo, Chile, October 25, 2018
- Pomeroy J. 2018. Impact of meteorological forcing data on snowpack and streamflow simulations in the Canadian Rockies. Fourth Annual International Network for Alpine Research Catchment Hydrology (INARCH) Workshop, Portillo, Chile, October 25, 2018
- Pomeroy J. 2018. International Network for Alpine Research Catchment Hydrology (INARCH). GEWEX Hydroclimatology Panel (GHP) Meeting, Santiago, Chile, October 24, 2018
- Pomeroy J. 2018. Opening Plenary: Global Water Futures Program and its Science Contributions to GEWEX. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Pomeroy J. 2018. Rocky Mountain Water Supply Resilience and Vulnerability Evaluation. Alberta Innovates Water Innovation Program Forum, Edmonton, Canada, May 23, 2018
- Pomeroy J. 2018. The role of integrating observation and prediction systems in generating data and learning from models - a hydrological and weather extremes perspective. Joint Young Earth System Scientists (YESS) and Young Hydrologic Society (YHS) Early Career Researcher (ECR) Workshop at the 8th Global Energy and Water Exchanges (GEWEX) Conference, Canmore, Canada, May 3, 2018
- Pomeroy, J. 2018. Opening Plenary: Global Water Futures Program and its Science Contributions to GEWEX. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Pomeroy, J. 2018. Rocky Mountain Water Supply Resilience and Vulnerability Evaluation. Alberta Innovates Water Innovation Program Forum, Edmonton, Canada, May 23, 2018.
- Pomeroy, J., 2018. Extreme Hydrology, Climate Change and Water Futures in Canada. Insurance Brokers Association of Alberta (IBAA), Banff, Canada, May 6, 2018.
- Pomeroy, J., 2018. Global Water Futures for Alberta. Agri-Environmental Partnership of Alberta (AEPA) Advisory Committee Meeting, Edmonton, Canada, October 17, 2018.
- Pomeroy, J., Wheeler, H. Baltzer, J., Baulch, H., Carey, S., Gober, P., Martz, L.W., Pietroniro, A., Rudolph, D.L., Stewart, R.E., Van Cappellen, P., and DeBeer, C. M. (2018). Global Water Futures - Translation of Transdisciplinary Observations, Science, and Predictions into Societal Action for Water and Climate Imperatives in Cold Regions. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Prof. Giesy made the following invited, plenary keynote presentation: "Environmental Forensics: What is it and What can it Do?" to the 1st Annual Science Meeting of the Global Water Futures Network, which was held in Hamilton, Ontario, Canada, June 6, 2018.
- Ratelle M, \*Fung L, Laird M, Laird BD. (2018) Cadmium and Mercury Exposure among Dene/Metis Communities of the Northwest Territories, Canada. International Society of Exposure Science-International Society of Environmental Epidemiology (ISES-ISEE) Joint Annual Meeting. Ottawa, Canada.
- Rayhan Ferdous, Banani Roy, Chanchal K. Roy and Kevin A. Schneider. Workflow Provenance for Big Data: From Modelling to Reporting. Presented at the third International Symposium

- on Big Data Management and Analytics (BIDMA'18). (Presented, appeared as Springer book chapter).
- Razavi, S. (2018), how can hydro-economic models help policy making?, 2018 International Conference and 69th IEC Meeting of the International Commission on Irrigation and Drainage, side event organized by FAO on Hydroeconomic modelling for transboundary river basin management – Towards more integrated approaches. August 15, 2018, Saskatoon, Canada.
- Razavi, S., (2018), Integrated Modelling and Management of Watershed Systems Under Uncertainty, Canadian Water Science Workshop, November 27-28, 2018 in Ottawa, Ontario. [http://gin.gw-info.net/service/api\\_ngwds:gin2/en/workshop/rncan-gwf\\_nrcan-gwf/workshop.html](http://gin.gw-info.net/service/api_ngwds:gin2/en/workshop/rncan-gwf_nrcan-gwf/workshop.html).
- Razavi, S., (2019), Integrated Modelling and Sensitivity Analysis, Environment and Climate Change Canada Workshop on Flow Forecasting, Simon Fraser University, Feb 20-21, 2019.
- Robinne FN. Wildfires and soil hydrology. IUFRO - World Bank Global Fire Workshop. Vienne, Austria, July 2018.
- Rudolph, D. L. (2018). A Renaissance in Regional Hydrogeology: From Data to Modelling, Canadian Water Science Workshop, Global Water Futures – NRCan – ECCC – AAFC, Ottawa, Nov.
- Servos, M. Challenges and opportunities to address contaminants in wastewater. Swiss Federal Institute of Aquatic Science and Technology (Eawag), Zurich, Switzerland, May 25, 2018. Invited Seminar.
- Servos, M., One fish, two fish, boy fish, girl fish? The recovery of adverse effects in fish in response to major wastewater infrastructure upgrades in Canada. Distinguished Lecturer Series, Swiss Federal Research Institute for Aquatic Science and Technology (Eawag), Zurich, Switzerland, Feb. 22, 2019.
- Strickert, G.E.H. (2018) Relationships: Building a Strong Foundation. Saskatchewan Emergency Planners Association. Saskatoon, Saskatchewan, November 7th, 10:30 - 12:00pm. INVITED
- Strickert, G.E.H. and Jardine, T. (2018) Cultural and Environmental Flows; user engagement. Integrated Modelling Program for Canada. IMPC 2nd annual meeting, National Hydrology Research Center, Saskatoon, Saskatchewan. July 17, 11:05 – 11:20.
- Strickert, G.E.H., and Belcher, K., (2018). Understanding the social and economic drivers from a broad scale perspective. Prairie Habitat Joint Venture. The Kitchen Conversation: Finding Common Ground between Agricultural Industry and Wetland Policy. Session: Understanding Producer Decision Making. Le Duke, Alberta, April 19th, 8:45am.
- Swanson, H.K. (2018). We Want to Drink the Water and Eat the Fish: Community-Partnered Contaminant Research in Canada's North. Water Institute Research Conference, University of Waterloo.
- Swanson, H.K. (2018). We Want to Eat the Fish: investigating levels of mercury in northern fishes. Invited Lubinsky Memorial Public Lecture, University of Manitoba, Winnipeg, MB.



- Swanson, H.K. (2018). Why do fish in northern lakes have such variable mercury concentrations: case study from the Dehcho region, NT. Invited speaker for: Freshwater Institute Seminar Series, Winnipeg, MB.
- The Impact of OrbiTrap Technology on Environmental Chemistry, Paul Jones, Western Canadian Trace Organics Workshop, Vancouver BC, May 14-16, 2018.
- Turetsky, M. (2018). A cross-scale framework of peatland resilience based on long-term research in interior Alaska and the Northwest Territories, Canada. American Geophysical Union Annual Meeting, New Orleans, USA
- Turetsky, M. (2018). International collaborations between NASA and Global Water Futures/Northern Water Futures. All Scientist Meeting for NASA Arctic Boreal Vulnerability Experiment, Seattle, USA
- Turetsky, M. (2018). Understanding and scaling change in lowland permafrost: Cross-scale feedbacks to hydrology and carbon. Arctic Systems Change Workshop. UCAR, Boulder Colorado, USA
- Uses of Ultra-High Resolution Mass Spectrometry in Environmental Chemistry, Paul Jones, 28th University of Toronto Environmental Chemistry Colloquium, June 12-14, 2018.
- Van Cappellen, P. (2018). Anthropogenic lakes: Global environmental impacts of dams and reservoirs. [Plenary Lecture]. 34th International Society of Limnology Congress, August 19-24, 2018, Nanjing, China.
- Van Cappellen, P. (2018). From Integrated Water Management to Adaptive Water Management. [Plenary Lecture]. 3rd Singapore-Nanjing Eco Hi-Tech International Water Environment Management Summit, October 22-23, 2018, Nanjing, China.
- Van Cappellen, P. (2019). Biogeochemical Processes and Cycling: From the Micro to Landscape Scale, [Symposium Keynote]. Observatoire des Sciences de l'Univers de Rennes (OSUR), January 30-31, Rennes, France.
- Van Cappellen, P. (2019). What's in a Name: Ecohydrology – Waterloo Style, invited talk at Laboratoire de Physique Subatomique et des Technologies Associées (SUBATECH), January 28-29, 2019, Nantes, France.
- Van Cappellen, P., Mellage A., Smeaton, C.M., and Rezanezhad, F. (2018). How Geophysics Informs Biogeochemistry: Challenges and (Missed) Opportunities. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Van Meter, K.J. and Basu, N.B. (2018). Landscape Legacies: Long-Term Nitrogen Trajectories in the Chesapeake Bay Watershed and Beyond, Chesapeake Research and Modelling Symposium, June 2018, Annapolis, MD.
- Van Meter, K.J., Basu, N. B., & Zhang, Q. (2018). Chesapeake Legacies: Implications of Groundwater N Accumulation for Water Quality Improvements in the Chesapeake Bay. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Vanessa McFadden (2019): Étude de la tempête de verglas de janvier 2017 ayant causée des pannes de courants majeurs dans la province du Nouveau-brunswick.
- Waddington, J.M. 2018 Ecohydrology, wetland, and forest management research in an era of transformative ecosystem change. Natural Resources Canada - Global Water Futures MOU Workshop, Ottawa ON.

- Waddington, J.M. 2018. Survival of the thickest? Water storage and residence time in peatlands' USGS Powell Center Working Group, Fort Collins, CO (webinar).
- Wallace, C.A. (2018). *Shrubification at the treeline-tundra transition zone*. Invited seminar presentation. Geography and Environmental Sciences Seminar Series. November 22<sup>nd</sup>, 2018
- Wolfe, J.D., Baulch, H., Elliot, J., and Roste, J. (2018) Water Quality on the Prairies. Saskatchewan Association of Watersheds AGM, Swift Current SK. April 11th. Invited.
- Yuwei Xie presented a talk titled "Environmental (DNA) metabarcoding for ecotoxicological assessment of anthropogenic activities". Toxicology 990 Seminar Series, University of Saskatchewan, Sept. 17, 2019.

#### Conference Presentations (non-invited)

- A.M. Chegoonian, C.R. Duguay, Kiana Zolfaghari, and H.M. Baulch, 2018. Preliminary assessment of Landsat-8 and Sentinel-2 data for the estimation of chlorophyll-a concentration in Buffalo Pound Lake, Saskatchewan, Canada. Global Water Futures (GWF) Annual Science Meeting 2018, Hamilton, Canada, 4-6 June.
- A.M. Chegoonian, Kiana Zolfaghari, K. Nugent, H.M. Baulch, P.R. Leavitt, C.R. Duguay. "Remote sensing of lakes to detect and map harmful algal blooms: First steps toward an early warning system for small inland waterbodies", Global Water Futures (GWF) Annual Science Meeting 2019, Saskatoon, Canada, 15-17 May.
- Abdelhamed, M., Razavi, S., Elshamy, M., Wheeler, H., (2018) Assessing baseflow simulation using MESH in Upper Liard Sub-Basin, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Abdrakhimova, P., Bentley, L.R., Hayashi, M. (2018) Hydrogeological factors affecting seasonal fluctuations of groundwater levels in a heterogeneous bedrock aquifer. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Adlard B, Laird BD, Lemire M, Ayotte P, Chan HM, Curren M, Khoury C. (2018). Levels of Contaminants in Human Populations in the Canadian Arctic. International Conference on Circumpolar Health. Copenhagen, Denmark. (Platform)
- Adlard B, Laird BD, Lemire M, Ayotte P, Chan HM, Curren M, Khoury C. (2018). Levels of Contaminants in Human Populations in the Canadian Arctic. International Society of Exposure Science. Ottawa, Canada.
- Al-Dabbag, O. and Krantzberg, G. (2018). The Effects of Nitrogen Dynamics on Toxic, Non-Diazotrophic *Microcystis* spp. in Eutrophic Lakes. International Association for Great Lakes Research Scarborough, ON. June 18-22, 2018.
- Ali Shah, S., Do, N., Razavi, S., Slaughter, A. (2018) A., Application of Network Flow Models for Integrated Water Resources Management in Saskatchewan River Basin, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada

- Ali Shah, S.M., Razavi, S., Slaughter, A., and Wheeler, H., (2018) Investigating the vulnerability of irrigated agriculture across the Saskatchewan River Basin under different future scenarios, 69th International Conference of the International Commission on Irrigation and Drainage (ICID), August 2018, Saskatoon, SK, Canada.
- Almonte J, Stewart RE. On the changing rain-snow transition region over the southern Canadian Cordillera: A perspective into the future. GEWEX Conf., Canmore, Alberta. 2018
- Amiri, E., J.R. Craig, and \*É. Devoie. (2018). Controlling factors on lateral permafrost thaw in the Northwest Territories: a numerical study, Canadian Geophysical Union Joint Meeting, Niagara Falls, ON.
- Amiri, E.A., J.R. Craig, \*Devoie, É., and Quinton, W. 2018. Numerical simulation of lateral permafrost thaw in the Northwest Territories, 5th European Conference on Permafrost, Chamonix Mont-Blanc, France.
- Asadzadeh, M. 2018. Water resources modelling Manitoba (Nelson-Churchill). Integrated Modelling Program for Canada (IMPC). First Annual Meeting July 18-19, 2018. National Hydrology Research Centre, 11 Innovation Boulevard, Saskatoon, SK
- Asare, E., and Belcher, K. (2019) Benefit/cost implications of wetland drainage on the most productive sections of agricultural lands, Vermilion River sub-basin 17, Alberta, Canada. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (Poster)
- Asong ZE, Wheeler HS, Pomeroy JW, Pietroniro A, Elshamy M, (2018). Regional scenarios of change over western Canada: future climate projections. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- Asong, E., Wheeler, H., Razavi, S., Hawkins, E., Pomeroy, J., Pietroniro, A., Elshamy, M., (2018) Cascade of uncertainty in CMIP5 climate projections for scenario-led water resource impact assessments in major river basins of Canada , GWF Annual Science Meeting 2018, 3–6 June 2018, Hamilton, ON, Canada.
- Aubry-Wake C, Pomeroy JW, (2018). Impacts of snowpack accumulation and summer weather extremes on alpine glacier hydrology. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018.
- Aubry-Wake C, Pomeroy JW, (2018). Influences of glacier retreat, summer weather and winter snowpack on the increased variability in runoff composition in a quickly changing glacierized catchment. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 13, 2018
- Aubry-Wake C, Pomeroy JW. Impacts of snowpack accumulation and summer weather extremes on alpine glacier hydrology. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Aubry-Wake C, Pomeroy JW. Influences of glacier retreat, summer weather and winter snowpack on the increased variability in runoff composition in a quickly changing glacierized catchment. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 13, 2018

- Ding, F. Rezanezhad, B. Gharedaghlou, P. Van Cappellen, E. Passeport. Bioretention cells under cold climate conditions. 2018 IAGLR Annual Meeting, June 18-22, 2018, Toronto, Canada.
- Bahrami, A., Goïta, K., Magagi, R., Razavi, S., Elshamy, M., Haghnegahdar, A., Davison, B., (2018) Integration of GRACE data into a hydrology land-surface model in a snow dominated Canadian basin, Canadian Geophysical Union, 10-14 June 2018, Niagara Falls, ON, Canada.
- Bajracharya, A.R., TA. Stadnyk, and M. Asadzadeh. 2018. Hydrological modelling of the Nelson Churchill River Basin using HYPE. First Annual Meeting July 18-19, 2018. National Hydrology Research Centre, 11 Innovation Boulevard, Saskatoon, SK
- Balliston, N. & Price, J.S. 2019. Determining the role of confining layer thickness on peatland subsidence in a mine impacted area. Presented at the Canadian Geophysical Union Student Section Annual Meeting, April 2019 in Toronto, Ontario
- Baltzer J, Marsh P, Swanson H, Turetsky M, Rudolph D, Spence C, Laird B, MacLachy D, Hayashi M, English M, Venkiteswaran J, Hall R, Blay-Palmer A, Derksen C, Schiff S, McKenzie J, Quinton B, Sonnentag O, Skinner K, Craig J, Gray D, Wolfe B. (2018). Northern Water Futures. Global Water Futures Operations Meeting, Saskatoon, SK, January 21-23, 2019. (poster)
- Baltzer, J, Day, N, Johnstone, J, Mack, M, Alexander, H, Arsenault, D, Barnes, J, Bourgeau-Chavez, L, Brown, C, Carrière, S, Greene, D, Gauthier, S, Parisien, M-A, Rogers, B, Thompson, D, Turetsky, M, Veraverbeke, S, Walker, X, Whitman, E, Yang, J (2018) State changes following fire in boreal forests are driven by seedbed conditions and biogeographic context. British Ecological Society Annual Meeting. Birmingham, UK
- Baulch, H., Elliott, J., Wilson, H., Cordeliro, M., Flaten, D., and Lobb, D. (2018) Management options for nutrient control in the northern Great Plains. In Aquatic Environment and Ecosystems: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (Poster)
- Beamesderfer, E.R., Arain, M.A., & Khomik, M. (2018, June 10-14). Exploring the effects of climatic variability versus phenology on the carbon cycle of a naturally regenerated Carolinian Forest. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Beamesderfer, E.R., Arain, M.A., & Khomik, M. (2018, June 10-14). *Exploring the effects of climatic variability versus phenology on the carbon cycle of a naturally regenerated Carolinian Forest*. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Beamesderfer, E.R., Arain, M.A., Khomik, M., & Burns, B. (2018, June 3-6). *Carbon, energy, and water exchange of a mature, temperate deciduous forest in Southern Ontario, Canada*. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- Beamesderfer, E.R., Arain, M.A., Khomik, M., & Burns, B. (2018, June 3-6). *Carbon, energy, and water exchange of a mature, temperate deciduous forest in Southern Ontario, Canada*. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.



- Beigzali, N., Boegman, L., Bocaniov, S., Ackerman, J.D., and Zhao, Y. (2018). Simulation of dynamic hypoxic zone movement in Lake Erie and associated impacts on walleye habitat. Conference of the International Association of the Great Lakes Research (IAGLR), June 18-22, 2018; University of Toronto, Toronto, Ontario, Canada.
- Beiraghdar, P., M. Asadzadeh. 2018. Integrated Water Management Modeling: Research Plan for MH's System Operation. First Annual Meeting July 18-19, 2018. National Hydrology Research Centre, 11 Innovation Boulevard, Saskatoon, SK
- Bergstedt, H., A. Bartsch, and C.R. Duguay, 2018. Influence of lake ice formation and break-up on ASCAT backscatter. *15th International Circumpolar Remote Sensing Symposium*, Potsdam, Germany, 10-14 September.
- Bergstedt, H., A. Bartsch, and C.R. Duguay, 2018. Temporal and spatial dependencies of microwave scattering mechanisms in high latitudes across scales. *European Geosciences Union (EGU) General Assembly 2018*, Vienna, Austria, 8-13 April.
- Bergstedt, H., A. Bartsch, C.R. Duguay, B.M. Jones, and C.D. Arp, 2018. Influence of lake ice formation and break-up on ASCAT backscatter. *AGU 2018 Fall Meeting*, Washington, DC, 10-14 December.
- Bertoncini A L S, Pomeroy J W, Zilefac E A. GPM-IMERG Snowfall Estimates in Cold Mountainous Regions. Global Water Futures (GWF) Inaugural Annual Science Meeting, McMaster University (Hamilton, ON) and Six Nations of the Grand River (Ohsweken, ON), June 2018 (Oral Presentation), 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference, Canmore, Alberta – Canada, May 2018 (Poster Presentation)
- Biagi, K., Clark, M.G, Humphreys, E.H., Carey S.K. 2018. The role of winter processes in the hydrological development of a constructed wetland in the Athabasca Oil Sands Region, Alberta, Canada. Presented at the American Geophysical Union Meeting, Washington, DC, December 2018.
- Biagi, K., Nicholls, E.M., Clark, G., Humphreys, H., Carey, S.K. 2018. The influence of winter processes on the hydrology of a constructed wetland in the Athabasca Oil Sands Region, Alberta: six years after construction. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Bieniada, A., Hug, L., Parsons, C., Van Cappellen, P., and Strack, M. Methanogenic and methanotrophic communities in extracted and restored peatlands. Canadian Geophysical Union Annual Meeting 2018, Niagara Falls, Ontario, June 12, 2018
- Bill, K, Turetsky, MR, Baltzer, JL, \*Day, NJ, \*Dieleman, CM, Walker, XJ, Mack, MC, Johnstone, JF. 2018. Post-fire ecosystem resilience and carbon dynamics in the Northwest Territories, Canada. AGU Fall Meeting, Washington, USA.
- Bocaniov, S., Dagnew, A., Wang, Y.-C., Long, C., and Scavia, D. (2018). Lake St. Clair modeling update. System-wide Phosphorus Balance. SCDRS Advisory Group Meeting, Mar. 15; University of Windsor, Windsor, Ontario.
- Bocaniov, S., Kheyrollah Pour, H., Markelov, I., Scavia, D., and Van Cappellen, P. (2019). Understanding the role of Lake St. Clair in total nutrient load. World Wetland Day 2019 Research Symposium; Feb. 4, 2019; University of Waterloo, Waterloo; Ontario. C6.

- Bocaniov, S., Kheyrollah Pour, H., Scavia, D., and Van Cappellen, P. (2018). Physical and biological gradients and exchange processes in a large shallow lake (Lake St. Clair, USA – Canada). European Large Lakes- International Association for Great Lakes (ELLS-IALGLR), Evian, France, September 23-28, 2018.
- Bocaniov, S., Kheyrollah Pour, H., Scavia, D., and Van Cappellen, P. (2018). Understanding the role of physical processes in algal bloom formation in Lake St Clair. International Association for Great Lakes Research. June 18-22, 2018.
- Bocaniov, S., Markelov, I., Kheyrollah Pour, H., and Van Cappellen, P. (2018). Understanding the role of large-scale physical processes in algal bloom formation in a large shallow lake (Lake St. Clair, U.S.A. – Canada), Global Water Futures, Annual Science Meeting, Macmaster University, Canada, June 3-6, 2018.
- Bodo, A., & Arain, A. (2018, June 3-6). Investigating the Effects of Variable Retention Harvesting Applications on Tree Transpiration in a Red Pine Plantation. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- Bodo, A., & Arain, A. (2018, June 3-6). *Investigating the Effects of Variable Retention Harvesting Applications on Tree Transpiration in a Red Pine Plantation*. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- Bodo, A., & Arain, A. (2018, March 18). Investigating the Effects of Variable Retention Harvesting Applications on Tree Transpiration in a Red Pine Plantation. Poster presentation at the meeting of the CGU Eastern Student Conference, London, ON, Canada.
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- Bondaruk, Ben, Steven Roberts, and Colin Robertson. “Discrete Global Grid Systems: Operational Capability of the Current State of the Art.” In Proceedings of the Conference on Spatial Knowledge and Information - Canada, 7(6):1. Banff, AB, 2019.
- Brandow D, Skinner K, Laird B. (2018). Country Food Contaminant Advisories: Assessing Awareness and Preferences of Health and Risk Communication Messages in the Sahtú Region, NWT. Global Water Futures Inaugural Annual Science Meeting, Hamilton and Ohsweken, June 4-6, 2018. (poster)
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- Brouwer, R., and Liu, H. (2018). Estimating the Economic Costs of Eutrophication in the Great Lakes Basin, GWF Annual Science Meeting, McMaster University, June 3-6, 2018.
- Brown, G., and J.R. Craig. (2018). Extending a general hydrologic modelling framework to TIN-discretized landscapes, Canadian Geophysical Union Joint Meeting, Niagara Falls, ON.

- Bryan, T., and Morrissey, C. (2019) Influence of wetland pesticide pollution waterfowl distribution and abundance in the Prairie Pothole Region. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Budhathoki, S., Morales-Marin, L. and Lindenschmidt, K.-E. (2018) Sediment Yield and Transport Model for Cold Region Catchments. American Geophysical Union (AGU) 2018 Annual Meeting, Washington, D.C., 10 - 14 December 2018. Canadian Geophysical Union, 10-14 June 2018, Niagara Falls, ON, Canada
- Byrnes, D., Van Meter, K. J., & Basu, N. B. (2018, December). Why Is This Still Green? Where and Why Have Changes from People with Power Not Made the Water Great Again. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Byrnes, D., Van Meter, K. J., and Basu, N. B. (2018, December). Back to the Future: Impact of Current Versus Historical Land Use on Water Quality Trends Across the Contiguous US. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Byrnes, D., Van Meter, K.J., and Basu, N.B. (2018). Biogeochemical Asynchrony: Anthropogenic and Landscape Drivers of Nutrient Seasonality Across the Great Lakes Basin and Beyond. Canadian Geophysical Union Joint Meeting, Niagara Falls, Canada, June 2018
- Carey SK. Runoff Processes in Alpine Catchments: Challenges and Opportunities. Presented at the Fifth Annual International Network for Alpine Research Catchment Hydrology. October 2018, Portillo, Chile.
- Carlow, R., Macrae, M.L., Plach, J., Kompanizare, M., Brunke, R., "How low can you go? The use of Geotextile as a Filter for Phosphorus in Overland Flow from Agricultural Croplands in Southern Ontario" CGU Annual Meeting, June 10-14, 2018, Niagara Falls, Ontario, Canada.
- Carlow, R., Macrae, M.L., Plach, J., Kompanizare, M., Brunke, R., "How low can you go? The use of Geotextile as a Filter for Phosphorus in Overland Flow from Agricultural Croplands in Southern Ontario" IAGLR's 61st annual conference on Great Lake Research, June 18-22, 2018, Toronto, Ontario, Canada.
- Carlson, H. 2018. "How Narratives Influence Water Policy in the Saskatchewan River Basin." Global Water Futures inaugural meeting, Hamilton, Canada, 4-6 June 2018.
- Cavaliere, E. (2019) Prairie wetlands: Nutrient sinks or sources in spring-melt? Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Chandrakumar, T., Stone, M., Basu, N. B., and Emelko, M. (2018). Spatial and Temporal Trends in Phosphorus and Suspended Solids Yields along an Urban River Reach. International Association for Great Lakes Research Conference, Toronto, Canada, June 2018
- Chasmer, L., E. Jones, D. Cobbaert, C. Hopkinson, C. Mahoney, J. Montgomery, M. Okhrimenko, R.M. Petrone, 2018. Mapping wetland changes associated with disturbance in the Oil Sands Region using remote sensing. Canadian Symposium on Remote Sensing, Saskatoon, June 19-21.
- Chasmer, L., L. Flade, C. Hopkinson, Petrone, R.M., Devito, K. 2018. Spatial variability of peatland depth of peat burn following wildfire in relation to latent energy fluxes using lidar and

- thermal IR imagery. International Association of Hydrological Sciences Conference – Remote Sensing and Hydrology Symposium, Cordoba Spain. May 8-10.
- Chaudhuri, Chiranjib, and Colin Robertson. “A Novel Method to Analyze Trends of Extreme Precipitation Distribution- A Case Study over the Arctic Regions of Canada.” In Proceedings of the Conference on Spatial Knowledge and Information - Canada, 7(2):1. Banff, AB, 2019.
- Cheecham-Uhrich, D., Duffy, A., Thapa, A., Strickert, G., and Hassanzadeh, E. (2018) Incorporating the Social Component in Hydrological Modeling to Evaluate the Effectiveness of Agricultural BMPs in a Prairie River Basin. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (Poster)
- Chegoonian, A. Duguay, C., Zolfaghari, K., Baulch, H., 2018. Preliminary Assessment of Landsat-8 and Sentinel-2 Data for the Estimation of Chlorophyll-A Concentration in Buffalo Pound Lake, Saskatchewan, Canada. Global Water Futures Annual Science Meeting. MacMaster University, Hamilton, Ontario.
- Chegoonian, A.M., C.R. Duguay, K. Zolfaghari, and H.M. Baulch, 2018. Preliminary assessment of Landsat-8 and Sentinel-2 data for the estimation of chlorophyll-a concentration in Buffalo Pound Lake, Saskatchewan, Canada. Global Water Futures (GWF) Annual Science Meeting 2018, Hamilton, Canada, 4-6 June.
- Cheney CL, MP Pothier, AJ Poulain, JR Thienpont, JB Korosi, LE Kimpe and JM Blais. 2019.
- Cheney CL, MP Pothier, AJ Poulain, JR Thienpont, JB Korosi, LE Kimpe and JM Blais. 2018.
- Cheney CL, MP Pothier, AJ Poulain, JR Thienpont, JB Korosi, LE Kimpe and JM Blais. 2018. Using paleoecotoxicology to assess the toxicity of lake sediments impacted by legacy gold mining in Yellowknife, NT, Canada. Society of Environmental Toxicology and Chemistry, Rome, Italy.
- Cheng, F. Y., & Basu, N. B. (2018). The story of boy fish turning to girl fish (and the other way around): When bad stuff gets stuck in the ground under the moving water and stays there for a long time but comes back later, even when we don't want it. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Cheng, F. Y., Gall, H. E., Mashtare, M. L., Lee, L. S., & Basu, N. B. (2018). Nevertheless they persisted: Can hyporheic zones increase the persistence of estrogenic hormones in agricultural streams? American Geophysical Union, December 10-14, 2018, Washington D.C.
- Cheng, F., and Basu, N.B. (2018). Biogeochemical hotspots: The importance of small water bodies in landscape nutrient processing. Canadian Geophysical Union Joint Meeting, Niagara Falls, Canada, June 2018
- Chow-Fraser, Patricia. “Towards co-creation youth engagement in monitoring stream health in Indigenous communities” (oral presentation), GWF Inaugural Annual Science Meeting McMaster University. 4 June 2018.



- Clark, M.G., Humphreys, E.H., Carey, S.K. 2018. The initial biometeorological development of a constructed watershed. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Coles, AE, Kokelj, SV, Baltzer, JL (2018) Environmental change around northern communities: from boreal forest to arctic tundra. 46<sup>th</sup> Annual Geoscience Forum, Yellowknife, NT
- Conant Jr., B., and Rudolph, D.L. (2019). Low Altitude Aerial Thermal Infrared Surveys to Detect Groundwater Discharges and Melting Permafrost. NovCare 2019: The 6th International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice. Waterloo, Ontario, Canada,
- Copp J, Lai W, Pooni P, Sekerinski E. High Quality Low Cost Sensor Data Through Targeted Maintenance And Sampling Error Understanding. Poster presented at: MacWater Challenges in Water Monitoring, Poster Presentation; 2018 Jul 26; Hamilton, Ontario, Canada
- Copp J, Sekerinski E, Wang X. Anomaly Detection of Water Quality Data with Machine Learning. Poster presented at: Advancing Water Technologies Showcase, Southern Ontario Water Consortium; 2018 Sep 20; Mississauga, Ontario, Canada.
- Copp J, Sekerinski E, Wang X. Anomaly Detection of Water Quality Data with Machine Learning. Poster presented at: MacWater Challenges in Water Monitoring, Poster Presentation; 2018 Jul 26; Hamilton, Ontario, Canada.
- Copp JB, Pooni P, Lai W, Wang X, Viveros R, Sekerinski E. When Grab Samples Just Won't do: High-Quality High-Frequency Water Quality Monitoring. In: 48th Annual WEAO Technical Symposium & OPCEA Exhibition [Internet]. Toronto, Canada: Water Environment Association of Ontario; 2019. p. 4. Available from: <https://www.xcdsystem.com/weao/program/zE6W4pk/index.cfm?pgid=140#C>
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- Costa D, Baulch H, Elliott J, Pomeroy J, Wheeler H, (2018). An inverse modelling approach with equifinality control to investigate the dominant controls of snowmelt nutrient export in agricultural regions. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Costa, D. "The Nutrient App". Lake Winnipeg Basin Symposium, Winnipeg (Oral Presentation). 20-21 March, 2019.
- Costa, D. An inverse modelling approach with equifinality control to investigate the dominant controls of snowmelt nutrient export in agricultural regions (2018), Canadian Geophysical Union (CGU), Niagara Falls (Oral Presentation)

- Costa, D. Pursuing reliable hourly nutrient predictions in cold regions through the coupling of CRHM to an extended version of WINTRA (2018), Global Water Futures Inaugural Annual Science Meeting, Ontario (Oral Presentation).
- Craig, P., H. Ikert, R. Hodgson, I. Cadonic, N. Benoit, A. Doxey, M. Servos. The cost of living in the Grand River: energetics, stress, epigenetics. 13th International Congress on the Biology of Fish, Calgary, Alberta, July 15-19, 2018. abstract
- Das, A. and Lindenschmidt, K.-E, (2018) Evaluation of the relative sensitivity of hydraulic model parameters and boundary conditions and Digital Elevation models on ice-jam flood delineation. 39th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, Canada, 19-21 June, 2018
- Das, A., Rokaya, P. and Lindenschmidt, K.-E. (2018) Exploring the potential of integrating and assessing flood risk analysis in real-time ice-jam flood forecasting. American Geophysical Union (AGU) 2018 Annual Meeting, Washington, D.C., 10 - 14 December 2018.
- Das, A., Rokaya, P. and Lindenschmidt, K.-E. (2018) Impacts of Climate Change on Ice-jam flooding along a northern river, Canada. Cryospheric Extremes Workshop, Helsinki, Finland, 26-28 April 2018.
- Davison, B., Pietroniro, A., Wheeler, H., Pomeroy, J., Princz, D., Soulis, R., Yassin, F., Elshaby, M., Razavi, S., Fortin, V., Lindenschmidt, K.-E., Morales, L., Haghnegahdar, A., Richard, D., Loukili, Y. and Tesemma, Z. (2018) The MESH Model: Past, Present and Future. Global Water Futures inaugural meeting, Hamilton, Canada, 4-6 June 2018.
- Day NJ, \*Dieleman CM, Thorn RG, Turetsky MR, & Baltzer JL. (2018). Mycology of Permafrost Soils. 11<sup>th</sup> International Mycological Congress. 16-21 July, San Juan, Puerto Rico, USA.
- Day NJ, Cumming S, \*Degré-Timmons G, Johnstone J, Gruel R, Mack M, McIntire E, Reid K, Schmiegelow F, Turetsky M, Walker X, White A, & Baltzer J. (2018). Impacts of Wildfire Extent and Severity on Caribou Habitat: from woodland to barren ground. Cold Regions Research Days, Wilfrid Laurier University, Canada
- Day NJ, Cumming S, Dunfield K, Johnstone J, Mack M, Reid K, Turetsky M, Walker X, & Baltzer J. (2018). Some Like it Hot: Heat-resistant fungi in Canada's boreal forests. 34th Great Lakes Mycology Meeting, 28-29 April, Queen's University Biological Field Station, ON, Canada
- Day NJ, Reid KA, Walker XJ, White AL, Cumming S, Dunfield K, Johnstone J, Mack M, Reid K, Turetsky M, & Baltzer J. (2018). Drivers of Land Cover Change After Large Fire Disturbance in Boreal Forests. Global Water Futures Annual Science Meeting. 3-6 June, Hamilton, ON, Canada.
- De Haan, K., Petrone, R.M., Kompanizare, M., Macrae, M.L. "Expected Climate and Vegetation Controls on Water Use Efficiency in a Corn (Maize) field in Southern Ontario".
- de Lannoy, Charles, Zeinab Housseini-Doust, Kurt Gibson, Erik Fréchette, Saif Syed, Nan Zhang. "Sensor Biofouling: Impact and Solutions" (oral presentation), GWF Inaugural Annual Science Meeting McMaster University. 6 June 2018.
- DeBeer C, Wheeler H, Pomeroy J, Stewart R, Carey S, (2018). Climatic, Cryospheric, Ecological, and Hydrological Change in the Interior of Western Canada: The Changing Cold Regions Network and its activities as a GEWEX RHP. 8th Global Energy and Water Exchanges

- (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018.
- DeBeer C, Wheeler H, Pomeroy J, Stewart R, Carey S. Climatic, Cryospheric, Ecological, and Hydrological Change in the Interior of Western Canada: The Changing Cold Regions Network and its activities as a GEWEX RHP. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
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- DeBofsky, A., Xie, Y., Giesy, J. "Shifts of microbiota in fish guts following dietary exposure to benzo[a]pyrene". SETAC North America, Sacramento, California. November 8, 2018. Oral presentation.
- Degré-Timmons, G., Greuel, R., S. Cumming, \*N. Day, S. Hart, E. McIntire, P. McLoughlin, F. Schmiegelow, M. van Telgen, M. Turetsky, A. Truchon-Savard, J. Baltzer & J. Johnstone. (2019) Comparaison des estimés d'abondance de lichen après feu en Saskatchewan et aux Territoires du Nord-Ouest. Poster presentation, Centre for Northern Studies' Annual Symposium 2019, Quebec city, QC.
- Derksen, C., J. King, C. Garnaoud, S. Belair, M. Lapointe, Y. Crevier, R. Girard, G. Burbidge, J. Marquez, D. Bourne, and J. Lemmetyinen. (2018). A new dual-frequency Ku-band radar mission concept for cryosphere applications. POLAR 2018 SCAR/IASC Open Science Conference, Davos, Switzerland, June 2018.
- Devoie, É., R.F. Connon, J.R. Craig, and W.L. Quinton. (2018). Modelling controls on local talik formation in discontinuous permafrost, Canadian Geophysical Union Joint Meeting, Niagara Falls, ON.
- Dixon, H. et al. (2019). GWF 2nd Annual Open Science Meeting. May 15–17, 2019, Saskatoon. (poster)
- Dixon, H. J., Brekke, L. and Swanson, H. K. (2019). Using Broad Scale Monitoring (BSM) methods to assess the fish community of a small sub-Arctic lake. Canadian Conference for Fisheries Research, London, ON.
- Dixon, H. J., Harrison, G., Lister, A. and MacLatchy, D. (2019). Reproductive status of walleye (*Sander vitreus*) and lake whitefish (*Coregonus clupeaformis*) in two large, shallow subarctic lakes. Canadian Conference for Fisheries Research, London, ON, Canada, Jan 3-6, 2019. (presentation)
- Do, N. C. and Razavi S. (2018), Variogram-based global sensitivity analysis of environmental models with dependent variables, AGU 2018 Fall Meeting, 10-14 December 2018, Washington D.C., United State of America.

- Do, N.C., Razavi S. and Ali Shah S. M. (2018), Reliability and Vulnerability Assessment using Global Sensitivity Analysis: Case Study of Saskatchewan River Basin, Global Water Future Annual Science Meeting, 03-06 June 2018, Hamilton, Ontario, Canada.
- Doubleday, McKnight and Newell. 2019. Small community response to forest fires and flooding in the Boreal. Saskatoon May 14-16, 2019.
- Doubleday, Nancy and Jorge Fabra-Zamora. "Envisioning Polycentric Water Governance in a Canadian Context," GWF Inaugural Annual Science Meeting, McMaster University. 3-6 June 2018.
- Drewry, D., Sonnentag, O., Miller, C.E., Schimel, D. et al. (2018), Airborne solar-induced chlorophyll fluorescence to characterize Arctic Boreal zone productivity. Abstract B31F-0484, Washington, D.C., USA.
- Duffy, A., and Strickert, G. (2018) Dialogue That Flows: The role of narrative in supporting watershed governance. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (*Poster*)
- Duffy, A., and Strickert, G. (2019) Once upon a time... A story changed your drinking water. Prairie Water 2nd Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Duguay, C.R., E.A. Zakharova, A.V. Kouraev, H. Kheyrollah Pour, and M. Hoekstra, 2018. Retrieval of ice thickness on large northern lakes from Jason-2 data. *POLAR2018*, Davos, Switzerland, 19-23 June.
- Duignan, Sarah. "Investigating the Role of Water Security on Holistic Health with Six Nations of the Grand River" (oral presentation), McMaster Indigenous Graduate Student Research Symposium, McMaster University. 13 March 2019.
- Duignan, Sarah. "Ohneganos Onegahde:Gyo (Water is Life): Preliminary Findings from Focus Groups on Water Quality and Access at Six Nations of the Grand River" (poster presentation), McMaster Water Week 2018 Research Showcase, McMaster University. 20 Nov 2018.
- Dyck, L., and Whitfield, C.J. (2019) Carbon storage vs. methane emissions: What is happening in prairie wetlands? Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- E. Passeport, B. Ding, B. Gharedaghloo, F. Rezanezhad, L. Rhodes-Dicker, P. Van Cappellen: Bioretention cell performance in cold climate conditions. 9th International Conference *NOVATECH*, 1-5 July 2019, Lyon, France. Extended Abstract.
- E. Passeport, B. Ding, F. Rezanezhad, B. Gharedaghloo, P. Van Cappellen. Bioretention Cells Under Cold Climate Conditions. 2018 AGU Fall Meeting, 10-14 December 2018, Washington DC, USA.
- E. Wilcox and P. Marsh. (2018). Assessing the hydrological variability of lakes between Inuvik and Tuktoyaktuk. ArcticNet Annual Science Conference, Ottawa, Dec. 2018
- Eamen, L., Razavi, S., Brouwer, R., (2018) An Evaluation of Current and Future Water Allocation Strategies in the Saskatchewan River Basin, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada.



- Eamen, L., Razavi, S., Brouwer, R., Tollefson, L., (2018), An Evaluation of Current and Future Water Allocation Strategies in the Saskatchewan River Basin, Canada, International Conference of the International Commission on Irrigation and Drainage, 12–17 August 2018, Saskatoon, Saskatchewan, Canada.
- Eitel, J., Maguire, A., Boelman, N. et al. incl. Sonnentag, O. (2018), Evaluating the potential of fall trends in photochemical reflectance index (PRI) time-series to improve understanding of climate change effects at northern treeline. Abstract B14C-04, 10-14 December 2018, Washington, D.C., USA.
- Elaghoury H, Sekerinski E, Tan R. Implementation of a Long-range Low-cost Water Quality Sensor Network and its Visualization Tool [Internet]. Poster presented at: Advancing Water Technologies Showcase, Southern Ontario Water Consortium; 2018 Sep 20; Mississauga, Ontario, Canada. Available from: <https://gitlab.cas.mcmaster.ca/waterquality/reports/tree/master/ElaghouryTanSekerinski18/poster/MacWater%20July%2026>
- Elaghoury, H., Fadhel, M., Sekerinski, E., and Tan, R. Implementation of a long-range low-cost water quality sensor network and its visualization tool. MacWater Challenges in Water Monitoring, Poster Presentation, Hamilton, Ontario, Canada, July 2018.
- Elmes, MC., & Price, JS. 2018. Hydrologic function of a moderate-rich fen watershed in the Athabasca Oil Sands Region of the Western Boreal Plain, northern Alberta. Canadian Geophysical Union 2018 Meeting, Niagara Falls, ON.
- Elshamy M, Asong ZE, Wheeler HS, Pietroniro A, Pomeroy JW, (2018). Regional scenarios of change over the Mackenzie River Basin: future hydrological projections and challenges with observational uncertainty. American Geophysical Union (AGU) Annual Meeting, Washington DC, United States, December 14, 2018
- Elshamy M, Asong ZE, Wheeler HS, Pietroniro A, Pomeroy JW. 2018. Regional scenarios of change over the Mackenzie River Basin: future hydrological projections and challenges with observational uncertainty. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- Elshamy, M., Asong, Z.E., Wheeler, H.S., Pietroniro, A., Pomeroy, J.W., 2018. Regional scenarios of change over the Mackenzie River Basin: future hydrological projections and challenges with observational uncertainty. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- English, M. (2017). Identification of patterns in hydrological conditions governing flow in an unregulated river basin in the Northwest Territories, and implications for downstream hydroelectric power generation-Abstract submitted for the 5<sup>th</sup> European Conference on Permafrost in Chamonix, France, June 2017
- English, M. (2017). Understanding how climate-driven hydrological conditions may influence patterns of surface discharge in an unregulated watershed in the NWT – Abstract submitted for an oral presentation at the 1<sup>st</sup> International Conference on Water Security in Toronto, June 2017

- F. Rezanezhad, C. M. Smeaton, L. Hug, G. B. Jensen, K. J. Krogstad, M. L. Macrae, C. P.R. McCarter, T. Milojevic, R. Mills, C. T. Parsons, W. Quinton, D. Rudolph, S. Smith, H. Townsend, P. Van Cappellen. Winter Soil Processes in Transition. *Goldschmidt2019*, 18 - 23 August 2019. Barcelona, Spain.
- F. Rezanezhad, L.A. Hug, P. Van Cappellen, D. Rudolph, S. Smith, C. Smeaton, C. T. Parson and C. McCarter\*. Winter Soil Processes in Transition. Global Water Futures Annual Science Meeting 2018, June 3-6, McMaster University, Hamilton.
- F. Rezanezhad, T. Milojevic, D. Oh, C. Smeaton, C. T. Parsons, C. McCarter, and P. Van Cappellen. Soil hydrogeochemical processes under changing winter conditions. 2018 CGU Joint Meeting, 10-14 June 2018, Niagara Falls, Ontario, Canada.
- F. Rezanezhad, T. Milojevic, D. Oh, H. Townsend, C. Smeaton, C. T. Parsons, C. McCarter and P. Van Cappellen. Soil biogeochemical processes controlling subsurface carbon and nutrient fluxes under variable winter conditions. 2018 AGU Fall Meeting, 10-14 December 2018, Washington DC, USA.
- Faber J, \*T Owca, \*M Kay, J Wiklund, B Wolfe and RI Hall. (2018). Baseline hydrological conditions and sediment metal concentrations from paleolimnology. *Cold Regions Research Centre Day*, Wilfrid Laurier University, Waterloo.
- Faber J, \*T Owca, \*M Kay, J Wiklund, B Wolfe and RI Hall. (2018). Understanding the effects of industry on the Peace-Athabasca Delta (Alberta): developing baseline hydrological conditions and sediment metal concentrations using paleolimnology. *ArcticNet Annual Scientific Meeting*, Ottawa.
- Faber J, \*T Owca, \*M Kay, J Wiklund, B Wolfe and RI Hall. (2018). Assessing the impacts of industry on the Peace-Athabasca Delta (Alberta) by establishing baseline sediment metal concentrations and hydrologic conditions. *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Brock University, St. Catharines.
- Faber J, \*T Owca, \*M Kay, J Wiklund, B Wolfe and RI Hall. (2018). Understanding the effects of industry on the Peace-Athabasca Delta (Canada): developing baseline hydrological conditions and sediment metal concentrations using paleolimnology. *International Paleolimnology Symposium*, Stockholm, Sweden.
- Fabra-Zamora, Jorge. "Can Canadian Indigenous Communities Declare the Personality of their Water Bodies?: An International Law Argument" (poster presentation). McMaster Water Week 2018 Research Showcase, McMaster University, November 20, 2018.
- Fabra-Zamora, Jorge. "The Human Right to Water and Its Relevance for Canadian Indigenous Communities" (oral presentation), McMaster Indigenous Graduate Student Research Symposium, McMaster University. 13 March 2019
- Fadhel M, Sekerinski E, Tan R. A Comparison of Time Series Databases for Storing Water Quality Data. Poster presented at: GWF Annual Science Meeting; 2018 Jun 4; Hamilton, Ontario, Canada.
- Fadhel M, Sekerinski E, Tan R. Implementation of a Long-range Low-cost Water Quality Sensor Network and its Visualization Tool [Internet]. Poster presented at: GWF Annual Science Meeting; 2018 Jun 4; Hamilton, Ontario, Canada. Available from:

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- Fadhel, M., Sekerinski, E., and Yao, S. A comparison of time series databases for storing water quality data. In Proceedings of the International Conference on Interactive Mobile Communication, Technologies and Learning, IMCL 2018 (in press), Springer.
- Ferguson, G., Hendry, J., Lindsay, M., Barbour, L., Grasby, S., McIntosh, J. (2018) Groundwater protection – Looking deeper. In Watershed Management and Disturbance: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 5<sup>th</sup>, 2018. (*Oral Presentation*)
- Ferguson, G., Lindsay, M.B.J., Eglington, B. Mowat, A., Tipton, K. and McIntosh, J.C. Lessons Learned from Development of the Williston Basin. Use of the deep subsurface in the UK: What are the implications for groundwater resources The Geological Society, Burlington House, London, UK> July 2018.
- Ferguson, G.A. and McIntosh J.C. Large-scale changes in subsurface water budgets from oil and gas production. AGU Fall Meeting Abstracts, December 2018.
- Ferris, D. and Ferguson, G. (2019) A GIS-based method for accommodating uncertainty in groundwater vulnerability assessment methods. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Ferris, D., and Ferguson, G. (2019) A statistical approach to incorporating uncertainty into regional groundwater vulnerability assessment – Aquifer Vulnerability Index (AVI) case study. Prairie Water 2nd Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Fouché, J., Sonnentag, O., Helbig, M., Wischniewski, K., \*Hould Gosselin, G., Quinton, W.L., Moore, T. (2018), Dissolved organic carbon export and its contribution to the carbon budget in a boreal peat landscape undergoing rapid permafrost thaw. 5<sup>th</sup> European Conference on Permafrost, Chamonix-Mont Blanc, France.
- Frank, A., P. Deadman, R. Brouwer, R. de Loë, D. Robinson “Modeling of agricultural system impacts on phosphorus loads in the Thames River watershed: overview of research approach”. Poster. GWF Annual Science Meeting – June 3-6, 2018
- Fung L, Chaurasia A, \*Ratelle M, Skinner K, Swanson H, Laird BD. (2018). Internal and external exposure analysis of mercury amongst Dene and Metis Communities of the Northwest Territories. Global Water Futures Annual Science Meeting. Hamilton, Canada. (Poster)
- Fuzzen, M., G. Tetreault, K. Hicks, P. Marjan, L. Bragg, H. Dhiyebi, M. McMaster, M. Servos. Major wastewater treatment plant infrastructure upgrades reduce adverse biological responses in wild fish in the Grand River. 13th International Congress on the Biology of Fish, Calgary, Alberta, July 15-19, 2018. abstract
- G. Jensen, K. Krogstad, F. Rezanezhad and L.A. Hug. Characterizing Soil Microbial Diversity through Freeze-Thaw Cycles and the Winter Transition. 2<sup>nd</sup> Global Water Futures (GWF) Annual Open Science Meeting. May 15 -17, 2019, Saskatoon, Saskatchewan, Canada.

- G. Jensen, K. Krogstad, F. Rezenezhad, and L.A. Hug. Characterizing Soil Microbial Diversity through Freeze-Thaw Cycles and the Winter Transition. Canadian Society for Microbiologists Annual Meeting, June 10-14, 2019, Sherbrooke, Quebec, Canada
- Garcia Hernandez, J., Pinto, R. and Brouwer, R. Assessing the economic impacts of water disruptions on the Great Lakes Basin using an input-output optimization model. Accepted for presentation at the annual conference of the European Association of Environmental and Resource Economists, Manchester, June 2019
- Ge, Yichang, & Doubleday, N. 2019. The Use of Narrative Justice to Facilitate Moral Knowledge Acquisition of the Human Right to Clean Drinking Water. iSci Year-end Reporting Meeting. McMaster University, April 9, 2019.
- George Liu, Ron Stewart, Barrie Bonsal, Allan Howard and Elaine Wheaton: Drought Evolution/ Model Evaluation During the 1999- 2004 Canadian Prairie Drought-Drought evolution – Regina 2019
- Gharari, S., Razavi, S., (2018), An improved implementation of the VIC (Variable Infiltration Capacity) model for Canadian basins, European Geosciences Union (EGU) General Assembly, 8–13 April 2018, Vienna, Austria (Poster Presentation).
- Gharari, S., Razavi, S., Wong, J., Pietroniro, A., Wheeler, H., (2018) Regional modelling with a simple land surface model: the strengths, weaknesses and a novel implementation of the Variable Infiltration Capacity (VIC) model, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Gharari, S., Razavi, S., Wong, J., Pietroniro, A., Wheeler, H., (2018) An improved representation of surface heterogeneity in the Variable Infiltration Capacity (VIC) model using Grouped Response Units (GRU),
- Gharari, S., Razavi, S., Wong, J., Pietroniro, A., Wheeler, H., (2018), Estimating near-surface soil moisture under climate change using an improved configuration of the Variable Infiltration Capacity (VIC) model based on Grouped Response Units (GRU), International Conference of the International Commission on Irrigation and Drainage, 12–17 August 2018, Saskatoon, Saskatchewan, Canada.
- Ghoreishi, M., Razavi, S., Elshorbagy, A., (2018) Analyzing News Media Coverage in Extreme Environmental Events: The Key Role of Media in Human Adaptive behaviors, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Ghoreishi, M., Razavi, S., Elshorbagy, A., (2018), Improving Resilience of Water Resources Systems through Public Awareness: The Key Role of Media in Affecting Agricultural Water Use, International Conference of the International Commission on Irrigation and Drainage, 12–17 August 2018, Saskatoon, Saskatchewan, Canada.
- Gibson, C, \*Wallace, C, Brockington, M, Jasiak, I, \*Woodworth, S, Tanche, K, Spring, A, Baltzer, J. 2018. Science Outreach and Youth Engagement in an innovative On-the-Land Camp in the NWT. ArcticNet. Ottawa.
- Gill, A. 2018. A mixed method study to inform risk communications on Harmful Algal Blooms (HABs) in the Prairies. School of Public Health Poster Day. University of Saskatchewan, Saskatoon, SK. September 28, 2018



- Glass, B. and Rudolph, D.L. (2019). Identifying Groundwater Discharge Zones in Northern Canada using Remotely Sensed Optical and Thermal Imagery. NovCare 2019: The 6th International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice. Waterloo, Ontario
- Glass, B. and Rudolph, D.L. (2019). Identifying Groundwater Discharge Zones in Northern Canada using Remotely Sensed Optical and Thermal Imagery. 2nd Annual Open Science Meeting: Global Water Futures. Saskatoon, Saskatchewan, Canada, May 15-17, 2019.
- Glass, B. K., Rudolph, D. L. and Duguay, C., 2018. Use of Remote Geophysical Imagery for the Analysis of Hydrogeological Processes in the Central Mackenzie Valley. Global Water Futures, Annual Science Meeting, MacMaster University, Hamilton, Ont., June.
- Glass, B. K., Rudolph, D. L. and Duguay, C., 2018. Use of Remote Geophysical Imagery for the Analysis of Hydrogeological Processes in the Central Mackenzie Valley. Global Water Futures Annual Science Meeting. MacMaster University, Hamilton, Ontario.
- Grant, K.N., Macrae, M.L., Ali, G.A. Subsurface flow paths and risk of P transport in no-till agricultural soils. Poster Presentation. Canadian Geophysical Union Joint Annual Meeting: June 10-14, 2018. Niagara Falls, Ontario, Canada.
- Grant, K.N., Macrae, M.L., Ali, G.A. Subsurface flow paths and risk of P transport in no-till agricultural soils. Poster Presentation. Global Water Futures Annual Science Meeting: June 3–6, 2018. Hamilton, Ontario, Canada.
- Grant, K.N., Macrae, M.L., Rezanezhad, F., Lam, W.V. Mobilization of Phosphorus in frozen and unfrozen soil under no-till agricultural management with different fertilizer application strategies. Oral Presentation. Canadian Geophysical Union Joint Annual Meeting: June 10-14, 2018. Niagara Falls, Ontario, Canada.
- Green, A.J., Bohrer, G., Petrone, R.M. 2018. The effects of forest sheltering on peatland surface level turbulent processes in the Boreal Plains, Alberta, Canada. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.
- Greuel, R., \*G. Degré-Timmons, S. Cumming,\* N. Day, S. Hart, E. McIntire, P. McLoughlin, F. Schmiegelow, M. van Telgen, M. Turetsky, A. Truchon-Savard, J. Baltzer & J. Johnstone. (2018). Comparing estimates of forage lichen recovery after fire in Saskatchewan and the Northwest Territories. Poster presentation, North American Caribou Workshop, Ottawa, ON.
- H. Townsend, F. Rezanezhad, P. Van Cappellen and M. Macrae. Examining the influence of freeze-thaw cycles on carbon and nutrient dynamics in agroecosystems. 6<sup>th</sup> International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice, NovCare, May 28-31, 2019, Waterloo, Canada.
- H. Townsend, F. Rezanezhad, P. Van Cappellen and M. Macrae. Understanding the influence of ice on the mobility of carbon, nitrogen and phosphorus in agricultural soils. 2<sup>nd</sup> Global Water Futures (GWF) Annual Open Science Meeting. May 15 -17, 2019, Saskatoon, Saskatchewan, Canada.
- Haghnegahdar A., Razavi R, Pietroniro A., Pomeroy A., Wheeler H., Gober P., The Integrated Modelling Program for Prediction and Management of Change in Canada's Major River

- Basins (IMPC), EGU General Assembly, Vienna, Austria, 8-13 April 2018 (Oral presentation)
- Haghnegahdar, A., Razavi, S., (2018) On Multi-criteria Global Sensitivity Analysis of
- Haghnegahdar, A., Razavi, S., (2018), Towards Improved Subsurface Representation in Land Surface-Hydrology Models, American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- Haghnegahdar, A., Razavi, S., Pietroniro, A., Pomeroy, J., Wheeler, H., Gober, P., (2018) The Integrated Modelling Program for Canada (IMPC), , Canadian Water Resources Association, 28-31 May 2018, Victoria, BC, Canada
- Haghnegahdar, A., Razavi, S., Wheeler, H., (2018) Towards improved subsurface representation in Land Surface Models, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Haghnegahdar, A., Razavi, S., Wheeler, H., (2018), Highlighting the importance of subsurface representation in Earth System Models, European Geosciences Union (EGU) General Assembly, 8–13 April 2018, Vienna, Austria (Poster Presentation).
- Hallema, D.W., Sun, G., Caldwell P., Robinne, F.N., Bladon, K.D., Mordecai, R.S., Saia, S.M., McNulty, S.G. 2018. Machine learning in wildfire-linked water supply risk assessment: Data science toolkit. Presented at the American Geosciences Union Meeting, December 2018, Washington, DC, USA.
- Han, M., Mai, J., Craig, J. R., Tolson, B. A., Gaborit, E., Lee, K., and Liu, H. (2019). Including Missing Lakes in Our Model: A Flexible Catchment-based Lake and River Routing Product for Hydrologic and Land Surface Models in Canada. World Waters Day at University of Waterloo, Waterloo, ON, March 22, 2019.
- Han, M., Mai, J., Craig, J. R., Tolson, B. A., Gaborit, E., Lee, K., and Liu, H. (2018). Developing a Pan-Canadian Hydrologic Routing Network of Lakes and Rivers, 2018 Joint Meeting of CGU, CSSS, CIG, ES-SSA and CSAFM, June 10-14, Niagara Falls, ON.
- Han, M., Mai, J., Tolson, B. A., Craig, J. R., and Basu, N.B. (2019). Developing a flexible vegetation growth library for hydrology models. GWF Annual Science Meeting, Saskatoon, SK.
- Hanke, K., Macrae, M.L., Michaud, A. and Basu, N. Use of the SWAT model to determine the impacts of climate change on runoff and nutrient mobility in the Medway Creek watershed and examine the impacts of controlled drainage on runoff and nutrient losses at the field scale. Second Quebec-Ontario Controlled Drainage Workshop, June. 15, 2018
- Harder PS, Pomeroy JW, Helgason WD, (2018). Modelling local scale sensible and latent heat advection contributions to snowmelt. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Harper N, Marjan P, Lynch M, Doxey AC, Servos MR, Giesy JP, Craig PM and Katzenback BA. Validating environmental DNA metabarcoding methods via conventional taxonomic identification in Ontario's Grand River watershed. Poster Presentation, *Canadian*

*Ecotoxicity Workshop*. Vancouver, British Columbia, Canada. Sept 30 – Oct 3, 2018.

\*Awarded the Arthur J. Niimi Outstanding Student Poster Presentation Award.

Harper, N, Ikert H, Lynch M, Doxey AC, Servos MR, Giesy JP, Craig PM, and BA Katzenback. Validating eDNA metabarcoding surveys via electrofishing in an inhibitor-laden stream. 28<sup>th</sup> Comparative Physiology and Biochemistry Workshop. Keene, Ontario. January 27, 2019.

Harper, N, Ikert H, Lynch M, Doxey AC, Servos MR, Giesy JP, Craig PM, and BA Katzenback. Validating eDNA metabarcoding surveys via electrofishing in an inhibitor-laden stream. Oral Presentation. 28th Comparative Physiology and Biochemistry Workshop. Keene, Ontario. January 27, 2019.

Henderson RI, Salk KR, Schiff SL, and Venkiteswaran JJ. Diel trends in stable isotope values of dissolved inorganic carbon in a eutrophic boreal lake. CCFFR/SCL 2019 London ON. January 6-10, 2019.

Hergott, A., Cavaliere, E., Whitfield, C.J., and Baulch, H. (2019) The rate and controls of nitrogen biogeochemistry in the Prairie Potholes, Canada. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)

Hergott, A., Cavaliere, E., Whitfield, C.J., and Baulch, H. (2019) The rate and controls of nitrogen biogeochemistry in the Prairie Potholes, Canada. World Water Day Event, University of Saskatchewan, Saskatoon, SK March 22<sup>th</sup>, 2019 (*Poster*)

Hergott, A., Cavaliere, E., Whitfield, C.J., and Baulch, H. (2019) The rates and controls of nitrogen biogeochemistry in the Prairie Potholes, Canada. SENS Symposium, University of Saskatchewan, Saskatoon, SK March 28<sup>th</sup>, 2019 (*Presentation*)

Hickman, J., M. English, P. Marsh. (2018) Identification of patterns in hydrological conditions governing flow in an unregulated river basin in the Northwest Territories, and implications for downstream hydroelectric production. European Conference on Permafrost Chamonix, France, July.

Hickman, J., M.English, \*N. Wilson, S.Kokelj, R. Judas. (2018). Using aerially weighted terrain units to improve accuracy in SWE estimates in the Snare River watershed, Northwest Territories, Canada. ArcticNet Annual Meeting. Ottawa. December

Ho, E., Courtenay, S., and Trant, A. 2018. Comparative review of freshwater monitoring approaches towards consideration of cumulative effects [poster]. McMaster University World Water Week conference, November 20, 2018, Hamilton, Ontario.

Hodgson R., Servos, M.R., Craig P.M. (2019). Wastewater Effluent Effects on Metabolism of Darter Species in the Grand River. Canadian Society of Zoologists. Canadian Society of Zoologists. Windsor, Ont., May 13-17, 2019

Hodgson, R, Servos, M.R, and Craig P.M. (2019). The Effects of Wastewater Effluent on Gill Physiology of Darter Species in the Grand River. 28th Comparative Physiology & Biochemistry Workshop. Poster presentation. Keene, Ontario, Jan. 25-27, 2019.

Hoekstra, M., Foroutan, M., Kang, K., Duguay, C., 2019. Preliminary Testing of the senseFly thermoMAP Infrared Camera for Surface Water Temperature Measurements of a Small

- Lake - Wilmot, Ontario, Canada. GRSS Systems and Technologies for Remote Sensing Applications Through Unmanned Aerial Systems Conference. Rochester, NY.
- Hoggarth, C. and Baulch, H. (2019) Which prairie wetlands do we need? Ecosystem services, biogeochemistry, and conservation priorities. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Hrach D, Petrone R. Quantifying seasonal evapotranspiration of a sub-alpine wetland, Kananaskis, Alberta. McMaster Water Week 2018, poster presentation. Award winner of the GWF Young Professionals Best Student Post Award. November 21, 2018
- Hrach D, Petrone R. Quantifying seasonality and role of shading dynamics on a subalpine wetland, Kananaskis, Alberta. CGU Eastern Student Section Meeting 2018, poster presentation.
- Huang, X., \*Glass, B. and Rudolph, D.L. 2019. Impacts of variable soil freezing conditions in the shallow subsurface on stress fields over urban water mains. NovCare 2019: The 6th International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice. Waterloo, Ontario
- Huang, X., and Rudolph, D.L. (2019). Modeling of water, vapor, heat and stress fields in variably saturated freezing the soil. 2019 GWF Annual Science Meeting. Saskatoon, Canada, May 15-17, 2019.
- Hughes, A., Cey, E.E., and Hayashi, M. (2018) The role of irrigation in depression-focused groundwater recharge in the Canadian Prairies. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Hydrological Models, Canadian Water Resources Association, 28-31 May 2018, Victoria, BC, Canada.
- Ikert H, Lynch M, Doxey AC, Servos MR, Giesy JP, Katzenabck BA, Craig PM. Identification of secreted microRNA from acutely stressed *Oncorhynchus mykiss*. Canadian Society of Zoologists. Windsor, Ont., May 13-17, 2019
- Ikert H, Lynch M, Doxey AC, Sevos MR, Giesy JP, Katzenabck BA, Craig PM. (2019) Identification of Secreted microRNA from Acutely Stressed *Oncorhynchus mykiss*). Canadian Society of Zoologists. Oral presentation.
- Ikert HA, Lynch M, Marjan P, Doxey AC, Servos MR, Giesy JP, Katzenback BA and Craig PM. Alteration of secreted miRNA from stressed rainbow trout identified via high throughput sequencing. *Canadian Ecotoxicity Workshop*. Vancouver, British Columbia, Canada. Sept 30 – Oct 3, 2018.
- Ikert HA, Lynch M, Marjan P, Doxey AC, Servos MR, Giesy JP, Katzenback BA and Craig PM. Functional implications of altered miRNA following a multiple stressor exposure in zebrafish (*Danio rerio*). *Society of Environmental Toxicology and Chemistry North America*, Sacramento, California, USA from November 4 – 8, 2018.
- Ikert HA, Marjan P, Doxey AC, Servos MR, Giesy JP, Katzenback BA and Craig PM. Can microRNA secreted from trout be used to detect their response to stress? Oral Presentation, *Canadian Society of Zoologists*. St. Johns, Newfoundland. May 7 – 11, 2018.



- Ikert HA, Marjan P, Doxey AC, Servos MR, Giesy JP, Katzenback BA and Craig PM. Can microRNA secreted from trout be used to detect their response to stress? *Global Water Futures Annual Science Meeting*. Hamilton, Ontario. June 3 – 6, 2018.
- Ikert HA, Marjan P, Doxey AC, Servos MR, Giesy JP, Katzenback BA and Craig PM. Can microRNA secreted from trout be used to detect their response to stress? *Laurentian Chapter of the Society of Environmental Toxicology and Chemistry*. Kingston, Ontario. June 8, 2018. Awarded best PhD presentation
- Ikert, Heather, P. Marjan, A.C. Doxey, M.R. Servos, J.P. Giesy, B.A. Katzenback, and P.M. Craig (2019). Can microRNA secreted from trout be used to detect their response to stress? 28<sup>th</sup> Comparative Physiology & Biochemistry Workshop. Poster presentation. Keene, Ontario, Jan. 25-27, 2019.
- Irvine, S., Rastelli, J., Biagi, K., Carey, S.K. 2018. Temporal and spatial variability in the DOC dynamics of a constructed wetland in the Athabasca Oil Sands Region. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Ives, J., Rooney, R., Ivanova, S.V., Ciborowski, J., Barker, N., and Gannon, J. (2018). Assessing drivers of human-induced change in Lake Erie using fuzzy cognitive mapping. International Association for Great Lakes Research Conference, Toronto, Canada, June 2018.
- Ives, J.T., Ciborowski, J.J.H., Rooney, R., Ivanova, S.V., Barker, N., Gannon, J., Bass, B., and Findlay, C.S. (2018). Assessing drivers of human-induced change in Lake Erie using fuzzy cognitive mapping. Poster presentation at the International Association for Great Lakes Research in Scarborough, ON, on June 18th-22nd 2018
- J Hickman and R Connon. 2018. Arsenic mobility in terrestrial and aquatic ecosystems of the Lake 10 catchment, NWT. Canadian Association of Geographers – Ontario Division Annual Meeting, University of Toronto, Toronto.
- J Hickman and R Connon. 2018. Characterizing arsenic deposition and mobility in terrestrial and aquatic ecosystems of the 'Lake 10' catchment, NWT. Geoscience Forum, Yellowknife.
- Jasiak I, \*M Kay, BB Wolfe and RI Hall. (2018). Clear as mud: Reconstructing the hydrology and contaminant deposition at a lake in the Peace-Athabasca Delta, Canada. *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Brock University, St. Catharines [received best poster award].
- Jasiak I, J Telford, JA Wiklund, RI Hall and BB Wolfe. 2019. Defining a legacy pollution footprint: assessing spatiotemporal patterns of arsenic and other metals in sub-arctic lakes using paleolimnology. Canadian Geophysical Union – Hydrology Section Ontario Student Conference, Ryerson University, Toronto.
- Jasiak I, M Schultz, J Telford, R Connon, J Hickman, BB Wolfe and JJ Venkiteswaran. SAMMS: Sub-Arctic Metal Mobility Study. Global Water Futures Annual Science Meeting, Hamilton.
- Jasiak I, M Schultz, J Telford, RI Hall, BB Wolfe, L Mindorff and J McGeer. 2018. Assessing spatiotemporal patterns of arsenic and other metals in sub-arctic lakes. Cold Regions Research Centre Day, Wilfrid Laurier University, Waterloo.
- Jasiak I, M Schultz, J Telford, RI Hall, BB Wolfe, L Mindorff and J McGeer. 2018. Tracking legacy pollution: assessing spatiotemporal patterns of arsenic and other metals in subarctic lakes

- using paleolimnology. Canadian Association of Geographers – Ontario Division Annual Meeting, University of Toronto, Toronto received best poster award].
- Jasiak I, M Schultz, J Telford, RI Hall, BB Wolfe, L Mindorff and J McGeer. 2018. Tracking legacy pollution: assessing spatiotemporal patterns of arsenic and other metals in subarctic lakes using paleolimnology. Geoscience Forum, Yellowknife.
- Jasiak I. 2018. SAMMS: The Sub-Arctic Metal Mobility Study. Presentation to Government of the Northwest Territories – Environment and Natural Resources, Yellowknife (17 August 2018).
- Jason Flemke, Yanping Li, Changhai Liu, (2018), Central U.S. WRF statistical verification of simulated composite radar. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Jason Flemke, Yanping Li, Changhai Liu, 2018: Central U.S. WRF statistical verification of simulated composite radar. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Jawed, Z. (August 2018). Use of Decision Support Tools to Address Emerging Issues in the Great Lakes, Global Water Future Annual Symposium, McMaster University. C27. Kheyrollah Pour, H., and Van Cappellen, P. (2019). Climate Change Signal in the Great Lake Water Quality. World Wetland Day, University of Waterloo, Feb 4, 2019.
- Jawed, Z. and Krantzberg, G. (August 2018). The role of practitioners in Decision Support System formulation, Global Water Future Annual Symposium, McMaster University.
- Jawed, Z. and Krantzberg, G. (June 2018). Use of Decision Support tools to Address emerging issues in the Great Lakes, GWF Annual Science Meeting, McMaster University.
- JD Neufeld. 2018. Complex phototrophic ecology in a seasonally anoxic boreal shield lake. 17<sup>th</sup> International Symposium on Microbial Ecology (ISME17) August 12<sup>th</sup>-17<sup>th</sup>, 2018; Leipzig, Germany
- K. Grant, M.L. Macrae, F. Rezanezhad, W.V. Lam. Phosphorus movement in frozen and unfrozen soil under no-till agricultural management with different fertilizer strategies. 9<sup>th</sup> World Water Day, University of Waterloo, March 22, 2018. **(Winner of Best Research Poster Award)**.
- K. Grant, M.L. Macrae, F. Rezanezhad, W.V. Lam. Phosphorus transport in frozen and unfrozen soil under no-till agricultural management with different fertilizer application strategies. 2018 CGU Joint Meeting, 10-14 June 2018, Niagara Falls, Ontario, Canada. **(Winner of Don Gray Scholarship in Canadian Hydrology)**
- K. Krogstad, G. Jensen, L.A. Hug and F. Rezanezhad. How are Fall Fertilizer Amendments Affected by Winter Soil Conditions? 2<sup>nd</sup> Global Water Futures (GWF) Annual Open Science Meeting. May 15 -17, 2019, Saskatoon, Saskatchewan, Canada.
- K. Krogstad, G. Jensen, L.A. Hug and F. Rezanezhad. Investigating the Effects of Freeze-Thaw Conditions on Nutrient Cycling and Fall Fertilizer Efficacy. 6<sup>th</sup> International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice, NovCare, May 28-31, 2019, Waterloo, Canada.

- K. Pi, J. Liu, F. Rezanezhad, P. Van Cappellen. Mercury sensing by DNA: Field-deployable routine detection of trace-level aqueous  $\text{Hg}^{2+}$ . 2<sup>nd</sup> Global Water Futures (GWF) Annual Open Science Meeting. May 15 -17, 2019, Saskatoon, Saskatchewan, Canada.
- K.K. Kang, M. Hoekstra, M. Foroutan, A.M. Chegoonian, Kiana Zolfaghari, C.R. Duguay, "Operating Procedures and Calibration of a Hyperspectral Sensor onboard a Remotely Piloted Aircraft System for Water and Agriculture Monitoring", The International Geoscience and Remote Sensing Symposium (IGARSS), Yokohama, Japan (July-Aug 2019).
- Karran DJ, Loisel J, Von Ness K, Westbrook CJ, Kohlmeyer C, Bedard-Haughn A. Enduring effects of topographic constraints on peat development in a beaver-inhabited montane fen. Joint meeting of the CGU-CSSS-GIC-ESSSA-CSAFM, Niagara Falls, Ontario, 10-14 June 2018.
- Kay ML, \*C Remmer, J Vucic, \*L Neary, E MacDonald, K Wesenberg, K Thomson, K Brown, JA Wiklund, B Wolfe and RI Hall. (2018). Use of a binary mixture model to reconstruct 300 years of Athabasca River sediment metal concentration from floodplain lake cores. *International Paleolimnology Symposium*, Stockholm, Sweden.
- Kay ML, \*C Remmer, J Vucic, \*L Neary, MacDonald, K Wesenberg, K Thomson, K Brown, JA Wiklund, B Wolfe and RI Hall. (2019). Use of mixture models to reconstruct long-term records of Athabasca River sediment metal concentrations from floodplain lake cores. *Canadian Geophysical Union – Hydrology Section Ontario Student Conference*, Ryerson University, Toronto.
- Kay ML, \*C Remmer, J Vucic, \*L Neary, MacDonald, K Wesenberg, K Thomson, K Brown, JA Wiklund, B Wolfe and RI Hall. (2018). Use of mixture models to reconstruct 300 years of Athabasca River sediment metals concentrations from floodplain lake cores. *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Brock University, St. Catharines.
- Kay ML, \*C Remmer, J Vucic,\* L Neary, E MacDonald, K Wesenberg, K Thomson, K Brown, JA Wiklund, B Wolfe and RI Hall. (2018). Discerning the effects of major energy projects, climate and change in distributary flowpaths on hydrology of lakes in the Athabasca Delta, Canada. *International Paleolimnology Symposium*, Stockholm, Sweden.
- Kershaw, G., W. Quinton. (2018). Precipitation inputs in a Nival basin, Mackenzie Mountains, NWT. Annual meeting of the Cold Regions Research Centre: Cold Regions Research Centre Days, 29-30 Nov., 2018, Wilfrid Laurier University, Waterloo, Canada.
- Kershaw, GL, WL Quinton, M English. (2018). Using stable isotopes to assess seasonal variations in runoff response from an alpine valley basin in the Mackenzie Mountains, NWT, Association of Canadian Universities for Northern Studies (ACUNS), Student Conference, November 1-3, 2018, Edmonton, Canada.
- Keshavarz, K., Razavi, S. and Slaughter, A. (2018), An Evaluation of the Apportionment Agreements of the Transboundary Rivers of the Saskatchewan River Basin under Future Climate Change Scenarios, 69th International Conference of the International Commission on Irrigation and Drainage (ICID), August 2018, Saskatoon, SK, Canada.

- Keshavarz, K., Razavi, S., Slaughter, A., (2018) Integrated Water Resources Management of the Saskatchewan River Basin using WEAP, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada.
- Khan H, \*ML Kay, I Jasiak, RI Hall and BB Wolfe. (2019). Investigating past changes in water balance of two small central closed-drainage lakes in the Peace-Athabasca Delta using paleolimnological methods. *Canadian Geophysical Union – Hydrology Section Ontario Student Conference*, Ryerson University, Toronto.
- Kheyrollah Pour, H., Bocaniov, S., Markelov, I., and Van Cappellen, P. (2018). Effects of Winter Conditions on Chlorophyll-a in Lakes: Detection and Attribution of Climate Change Signal. European Large Lakes- International Association for Great Lakes (ELLS-IAGLR), Evian, France, September 23-28, 2018.
- Kheyrollah Pour, H., Bocaniov, S., Markelov, I., and Van Cappellen, P. (2018). Seasonal Patterns of Chlorophyll and Temperature in Lakes: Detection and Attribution of Climate Change Signal. Global Water Futures, Annual Science Meeting, Macmaster University, Canada, June 3-6.
- Kiana Zolfaghari, M. Hoekstra, C.R. Duguay, D. Rudolph, I. D’Souza, “Concept Design of a Canadian Water Microsatellite Mission”, 6th International Conference Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice (NovCare), Waterloo, Ontario, Canada (May 2019).
- Kiana Zolfaghari, M. Hoekstra, C.R. Duguay, D. Rudolph, I. D’Souza, “Canadian Water Microsatellite Mission – Concept Design”, Global Water Futures (GWF) Annual Science Meeting 2019, Saskatoon, Canada, 15-17 May.
- Kiana Zolfaghari, M. Hoekstra, C.R. Duguay, D. Rudolph, I. D’Souza, “Canadian Water Microsatellite Mission – Concept Design”, Submitted to The International Geoscience and Remote Sensing Symposium (IGARSS), Yokohama, Japan (July-Aug 2019).
- Kiana Zolfaghari, S. Bird, G. Wilkes, D. Ellis, K.D.M. Pintar, N. Gottschall, E. Topp, C.R. Duguay, H. McNairn, and D.R. Lapen, “A Comparison of Lab- and Field-based Water Quality Measurements for Agricultural Surface Waters”, Global Water Futures (GWF) Annual Science Meeting 2018, Hamilton, Canada, 4-6 June.
- Kiana Zolfaghari, S. Bird, G. Wilkes, D. Ellis, K.D.M. Pintar, N. Gottschall, E. Topp, C.R. Duguay, H. McNairn, and D.R. Lapen, “A Comparison of Lab- and Field-based Water Quality Measurements for Agricultural Surface Waters”, International Association for Great Lakes Research (IAGLR), Toronto, Ontario, Canada (June 2018).
- Kiana Zolfaghari, S. Bird, G. Wilkes, D. Ellis, K.D.M. Pintar, N. Gottschall, E. Topp, C.R. Duguay, H. McNairn, and D.R. Lapen, “Using WorldView Imagery to Study Chlorophyll-a Concentration in South Nation River, Eastern Ontario, Canada”, OCEAN OPTICS XXIV, Dubrovnik, Croatia (Oct. 2018).
- Kidd, K., M. Servos, M. Hecker, F. Gagné. Assessment of environmental risks related to emerging contaminants in municipal wastewaters – a toolbox approach. Water Research Foundation, Denver, Co., Sept. 20, 2018. Abstract



- Kinar NJ, Pomeroy JW, (2018). Internet of Things (IoT) Systems and Measurement of Snowpacks. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Klemt W, RI Hall and BB Wolfe. (2018). Defining the natural range of variation and extent of metal pollution of the Athabasca River in the Alberta oil sands region: an approach using floodplain lake sediments. *International Paleolimnology Symposium*, Stockholm, Sweden
- Klemt W, RI Hall and BB Wolfe. (2018). Use of floodplain lake sediments to determine the natural range of variation and extent of vanadium pollution of the Athabasca River in the Alberta oil sands region. *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Brock University, St. Catharines.
- Klemt W, RI Hall and BB Wolfe. (2019). Flood-influenced lakes as archives of natural and anthropogenic trace metal deposition in the oil sands region: an approach to define pre-industrial baseline conditions. *Canadian Conference for Fisheries Research / Society of Canadian Limnologists*, London.
- Klemt, W., Wolfe, B., Hall, R. (2019). Flood-influenced lakes as archives of natural and anthropogenic trace metal deposition in the oil sands: an approach to define pre-industrial baseline conditions. Canadian Conference for Fisheries Research (CCFFR)/ Society of Canadian Limnologists (SCL). London, Ontario.
- Klemt, W.; Wolfe, B.; Hall, R. 2018. Defining the natural range of variation and extent of metal pollution of the Athabasca River in the Alberta oil sands region: an approach using floodplain lake sediments. *International Paleolimnology Association/ International Association of Limnogeology*. Stockholm, Sweden.
- Knox, S.H., Jackson, R.B., Poulter, B. et al. incl. Sonnentag, O. (2018), FLUXNET-CH<sub>4</sub> Synthesis Activity: objectives, observations, and future directions. Abstract B43D-08, December 2018, Washington, D.C., USA.
- Kompanizare\*, M., Macrae, M.L., Plach, J., Carlow, R., Brunke, R., “Improving estimates of phosphorous loads from tile-drained landscapes using Kriging techniques” *Global Water Future Annual Meeting*, June 3-6, 2018, Hamilton, Ontario, Canada.
- Kompanizare, M., Macrae, M., Petrone, R., “How will climate change affect P loss and water use efficiency?” *Global Water Future, Local Water Solutions in a Changing Climate Workshop*, Waterloo, ON, December, 2018.
- Kompanizare, M., Macrae, M.L., Carlow, R., Brunke, R., “Hysteresis in tile flow rating curves: a case study from an Ontario farm” *CGU Annual Meeting*, June 10-14, 2018, Niagara Falls, Ontario, Canada.
- Kompanizare, M., Petrone, R., Macrae, M.L., Green, A., Khomik, M., “Assessment of water use efficiency in selected vegetation coverage at a farm scale – model testing” *CGU Annual Meeting*, June 10-14, 2018, Niagara Falls, Ontario, Canada.
- Krafczek, M. and A. Berg. 2018. Contributions of geophysical data and SAR data collected at C-band and L-band for estimation of field scale soil moisture. Joint meeting of the Canadian

- Geophysical Union, Canadian Soil Science Society and the Canadian Society for Agricultural and Forest Meteorology. Niagara, Ontario.
- L. Fairbairn, F. Rezanezhad, C.T. Parsons, M.L. Macrae and P. Van Cappellen. Soil carbon dioxide fluxes: Decoupling the effects of soil moisture and oxygen. 2<sup>nd</sup> Global Water Futures (GWF) Annual Open Science Meeting. May 15 -17, 2019, Saskatoon, Saskatchewan, Canada.
- L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018 IFHAB workshop on harmful cyanobacteria blooms, Toronto, plenary speaker, “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Laamrani A., A. Berg, P.R Voroney, M. March, A.S. McLaren, R.C. Martin. 2018. Agricultural Soil Organic Carbon Levels Estimation Using Ground-Based and UAV-Imagery Thermal Data. American Society of Agronomy, the Crop Science Society of America, and the Canadian Society of Agronomy meeting. Baltimore, MD
- Laamrani, A., A. Berg, M. March, A. McLaren, R. Martin. 2018. Use of UAV acquired imagery as a precision agriculture method for measuring crop residue in southwestern Ontario, Canada. 14th Annual Precision Agriculture Conference. Montreal, Quebec.
- Lalonde, E. 2019. A Vignette-Based Field Experiment to Assess Mining Site Managers’ Perception of Threat. Isci 3A12 final program reporting.
- Lam, W.V., Macrae, M.L., English, M.C., O’Halloran, I., and Ali, G.A. Using hysteresis loops to examine phosphorus mobilization in southern Ontario tile drains. Oral Presentation. 2018 Joint Meeting of the Canadian Geophysical Union, Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America, and Canadian Society for Agricultural and Forest Meteorology. Niagara Falls, Ontario, June 10-14, 2018.
- Lamb, K.G., Bryne-Mamahit, S., and Stastna, M. (2018). Idealized numerical simulations of Ontario's Grand River plume. EGU General Assembly 2018. Vienna, Austria. April 8-13, 2018.
- Langs L, Petrone R. Investigating alpine forest water use during variable growing season and climate conditions in the Canadian Rocky Mountains, Kananskis, Alberta. Canadian Geophysical Union Annual Meeting Niagara Falls 2018, oral presentation.
- Langs L, Petrone R. Methods investigating alpine forest water use under varying environmental conditions in the Canadian Rocky Mountains. Canadian Geophysical Union Annual Meeting Vancouver 2017, poster presentation.
- Langs, L, Petrone R. A  $\delta^{18}\text{O}$  and  $\delta^2\text{H}$  stable water isotope analysis of subalpine forest water sources under seasonal and hydrological stress in the Canadian Rocky Mountains, Kananaskis, Alberta. Canadian Geophysical Union Annual Meeting Niagara Falls 2018, poster presentation.
- Larsen M. 2018. Longer summers drive multiple cyanobacterial blooms on Lake 227 – Global Water Futures Annual Meeting, June 06-08.

- Larsen M. 2018. Cyanobacterial bloom composition and duration in Conestogo Reservoir: An investigation in the drivers of bloom formation – Global Water Futures Annual Meeting, June 06-08.
- Larsen M. 2018. When one becomes two! Longer summers lead to multiple cyanobacterial blooms – American Society of Limnology and Oceanography, June 10-15.
- Larsen ML, Venkiteswaran JJ, Baulch HM, Schiff SL, Higgins SN. Constant nutrient loads yield a lake with changing cyanobacteria blooms. CCFFR/SCL Conference, London, Ontario, January 6-10, 2019.
- Leathers J, J Venkiteswaran, M English, S Schiff, J Hickman and M Schultz. 2018. Determining effects of climate change on arsenic mobility in peatlands: an experimental approach. Canadian Association of Geographers – Ontario Division Annual Meeting, University of Toronto, Toronto.
- Leathers JG, JJ Venkiteswaran, MC English, SL Schiff, J Hickman and M Schultz. 2018. Determining effects of climate change on arsenic mobility in peatlands: an experimental approach. Geoscience Forum, Yellowknife.
- Leclerc E, J Telford, I Jasiak, M Schultz, M English, J Venkiteswaran, B Wolfe and R-Marie Couture. 2018. Mobility and temporal trends of arsenic in lake sediments influenced by Giant Mine emissions, Northwest Territories. Sentinel North Annual Meeting, Université Laval, Quebec City.
- Lei and Rooney. Searching for plant biodiversity in Alberta's Rocky Mountain peatlands. Biology Graduate Student's Symposium, University of Waterloo. 25 April 2019
- Leroux N, Pomeroy J, (2018). Simulation of capillary overshoot in snow with a non-equilibrium Richards equation model combined with a trapping model for the water phase. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018.
- Leroux N, Pomeroy J, Helgason W, (2018). Impact of heat advection induced by topography-driven air ventilation on snow surface temperature. 75th Annual Eastern Snow Conference (ESC): SNOW PAST PRESENT and FUTURE, College Park, Maryland, USA, June 5, 2018
- Leroux N, Pomeroy J, Helgason W. Impact of heat advection induced by topography-driven air ventilation on snow surface temperature. 75th Annual Eastern Snow Conference (ESC): SNOW PAST PRESENT and FUTURE, College Park, Maryland, USA, June 5, 2018
- Leroux N, Pomeroy J. Simulation of capillary overshoot in snow with a non-equilibrium Richards equation model combined with a trapping model for the water phase. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018
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- Li, Z. and Lindenschmidt, K.-E. (2018) Compact and fully polarimetric Synthetic Aperture Radar (SAR) for retrieving surface soil moisture content in vegetated agricultural fields. 39th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, Canada, 19-21 June, 2018
- Li, Z. and Lindenschmidt, K.-E. (2018) Monitoring river ice cover development using the Freeman-Durden decomposition of quad-pol Radarsat-2 images. Global Water Futures inaugural meeting, Hamilton, Canada, 4-6 June 2018.
- Li, Z., Budhathoki, S., Morales, L., Williams, B. and Lindenschmidt, K.-E. (2018) Dynamic Soil Moisture and Contributing Drainage Area Monitoring and Modelling using Multi-temporal SAR image. American Geophysical Union (AGU) 2018 Annual Meeting, Washington, D.C., 10 - 14 December 2018.
- Li, Z., Zhang, F. and Lindenschmidt, K.-E. (2018) Integrating Radarsat-2, air photos, and environmental data for estimating river ice volume as an essential input for near-real time ice-jam flood forecasting. 39th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, Canada, 19-21 June, 2018
- Liu J. et al. (2018) Are we unintentionally managing the nitrogen to phosphorus ratio of runoff? (2018) Joint Meeting of the CGU—CSSS—CIG—ES-SSA—CSAFM. Jun. 10-14, 2018. Niagara Falls, Ontario, Canada.
- Liu J. et al. (2018) Controls of nitrogen to phosphorus ratios in a Canadian prairie watershed. Global Water Futures 1st Annual General Meeting. Jun. 4-6, 2018. Hamilton, Ontario, Canada.
- Liu J. et al. (2018) Temporal and spatial controls of nitrogen to phosphorus ratios in a Canadian prairie watershed. Joint Meeting of the CGU—CSSS—CIG—ES-SSA—CSAFM. Jun. 10-14, 2018. Niagara Falls, Ontario, Canada.
- Liu J. et al. (2019) Impacts of cover crops and crop residues on phosphorus losses in cold climates: A review. Soils and Crops conference. Mar. 5-6, 2019. Saskatoon, Saskatchewan, Canada.
- Liu, J., Van Meter, K.J., and Basu, N.B. (2018). "Past, Present, and Future: Quantification of Long-Term Phosphorus Legacies in the Grand River Watershed," Global Water Futures 2018 Annual Science Meeting, Hamilton, ON (poster)
- Liu, Y., Zarfl, C., Basu, N. B., & Cirpka, O. A. (2018, December). Modeling the Fate of Sediments and Attached PAHs in a Base-Flow-Dominated River. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Lowitt, K., Levkoe, C., Pictou, S., Spring, A., Turlo, C., Williams, P., Sayers, D. (2018). "Fish as food": Food systems as an organizing concept for local community sustainability and fisheries policy. Communities, Conservation & Livelihoods Conference, St. Mary's University, Halifax, NS. May 28-30, 2018
- Lucia Scaff, Yanping Li, A. Prein, K. Ikeda, R. Rasmussen, C. Liu, 2018: Convective precipitation initiation over the eastern foothill of the Canadian Rockies under historical and future climate conditions. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada



- Lucia Scaff, Yanping Li, A. Prein, K. Ikeda, R. Rasmussen, C. Liu, (2018): Convective precipitation initiation over the eastern foothill of the Canadian Rockies under historical and future climate
- Lyon L. How does sporadic permafrost influence catchment-scale groundwater processes? Geotop Student Meeting – Orford, QC. March 2019
- Lyon LN, McKenzie J, Langston G, Carey SK. Effects of groundwater flow on permafrost distribution in a subarctic watershed. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- M. L. Macrae, F. Rezanezhad, K. Grant, J. Cober, V. Lam. Impacts of frost on P mobilization and transport in agricultural landscapes with temperate climates. 2018 AGU Fall Meeting, 10-14 December 2018, Washington DC, USA.
- Macrae, M.L., Ali, G., King, K., Plach, J., Puer, W., Morison, M., Tang, W. and Williams, M. Activation of surface and subsurface flow pathways in temperate, tile drained landscapes. Soil Science Society of America International Soils Meeting. January 6-9, 2019, San Diego, USA. (Oral presentation).
- Macrae, M.L., Rezanezhad, F., Grant, K.N., Cober, J.R., Van Eerd, L.L., Lam, W.V, Plach, J.M. Impacts of Frost on Phosphorus Mobilization and Transport in Agricultural Landscapes with Temperate Climates. Oral Presentation. American Geophysical Union Fall Meeting, Washington, D.C. December 2018.
- Mai J. and Li Z., (2018), Automatic subsetting of WRF derived climate change scenario forcings, IMPC Annual General Meeting, Saskatoon, SK, July 18-19, 2018.
- Mai J. and Tolson B., et al. (2018), Status report on the Great Lakes Runoff Inter-comparison Project for Lake Erie (GRIP-E), GWF Annual Science Meeting Hamilton, ON, June 4-6, 2018.
- Mai, J., B A. Tolson, H Shen, É Gaborit, N Gasset, V Fortin, M Dimitrijevic, M Abrahamowicz, D Durnford, YL Shin, T Stadnyk, LM. Fry, T Hunter, AD. Gronewold, J Smith, L Mason, L Read, K Fitzgerald, K Sampson, AF. Hamlet, F Seglenieks, S Gharari, S Razavi, A Haghnegahdar, D Princz, and A Pietroniro. 2018. The Great Lakes Runoff Inter-comparison Project for Lake Erie (GRIP-E). American Geophysical Union meeting, 10-14 December, Washington, DC.
- Mai, J., Tolson, B., Shen, H., Gaborit, E., Fortin, V., Dimitrijevic, M., Gasset, N., Durnford, D., Shin, Y., Stadnyk, T., Fry, L., Hunter, T., Gronewold, A., Smith, J., Mason, L., Read, L., FitzGerald, K., Sampson, K., Hamlet, A., Seglenieks, F., Gharari, S., Razavi, S., Haghnegahdar, A., Princz, D., Pietroniro, A., (2018), The Great Lakes Runoff Inter-comparison Project for Lake Erie (GRIP-E), American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- Malaj, E., Liber, K., and Morrissey C.A., (2018) Pesticide distribution trends in the Canadian Prairie Pothole Region. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, USA. November 4-8, 2018 (*Poster*)
- Malaj, E., Liber, K., and Morrissey, C. (2019) Pesticides contamination in wetlands of the Prairie Pothole Region. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)

- Malaj, E., Liber, K., Badiou, P., Sheedy, C., Headley, J., Peru, K., and Morrissey C.A., (2018) Large-scale risk assessment of pesticides in Canadian Prairie wetlands. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, USA. November 4-8, 2018 (*Presentation*)
- Malaj, E., Morrissey, C., and Liber, K. (2018) Occurrence and distribution of pesticides in the Prairie Pothole Region. In Aquatic Environment and Ecosystems: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (*Poster*)
- Mantyka-Pringle C, Messmer D, Leston L, Asong E, Bayne E, Bortolotti L, Sekulic G, Wheeler H, Howerter D & Clark R. (2018) Ghosts of climate and land-use past or present – antagonistic, synergistic and direct effects of aquatic communities. North American Congress for Conservation Biology, July 21-26, Toronto, Ontario, Canada. (*Presentation*)
- March, M, A. Laamrani, A. Berg, R. Martin, P. Voroney. 2018. Assessing soil organic carbon levels at the sub-field scale in Southwestern Ontario using a UAV mounted multispectral sensor. 14th Annual Precision Agriculture Conference. Montreal Quebec, Canada.
- March, M. M. Kopan, A. Berg, A. Laamrani, R. Pardo. 2018. Quantifying surficial crop residue using a supervised classification method and multispectral drone imagery. Joint meeting of the Canadian Geophysical Union, Canadian Soil Science Society and the Canadian Society for Agricultural and Forest Meteorology. Niagara Ontario.
- Marinier, S and J M Thériault (2018), Precipitation characteristics during winter storms over eastern Canada using convection-permitting climate model simulations, 8TH GEWEX Open Science Conference: Extremes and water on the edge, Canmore, Canada
- Marinos, R., & Basu, N. B. (2018). Geomorphic Versus Land Use Controls on the Source/Sink Behavior of the Riparian Zone. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Marjan P, Katzenback BA, Doxey AC, Craig PM, Giesy JP, Servos MR. From challenges to recommendations for brook trout (*Salvelinus fontinalis*) environmental DNA (eDNA) method development. Poster Presentation. *Canadian Ecotoxicity Workshop*. Vancouver, British Columbia, Canada. Sept 30 – Oct 3, 2018.
- Marjan P, Katzenback BA, Doxey AC, Craig PM, Giesy JP, Servos MR. Temporal changes in brook trout (*Salvelinus fontinalis*) environmental DNA (eDNA) detection rates in the Grand River sub-watershed, Ontario – Washington Creek case study. *Canadian Ecotoxicity Workshop*. Vancouver, British Columbia, Canada. Sept 30 – Oct 3, 2018.
- Markelov, I., Bocaniov, S., Kheyrollah Pour, H., and Van Cappellen, P. (2018). Dynamic modelling of geochemical (C, N, P, Fe, O, S) fluxes in lakes using a coupled water-column and sediment diagenesis model, Global Water Futures, Annual Science Meeting, Macmaster University, Canada, June 3-6.
- Martin T, Kehoe L, Mantyka-Pringle C, Chades I, Wilson S, Bloom R, David S, Fisher R, Mehl K, Prieto D, Wayland M, Wellicome T, Zimmer K, & Smith P (2018) Prioritizing recovery funding to maximize conservation of endangered species. North American Congress for Conservation Biology, July 21-26, Toronto, Ontario, Canada. (*Presentation*)

- Matte, D, J M Thériault, R Laprise (2018), Mixed precipitation occurrences over southern Québec, Canada, with warmer climate conditions using a Regional Climate Model. 8TH GEWEX Open Science Conference: Extremes and water on the edge, Canmore, Canada
- McFadden, V and J M Thériault (2018). Simulations of the ice storm in the Maritime Provinces on 24-26 January 2017, Canadian Meteorological and Oceanographic Society (CMOS) Congress, Halifax, Canada [OP]
- McFarlan, L., Whitfield, C.J., and Bedard-Haughn, A. (2019) Where's the P in Prairie Potholes? Understanding the role of wetlands in phosphorus retention and release. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (Poster)
- McFarlan, L., Whitfield, C.J., and Bedard-Haughn, A. (2019) Where's the P in Prairie Potholes? Understanding the role of wetlands in phosphorus retention and release. SENS Symposium, University of Saskatchewan, Saskatoon, SK March 28<sup>th</sup>, 2019 (Presentation)
- McIntosh, J.C. and Ferguson, G. (2019) Large-scale changes in subsurface water budgets from oil and gas production. AGU Fall Meeting. Washington, DC. Dec. 9-13, 2018. (Presentation)
- McKenzie J. "Effects of groundwater flow on permafrost distribution in a subarctic watershed" CGU Joint Meeting – Niagara Falls, ON. June 2018
- McKenzie J. Groundwater Flow and Permafrost Distribution in a Subarctic Watershed. GWF Annual Science Meeting – Hamilton, ON. May 2018
- McKenzie, S.M., Arain, A., Pisaric, M., & Parker, W. (2018, June 10-14). Climate and Stand Density Effects on Growth in a Red Pine Plantation in Southern Ontario. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- McKenzie, S.M., Arain, A., Pisaric, M., & Parker, W. (2018, June 10-14). *Climate and Stand Density Effects on Growth in a Red Pine Plantation in Southern Ontario*. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- McKenzie, S.M., Arain, A., Pisaric, M., Slater, G., & Kim, S-T. (2018, June 3-6). Stable Isotope Methods to Evaluate Climatic Controls on Intrinsic Water Use Efficiency in Forest Ecosystems. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- McKenzie, S.M., Arain, A., Pisaric, M., Slater, G., & Kim, S-T. (2018, June 3-6). *Stable Isotope Methods to Evaluate Climatic Controls on Intrinsic Water Use Efficiency in Forest Ecosystems*. Poster presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- McKenzie, S.M., Arain, A., Pisaric, M., Slater, G., & Kim, S-T. 2018. Stable Isotope Methods to Evaluate Climatic Controls on Intrinsic Water Use Efficiency in Forest Ecosystems. Poster presentation at the McMaster Water Week Research Showcase, Hamilton, ON, Canada.
- McKenzie, S.M., Arain, A., Pisaric, M., Slater, G., & Kim, S-T. 2018. *Stable Isotope Methods to Evaluate Climatic Controls on Intrinsic Water Use Efficiency in Forest Ecosystems*. Poster presentation at the McMaster Water Week Research Showcase, Hamilton, ON, Canada.

- McLeod, M., Van Meter, K.J., and Basu, N.B. (2019). Beyond the Mass Balance: Modeling 100 years of Phosphorus Dynamics in a Great Lakes Watershed. World Wetland Day, University of Waterloo, Feb 4, 2019. (Won Best Undergraduate Poster Award)
- Mekonnen, B.A., Pomeroy, J., Spence, C., Shook, K.R., Whitfield, C.J., and Wolfe, J.D. (2019) Virtual basin modelling approach to assess effects of climate change and wetland drainage on streamflows in the Prairie. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Mendoza, C., Lukenbach, M., Twerdy, P., Carey, S.K., Devito, K., Landhausser, S. 2018. Ecohydrological development of a reclaimed upland-wetland system constructed on soft tailings at an oil-sand mine, NE Alberta, Canada. Presented at the European Geosciences Union Meeting, June 2018, April, Vienna, Austria.
- Menounos B, Murherjee K, Shea J, Pomeroy, J. Airborne measurement of seasonal snow in western Canada. Global Water Futures Annual Meeting, Hamilton, Ontario, 3-6 June, 2018.
- Mercer JJ, Westbrook CJ. Hydrological processes regulating alpine wetland water table dynamics. Society of Wetland Science Annual Meeting, Denver, Colorado, USA, May 29 – June 1, 2018.
- Mirnasl, N., P. Deadman, A. Frank, D. Robinson, M. Macrae, “Assessing the impact of Beneficial Management Practices (BMPs) on P loading using ArcSWAT”. Poster. McMaster Water Week 2018 – November 20-23, 2018
- Molot L, Schiff SL, Venkiteswaran JJ, Verschoor M, Baulch H and S Higgins (2018). Hierarchy of Point Source Management Approaches to Mitigate Cyanobacteria Blooms. IAGLR, Toronto ON, 18-22 June.
- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2019 Canadian Society of Limnologists annual conference, London, ON, “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018 Restoration of eutrophic lakes, Lahti, Finland; “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Molot, L.A., S.L. Schiff, J.J. Venkiteswaran, H.M. Baulch, S.N. Higgins, A. Zastepa, M.J. Verschoor and D. Walters. 2018 International Association for Great Lakes Research, annual conference, Toronto; “Guiding principles for preventing cyanobacteria blooms: Integrating nutrient limitation and sediment redox science into watershed management”.
- Mora, M.F. (2018) Water governance in Indigenous territories in Canada. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (*Poster*)
- Mora, M.F., Bradford, L., Reed, M., Bharadwaj, L. (2018) Gender and Water Governance in the Global North: A Scoping Review. 2018 IGU Regional Conference - CAG Annual Meeting - NCGE Annual Conference. Quebec, August 9th. (*Presentation*)



- Mora, M.F., Watson, M., Johnston, A.B.D., and Bharadwaj, L. (2019) Collaborative water governance: A holistic perspective towards Mistawasis Nêhiyawak's well-being. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (*Poster*)
- Morales-Marin L., Sanyal P., Kadowoki H., Li Z., Rokaya P., Lindenschmidt K. (2018). A hydrological and water temperature modelling framework to simulate the timing of river freeze-up and ice-cover breakup in large-scale catchments (C52B-05). American Geophysical Union (AGU) 2018 Annual Meeting, Washington, D.C., 10 - 14 December 2018.
- Morgan, L.R., Hayashi, M., Negm, A., Cey, E.E. (2018) Land-use effects on depression-focussed groundwater recharge in the prairies: Water balance approach. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Muenich, R., Scavia, D., Read, J., Kerkez, B., Teshager, A., Bocaniov, S., Hu, Y., Kalcic, M., Wang, Y.-C., Long, C., and Vacarro, L. (2018). Watershed Assessment of Detroit River Nutrient Loads to Lake Erie. SCDRS Advisory Group Meeting, Mar. 15, 2018; University of Windsor, Windsor, Ontario.
- Nan Zhang, Saif Syed, Zeinab Hosseini-Doust, Charles-Francois de Lannoy, "Electrically conductive membranes as sensors: stability, conductivity, and sensitivity", North American Membrane Society, NAMS 2019, Pittsburgh, PA, US (May 12-15, 2019) (talk)
- Nan Zhang, Zeinab Hosseini-Doust, Charles-Francois de Lannoy, "Detection of Electrically conductive membrane fouling by impedance spectroscopy", North American Membrane Society, NAMS 2019, Pittsburgh, PA, US (May 12-15, 2019) (poster)
- Neary L, \*C Remmer, \*M Kay, \*W Klemt, B Wolfe and R Hall. (2018). Influences on carbon balance of shallow lakes, Peace-Athabasca Delta, Alberta. *Cold Regions Research Centre Day*, Wilfrid Laurier University, Waterloo.
- Neary L, \*C Remmer, \*M Kay, \*W Klemt, B Wolfe and R Hall. (2018). Effects of spring flooding and primary productivity on lake carbon balance in the Peace-Athabasca Delta, Alberta (Canada). *Canadian Association of Geographers – Ontario Division Annual Meeting*, University of Toronto, Toronto.
- Neary, L., \*Remmer, C., \*Kay, M., Hall, R. and B. Wolfe. (2018) Widespread photosynthetically-induced CO<sub>2</sub> invasion in numerous lakes across the Peace-Athabasca Delta (Alberta, Canada). Poster presented at Women in Science Undergraduate Symposium, University of Waterloo, Waterloo, Canada.
- Neary, L., \*Remmer, C., \*Kay, M., Hall, R. and B. Wolfe. (2018) Widespread photosynthetically-induced CO<sub>2</sub> invasion in numerous lakes across the Peace-Athabasca Delta (Alberta, Canada). Poster presented at World Water Day Symposium, University of Waterloo, Waterloo, Canada.
- Neary, L., \*Remmer, C., \*Kay, M., Hall, R. and B. Wolfe. (2018) Widespread photosynthetically-induced CO<sub>2</sub> invasion in numerous lakes across the Peace-Athabasca Delta (Alberta, Canada). Poster presented at Canadian Geophysical Union, Western University, London, Canada.

- Neary, L., \*Remmer, C., \*Klemt, W., \*Kay, M., Hall, R. and B. Wolfe. (2019). Effects of spring flooding and primary productivity on lake carbon balance in the Peace-Athabasca Delta, Alberta. Oral presentation at Association for the Sciences of Limnology and Oceanography Conference, San Juan, Puerto Rico.
- Neary, L., \*Remmer, C., \*Klemt, W., \*Kay, M., Hall, R. and B. Wolfe. (2019) Determining major influences on carbon balance of shallow northern floodplain lakes (Peace-Athabasca Delta, Alberta) Oral presentation at Canadian Conference for Fisheries Research and Society of Canadian Limnology Symposium, London, ON.
- Neary, L., \*Remmer, C., \*Klemt, W., \*Kay, M., Hall, R. and B. Wolfe. (2018) Effects of flooding and primary productivity on lake carbon balance in the Peace-Athabasca Delta (Alberta). Oral presentation at Canadian Association of Geographers of Ontario Conference, University of Toronto, Toronto, Canada.
- Neary, L., \*Remmer, C., \*Klemt, W., \*Kay, M., Hall, R. and B. Wolfe. (2018) Determining major influences on carbon balance of northern floodplain lakes (Peace-Athabasca Delta, Alberta). Oral presentation at Cold Regions Research Centre Symposium, Wilfrid Laurier University, Waterloo, Canada.
- Negm, A., Hayashi, M., Itenfisu, D. (2018) Comparison of root water uptake and soil moisture dynamics under contrasting land uses in the Canadian Prairies. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Negm, A., Rasouli, K., Hayashi, M. (2018) The impacts of land cover changes on local-scale evapotranspiration and precipitation, and hydrological processes in the Canadian prairies. General Assembly of the European Geoscience Union, Vienna, Austria, April 8-13, 2018. (*Presentation*)
- New Mass Spectrometry Techniques for the Measurement of Persistent Organic Pollutants. Jones, Paul D and Giesy, John P. SETAC Europe Annual Meeting, Rome, Italy, May 13-17 2018
- Nwaishi, F.C., Plach, J.M., Morrison, M. Q., Macrae, M.L. & Petrone, R. M. 2018. Potential Implications of Exogenous Nutrient Inputs from Oil Sands Operations on the Nutrient Balance and Carbon Storage of Western Boreal Peatlands. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.
- Okamura, M., Ueyama, M., Ito, A. et al. incl. Sonnentag, O. 2018. Modeling greenhouse gas budget in northern ecosystems using a process-based ecosystem model, VISIT. B41H-0298, Washington, D.C., USA.
- Owca T, \*C Remmer, \*M Kay, \*J Faber, B Wolfe and RI Hall. (2018). Using paleolimnological baselines to assess sources and pathways of metals in surface sediment of floodplain lakes (Peace-Athabasca Delta, Alberta, Canada). *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Brock University, St. Catharines.
- Owca T, \*C Remmer, \*M Kay, \*J Faber, B Wolfe and RI Hall. (2018). Paleolimnological approaches for assessing sources and pathways of metals in surface sediment of floodplain lakes

- (Peace-Athabasca Delta, Alberta, Canada). *International Paleolimnology Symposium*, Stockholm, Sweden.
- Owca T, \*J Faber, \*C Remmer, B Wolfe and R Hall. (2019). Use of pre-industrial baselines to monitor for sources and pathways of metals in surface sediment of floodplain lakes in the Peace-Athabasca Delta (Alberta, Canada). *ASLO 2019 Aquatic Sciences Meeting*, San Juan, Puerto Rico.
- Owca TJ, \*ML Kay, \*J Faber, \*C Remmer, JA Wiklund, BB Wolfe and RI Hall. (2018). Using pre-industrial baselines to assess sources and pathways of metals in the PAD. *Cold Regions Research Centre Day*, Wilfrid Laurier University, Waterloo.
- Owca TJ, \*ML Kay, \*J Faber, \*C Remmer, JA Wiklund, BB Wolfe and RI Hall. (2018). Use of pre-industrial baselines to assess sources and pathways of metals in surface sediment of floodplain lakes in the Peace-Athabasca Delta (Alberta, Canada). *ArcticNet Annual Scientific Meeting*, Ottawa.
- P. Marsh, C. Dersken, \*G. Hould Gosselin, \*A. Jitnikovitch, \*B. Majumder, A. Pietroniro, P. Secombe-Hett, J. Therialut, A. Tourc, M. Tsui, \*B. Walker, and \*E. Wilcox. (2018). Developing a novel snow observing system for improving the understanding and prediction of climate, hydrology, permafrost and ecology. *ArcticNet Annual Science Conference*, Ottawa, Dec. 2018.
- Packull-McCormick S, Laird BD. (2018) Human biomonitoring to complement risk assessments of environmental contaminants in traditional food systems. *Leveraging Systems Approaches to Improve Human & Planetary Health Workshop*. Waterloo, Canada. (Poster)
- Paleoecotoxicology: The application of novel tools to assess the toxicity of historically contaminated lake sediments. Laurentian Chapter of the Society of Environmental Toxicology and Chemistry Student Pub Night, Ottawa, Ontario. [received best student oral presentation award.]
- Pardo, R., Berg, A. A., & Warland, J. S. (2018, December). Measuring freeze/thaw (F/T) state and frozen soil moisture fraction using 50 MHz coaxial impedance dielectric reflectometry probes in mid-latitudinal soils. In *AGU Fall Meeting Abstracts*.
- Pardo-Lara, R., A. Berg and J. Warland. 2018. Identification of a dynamic temperature threshold for soil moisture freeze/thaw (F/T) state classification using the soil real dielectric constant. Joint meeting of the Canadian Geophysical Union, Canadian Soil Science Society and the Canadian Society for Agricultural and Forest Meteorology. Niagara, Ontario.
- Pardo-Lara, R., A.A. Berg, J. Warland. 2018. Measuring freeze/thaw (F/T) state and frozen soil moisture fraction using 50 MHz coaxial impedance dielectric reflectometry probes in mid-latitudinal soils. *American Geophysical Union Fall meeting*. Washington D.C.
- Park S, Sekerinski E. A Notebook Format for the Holistic Design of Embedded Systems (Tool Paper). Talk presented at: 4th Workshop on Formal Integrated Development Environment;; 2018 Jul 14; Oxford, U.K.
- Park S, Sekerinski E. A Notebook Format for the Holistic Design of Embedded Systems (Tool Paper). In: 4th Proceedings Workshop on Formal Integrated Development Environment, Oxford, England, 14 July 2018 [Internet]. Open Publishing Association; 2018. p. 85–94.

- (Electronic Proceedings in Theoretical Computer Science; vol. 284). Available from: <http://eptcs.web.cse.unsw.edu.au/content.cgi?FIDE2018>
- Patrick, R., Strickert, G.E.H., and Jardine, T., (2018) Community-Engaged Scholarship and Indigenous Water Stewardship Planning. Planning Geography, Water Resources and Hydrology, Canada. American Association of Geographers Annual Meeting. Washington, DC, April 14th, 2018. (*Presentation*)
- Pattison-Williams JK, Pomeroy JW, Badiou P, Gabor S, (2018). Wetlands, Flood Control and Ecosystem Services in the Smith Creek Drainage Basin: A Case Study in Saskatchewan, Canada. Alberta Land Institute's "Land, Water and Society" Conference, Edmonton, Canada, May 30, 2018.
- Paul Craig. Cost of Living in the Grand River: energetics, stress and epigenetics. 13th International Congress on the Biology of Fish, Calgary, Alberta, Canada, July 15th-19th, 2018.
- Pavlovskii, I., Hayashi, M. (2018) Pitfalls in groundwater recharge evaluation using chloride mass balance in the Canadian Prairies. Joint Annual Meeting of the Canadian Geotechnical Society and the International Association of Hydrogeologists - Canadian National Chapter. Edmonton, Alberta, September 23-26, 2018. (*Presentation*)
- Peddle, D.R. and 64 co-authors [including A Berg], 2018. "An Overview of Canadian Earth Observation Science and Excellence for Arctic and Northern Monitoring and Applications." Invited presentation by D.Peddle at EUMETSAT, Darmstadt, Germany, 9 April 2018.
- Pelto B, Menounos B. Multi-year Seasonal Mass Balance Using Airborne Laser Altimetry, Columbia Basin, Canada. Annual Meeting of the American Geophysical Union, Washington, DC, 10-14 December, 2018.
- Perron, N. S., \*Pappas, C., Sonnentag, O., Hopkinson, C., Chasmer, L., and Baltzer J. (2018). Tree- and stand-level hydrodynamics of black spruce (*Picea mariana*) and their environmental controls in forested boreal peat landscapes. [B11B-0276] to be presented at 2018 Fall Meeting, AGU, Washington, D.C., 10 Dec, poster.
- Perron, N.S., \*Pappas, C, Sonnentag, O., Hopkinson, C., Chasmer, L., Baltzer, J.L. (2018), Tree- and stand-level hydrodynamics of black spruce (*Picea mariana*) and their environmental controls in forested boreal peat landscapes. Abstract B11B-0276, 10-14 December 2018, Washington, D.C., USA.
- Pietroniro, A., Pomeroy, J., Razavi, S., Wheeler, H., (2018), The Global Water Futures Core Modelling Strategy, American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- Pietroniro, A., Pomeroy, J., Wheeler, H., Fortin, V., Davison, B., Shook, K., Razavi, S., (2018), A Community Hydrological Modelling Framework for Global Water Futures, European Geosciences Union (EGU) General Assembly, 8–13 April 2018, Vienna, Austria (Oral Presentation).
- Pilger, N, L. Mann, A. Berg, G. Taylor, P. Jossee. 2018. Semantic segmentation of roadside survey imagery for post-harvest tillage assessment. 14th Annual Precision Agriculture Conference. Montreal, Quebec, Canada.



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- Plach, J., Macrae, M.L., Kompanizare, M., Tang, V., “Phosphorus losses from agricultural fields in Ontario, Canada: Implications for land management efficacy in cold regions” CGU Annual Meeting, June 10-14, 2018, Niagara Falls, Ontario, Canada.
- Plach, J.M., Macrae, M.L., Kompanizare, M., and Tang, V. Phosphorus losses from agricultural fields in Ontario, Canada: Implications for land management efficacy in cold regions. Poster Presentation. Canadian Geophysical Union (CGU): June 10-14, 2018, Niagara Falls, Ontario, Canada.
- Plach, J.M., Macrae, M.L., Williams, M., Lee, B., and King, K. Dominant glacial landforms in the lower Great Lakes region exhibit differences in soil chemistry and potential risk of phosphorus loss. Oral Presentation. Global Water Futures: Annual General Meeting: June 3-6, 2018, Hamilton, Ontario, Canada.
- Puer, W. American Geophysical Union, Washington, D.C., Dec. 2018 – Poster presentation. Phosphorus losses from agricultural fields in Ontario Canada: Implications for land management efficacy in cold regions.
- Puer, W., Plach, J., Kompanizare, M., Carlow, R., Macrae, M., Brunke, R., McKague, K., “When and how does phosphorus runoff fields? Global Water Future, Local Water Solutions in a Changing Climate Workshop, Waterloo, ON, December, 2018.
- Pomeroy J, Pietroniro A, Shook K, (2018). Using Science and Enlightened Modelling to Fight Hydromthology, Zombie Models and Hydrological Indifference in Prediction of Ungauged Basins. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018.
- Pomeroy J, Pietroniro A, Shook K, (2018). Using Science and Enlightened Modelling to Fight Hydromthology, Zombie Models and Hydrological Indifference in Prediction of Ungauged Basins. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018
- Pomeroy J, Pietroniro A, Shook K. Using Science and Enlightened Modelling to Fight Hydromthology, Zombie Models and Hydrological Indifference in Prediction of Ungauged Basins. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018
- Pomeroy JW, Wheeler HS, Baltzer JL, Baulch HM, Carey SK, Boger P, Martz LW, Pietroniro A, Rudolph DL, Stewart RE, Van Cappellen P, DeBeer CM. Global Water Futures – Translation of Transdisciplinary Observations, Science, and Predictions into Societal Action for Water and Climate Imperatives in Cold Regions. Presented at the American Geophysical Union Meeting, Washington, DC, December 2018.
- Pomeroy, J., Pietroniro, A., Shook, K., 2018. Using Science and Enlightened Modelling to Fight Hydromthology, Zombie Models and Hydrological Indifference in Prediction of Ungauged Basins. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018.
- Pomeroy, J., Pietroniro, A., and Shook, K. (2018) Using Science and Enlightened Modelling to Fight Hydromthology, Zombie Models and Hydrological Indifference in Prediction of Ungauged

- Basins. European Geosciences Union (EGU) General Assembly, Vienna, Austria. April 8, 2018. (*Presentation*)
- Popović, N., Green, A., Kessel, E., Petrone, R.M. 2018. Carbon and Water Fluxes During the Development of a Reclaimed Post-oilsands Landscape. Oral Presenter at the Canadian Geophysical Union (CGU) annual conference, Niagara Falls, June, 2018.
- Potter, S., Rogers, BM, Walker, XJ, Veraverbeke, S, Hoy, EE, Baltzer, JL, Goetz, SJ, Jenkins, LK, Johnstone, JF, Kane, ES, Mack, MC, Turetsky, MR, Bourgeau-Chavez, LL, French, NHF. 2018. Above and belowground carbon emissions from historical fires across Alaska and Canada.
- Pradhananga D, Pomeroy JW, (2018). Hydrological Response of Two Mountain Glaciers in the Canadian Rockies to Warming Climate and Change in Glacier Configurations. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- Pradhananga D, Pomeroy JW. Hydrological Response of Two Mountain Glaciers in the Canadian Rockies to Warming Climate and Change in Glacier Configurations. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- Pretty, T. and Gray. D.K. (2018). Impact of forest fire on aquatic invertebrates in subarctic lakes of the Taiga Plains. McMaster Water Week Research Showcase, Hamilton, Ontario
- Pretty, T. and Gray. D.K. (2018). Impact of forest fire on aquatic invertebrates in subarctic lakes of the Taiga Plains. Arctic Net, Ottawa, Canada
- Pretty, T. and Gray. D.K. (2019). Impact of forest fire on aquatic invertebrates in subarctic lakes of the Taiga Plains. Association for the Sciences and Limnology and Oceanography, San Juan , Puerto Rico
- Radic V, Mekdes T, Menounos B, Fitzpatrick, N. Evaluation of Dynamically Downscaled Near-surface Mass and Energy Fluxes for Three Mountain Glaciers, British Columbia, Canada. Annual Meeting of the American Geophysical Union, Washington, DC, 10-14 December, 2018.
- Ramkissoon, N. 2018. Perceptions of Managers for communicating about freshwater HABs in the Prairies. School of Public Health Poster Day. University of Saskatchewan, Saskatoon, SK. September 28, 2018
- Ramkissoon, N. 2018. Perceptions of Managers for communicating about freshwater HABs in the Prairies. Saskatchewan Epidemiology Association, 18th Annual Fall Symposium & Workshop, University of Saskatchewan, Saskatoon, SK, October 3-4th 2018.
- Rasouli K, Negm A, Pavlovskii I, Pomeroy JW, Hayashi M, (2018). Surficial geology-based mapping of the future changes in groundwater recharge in a semi-arid watershed in the Canadian Prairies with climate warming. American Geophysical Union (AGU) Annual Meeting, Washington, United States, December 14, 2018
- Rasouli, K., Negm, A., Pavlovskii, I., Pomeroy, J.W., Hayashi, M. (2018) Surficial geology-based mapping of the future changes in groundwater recharge in a semi-arid watershed in the Canadian Prairies with climate warming. Fall Meeting of the American Geophysical Union, Washington D.C., December 10-14, 2018. (*Presentation*)

- Ratelle M, Laird BD. (2018). Investigation of Cadmium Exposure in Regards to Smoking Status and Moose and Caribou Organs Consumption in Northern Canada. International Society of Exposure Science-International Society of Environmental Epidemiology (ISES-ISEE) Joint Annual Meeting. Ottawa, Canada.
- Ratelle M, Skinner K, Swanson H, Laird BD (2018). Community Based Contaminant Biomonitoring in the Northwest Territories, Canada. Tribal Environmental Health Summit. Corvallis, USA (Poster).
- Razavi, S., Gupta, H., (2018) Revisiting the Fundamental Basis of Global Sensitivity Analysis for Dynamical Environmental Models, 9th International Congress on Environmental Modelling and Software, June 24-28 2018, Fort Collins, CO, USA.
- Razavi, S., Sheikholeslami, R., Gupta, H., Haghnegahdar, A., (2018) An Overview of VARS-TOOL and it New Features for Comprehensive, Efficient, and Robust Sensitivity and Uncertainty Analysis of Earth and Environmental Systems Models, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Razavi, S., Sheikholeslami, R., Gupta, H., Haghnegahdar, A., (2018), VARS-TOOL: A Novel Toolbox for Comprehensive and Efficient Global Sensitivity Analysis, American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- Remmer C, \*WH Klemm, BB Wolfe and RI Hall. (2018). Integrating modern and paleolimnological data to assess hydroecological conditions in a high-latitude floodplain landscape. *International Paleolimnology Symposium*, Stockholm, Sweden.
- Remmer CR, \*CAM Savage, \*J Telford, BB Wolfe and RI Hall. (2018). Field testing cellulose-water  $\delta^{18}\text{O}$  relations in periphytic algae for paleohydrological reconstructions. *International Paleolimnology Symposium*, Stockholm, Sweden.
- Remmer CR, \*L Neary, \*T Owca, BB Wolfe and RI Hall. (2019). Isoscapes and limnoscapes of the Peace-Athabasca Delta: A foundation for hydrolimnological monitoring. *Canadian Conference for Fisheries Research / Society of Canadian Limnologists*, London.
- Remmer CR, \*T Owca, \*L Neary, JA Wiklund, \*M Kay, BB Wolfe and RI Hall. (2019). Delineating extent and magnitude of river flooding in a northern floodplain landscape using water isotope tracers. *ASLO 2019 Aquatic Sciences Meeting*, San Juan, Puerto Rico.
- Remmer CR, \*T Owca, \*L Neary, JA Wiklund, \*M Kay, BB Wolfe and RI Hall. (2018). Tracking the extent and magnitude of the 2018 spring flood in the Peace-Athabasca Delta (Canada) using water isotope tracers. *ArcticNet Annual Scientific Meeting*, Ottawa.
- Remmer CR, \*T Owca, \*L Neary, JA Wiklund, \*M Kay, BB Wolfe and RI Hall. (2018). Tracking the extent and magnitude of the 2018 spring flood in the Peace-Athabasca Delta (Canada) using water isotope tracers. *Cold Regions Research Centre Day*, Wilfrid Laurier University, Waterloo.
- Reynolds and Rooney. Avian diversity in mountain peatlands. Biology Graduate Student's Symposium, University of Waterloo. 25 April 2019.
- Rezanezhad, F., Milojevic, T., Oh, D., Smeaton, C., Parsons, C., McCarter, C., and Van Cappellen, P. (2018). Soil hydrogeochemical processes under changing winter conditions. Canadian Geophysical Union Annual Meeting 2018, Niagara Falls, Ontario, June 13, 2018

- Robinne, F.N., Bladon, K.D., Silins, U., Emelko, M.B., Kienzle, S.W., Parisien M.A., Flannigan, M.D. 2018. A simple, reproducible model to assess regional-scale community water supply hazard from wildfire. Presented at the Joint Forest and Water Conference, November 2018, in Valdivia, Chile.
- Robinne, F.N., Hallema, D.W., Bladon, K.D. 2018. Wildfire impacts on hydrologic systems: the state of knowledge in high-latitude forests of North-America. Presented at the Joint Forest and Water Conference, November 2018, in Valdivia, Chile.
- Rohanizadegan M, Kosovic B, Pomeroy JW, Petrone RM, Helgason WD, (2018). Evaluating evaporative fluxes in complex mountain terrain. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Rohanizadegan M, Kosovic B, Pomeroy JW, Petrone RM, Helgason WD. 2018. Evaluating evaporative fluxes in complex mountain terrain. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Rohanizadegan, M., Kosovic, B., Pomeroy, J.W., Petrone, R.M., Helgason, W.D. 2018. Evaluating evaporative fluxes in complex mountain terrain. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018.
- Rokaya, P. and Lindenschmidt, K.-E. (2018) A novel stochastic modelling framework for ice-jam flood risk assessment and hazard mapping. American Geophysical Union (AGU) 2018 Annual Meeting, Washington, D.C., 10 - 14 December 2018.
- Rokaya, P., Lindenschmidt, K.-E., Budhathoki, S. and Das, A. (2018) Ice-jam floods: Recent trends and patterns. Cryospheric Extremes Workshop, Helsinki, Finland, 26-28 April 2018.
- Roy, A., P. Toose, A. Mavrovic, C. Pappas, A. Berg, T. Rowlandson, C. Derksen, A. Royer, M. El-Amine, W. Helgason, A. Barr, O. Sonnentag, 2018. Use of L-Band ground-based radiometers for freeze/thaw retrieval in a boreal forest. IEEE Geoscience and Remote Sensing Symposium. 9042-9044 Valencia, Spain.
- Royall, Bolding, Cobbaert, Rooney. Evaluating the evaluation tool: can we rapidly estimate wetland function? Canadian Society for Ecology and Evolution Annual Conference. Guelph, Ontario. Poster. 19 July 2018.
- Royall, Rooney. Evaluating the evaluation tool for wetland assessment in Alberta. Biology Graduate Student's Symposium, University of Waterloo. 25 April 2019
- Ruecker, A. Berg, C. Champagne. 2018. Reducing Error Between Satellite and in situ Soil Moisture over Canadian Croplands. Joint meeting of the Canadian Geophysical Union, Canadian Soil Science Society and the Canadian Society for Agricultural and Forest Meteorology. Niagara, Ontario.



- Ruiz Caldas, M. X., Evans, S., Wu, Y., de Lannoy, C.F., 2019. Gordon Conference: Environmental Nanotechnology, Newry, ME
- Rupasinghe, P. A, Chow-Fraser, P. 2018. Standardized remote-sensing strategy to study post-fire health recovery of boreal forests in Alberta, Canada. Proceedings of the American Geophysical Union (AGU) Fall Meeting, The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change, Walter E. Washington Convention Center, 801 Mt. Vernon Place, NW, Washington DC, USA. December 2018.
- Rupasinghe, P. A, Chow-Fraser, P. 2018. Standardized remote-sensing strategy to study post-fire health recovery of boreal forests in Alberta, Canada. Proceedings of the Global Water Futures AGM, McMaster University, 1280, Main Street West, Hamilton, ON, Canada. June 2018.
- Salk KR, Venkiteswaran JJ, Couture RM, Higgins SN, Paterson MJ, and SL Schiff. 2018. Pairing Ecosystem Modelling And Long-term Datasets For Harmful Algal Bloom Forecasting. ASLO Summer Meeting
- Salman, M., Rudolph, D. L. and Steelman, C. (2019). Mapping Permafrost Continuity in the Central Mackenzie Valley Using Electrical Geophysical Methods. 2nd Annual Open Science Meeting: Global Water Futures. Saskatoon, Saskatchewan, Canada, May 15-17, 2019.
- Samson, M.I., Van Meter, K.J., and Basu, N.B. (2018). "Urban Metabolism of the Greater Toronto Area: A Study of Nitrogen and Phosphorus Across an Urban, Suburban, Rural Continuum," June 13, 2018 Joint Meeting of the Canadian Geophysical Union and Canadian Soil Science Society, Niagara Falls, ON.
- Samson, M.I., Van Meter, K.J., and Basu, N.B. (2018). "Urban Metabolism of the Greater Toronto Area: A Study of Nitrogen and Phosphorus Across an Urban, Suburban, Rural Continuum," Global Water Futures 2018 Annual Science Meeting, Hamilton, ON.
- Sauer, S.J., Arain, A., Bartlett, P., Davison, B., & Melton, J.R. (2018, June 3-6). Integration of a Slope-Based Soil Water Algorithm into a Coupled Land Surface and Dynamic Vegetation Model. Oral presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- Sauer, S.J., Arain, A., Bartlett, P., Davison, B., & Melton, J.R. (2018, June 10-14). Integration of a Slope-Based Soil Water Algorithm into a Coupled Land Surface and Dynamic Vegetation Model. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Sauer, S.J., Arain, A., Bartlett, P., Davison, B., & Melton, J.R. (2018, June 3-6). *Integration of a Slope-Based Soil Water Algorithm into a Coupled Land Surface and Dynamic Vegetation Model*. Oral presentation at the meeting of the Global Water Futures (GWF), Hamilton, ON, Canada.
- Sauer, S.J., Arain, A., Bartlett, P., Davison, B., & Melton, J.R. (2018, June 10-14). *Integration of a Slope-Based Soil Water Algorithm into a Coupled Land Surface and Dynamic Vegetation Model*. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.

- Sauer, S.J., Arain, A., Princz, D., Bartlett, P., Davison, B., & Melton, J.R. (2018, November 20). Development of the MESH-CTEM Hydrological-Biogeochemical Model. Poster presentation at the McMaster Water Week Research Showcase, Hamilton, ON, Canada.
- Sauer, S.J., Arain, A., Princz, D., Bartlett, P., Davison, B., & Melton, J.R. (2018, November 20). *Development of the MESH-CTEM Hydrological-Biogeochemical Model*. Poster presentation at the McMaster Water Week Research Showcase, Hamilton, ON, Canada.
- Schiferl, L.D., Biraud, S., Euskirchen, E.S. et al. incl. Sonnentag, O. (2018), Quantifying regional-scale carbon fluxes from arctic and boreal ecosystems: insights from recent campaigns and long term trends. Abstract A41C-06, 10-14 December 2018, Washington, D.C., USA.
- Schultz M, J Leathers, I Jasiak, JJ Venkiteswaran, MC English, BB Wolfe, RI Hall, SL Schiff, Schultz M, J Leathers, I Jasiak, JJ Venkiteswaran, MC English, BB Wolfe, RI Hall, SL Schiff, Schultz M, J Leathers, I Jasiak, JJ Venkiteswaran, MC English, BB Wolfe, RI Hall, SL Schiff, J Hickman and R Connon. 2018. Arsenic mobility in terrestrial and aquatic ecosystems, NWT. Cold Regions Research Centre Day, Wilfrid Laurier University, Waterloo.
- Servos, M. (2018). Modelling the response of fish to major infrastructure upgrades in wastewater treatment plants, GWF Annual Science Meeting, McMaster University, June 3-6, 2018.
- Servos, M. and J. Giesy. Next generation solutions to ensure healthy water resources for future generations Global Water Inception Meeting, Waterloo, Ont., Jan. 21-23, 2018.
- Servos, M. P. Craig, W. Parker. Can stressors associated with wastewater be managed to reduce environmental risk? Global Water Futures Operations Meeting, Saskatoon, Sask. Jan. 22-23, 2019.
- Servos, M., L. Bragg, H. Dhiyebi, G. Tetreault M. Fuzzen, K. Hicks, P. Marjan, M. Arlos, W. Parker. Modeling the response of fish to major infrastructure upgrades in wastewater treatment plants. Inaugural Annual Science Meeting, Global Water Futures. Hamilton, Ontario, June 3-6, 2018. abstract
- Servos, M., L. Bragg, H. Dhiyebi, G. Tetreault, M. Fuzzen, K. Hicks, P. Marjan, M. Arlos, W. Parker. Modelling the response of fish to major infrastructure upgrades in wastewater treatment plants, GWF Annual Science Meeting, McMaster University, June 3-6, 2018. Abstract
- Servos, M.R., L. Bragg, H. Dhiyebi, G. Tetreault, M. McMaster, M. Fuzzen, K. Hicks, P. Marjan, K. McCann, N. Srikanthan, W. Parker, M. Arlos. Modeling the response of fish to major infrastructure upgrades in wastewater treatment plants. 45th Canadian Ecotoxicity Workshop, Vancouver, BC, Sept. 30 - Oct. 3, 2018. abstract
- Servos, M.R., L. Bragg, H. Dhiyebi, G. Tetreault, M. McMaster, W. Parker, E. McCann, N. Srikanthan, M. Fuzzen, K. Hicks, P. Marjan, M. Arlos. Major wastewater treatment plant infrastructure upgrades reduce adverse biological responses in wild fish in the Grand River. 13th International Congress on the Biology of Fish, Calgary, Alberta, July 15-19, 2018. abstract
- Shah P, Venkiteswaran J, Molot L. Phytoplankton Fractionation of Iron. CCFFR/SCL 2019 London ON. January 6-10, 2019.
- Shah P. 2018. Phytoplankton Fractionation of Iron. IFHAB. 16 April.

- Shatilla NJ, Carey SK, Tang W, Bonn H. High frequency data provides new insights into stream biogeochemistry at an alpine headwater catchment underlain by discontinuous permafrost in Yukon Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Shea J, Whitfield P, Pomeroy J, (2018). The role of basin geometry on snow sensitivity in mountain basins. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Shea J, Whitfield P, Pomeroy J. The role of basin geometry on snow sensitivity in mountain basins. Joint Meeting of the Canadian Geophysical Union (CGU), Canadian Soil Science Society, Computational Infrastructure in Geodynamics, Eastern Section of Seismological Society of America and Canadian Society for Agricultural and Forest Meteorology, Niagara Falls, Canada, June 10, 2018
- Sheikholeslami, R., Haghnegahdar, A., Razavi, S., (2018), Strategies for Handling Simulation Model Crashes in Global Sensitivity Analysis, American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- Sheikholeslami, R., Razavi, S., (2018) An Automated Parameter Grouping Strategy for Efficient Sensitivity Analysis of Large-scale Hydrological Models, GWF Annual Science Meeting 2018, 3-6 June 2018, Hamilton, ON, Canada
- Sheikholeslami, R., Razavi, S., Gupta, H., Becker, W., Haghnegahdar, A., (2018) Addressing Curse of Dimensionality in Global Sensitivity Analysis of Large Environmental Models: An Automated Grouping Strategy, 9th International Congress on Environmental Modelling and Software, June 24-28 2018, Fort Collins, CO, USA.
- Shook K, Pomeroy J, (2018). The cold regions hydrological modelling paradox: why complex models can be run successfully with uncalibrated parameterisations. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018.
- Shook K, Pomeroy J. The cold regions hydrological modelling paradox: why complex models can be run successfully with uncalibrated parameterisations. European Geosciences Union (EGU) General Assembly, Vienna, Austria, April 8, 2018
- Shook, K., and Pomeroy, J. (2018) Challenges in modelling Prairie hydrology under future climates. In Modelling and Observations: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 5<sup>th</sup>, 2018. (*Oral Presentation*)
- Shook, K., and Pomeroy, J. (2018) The cold regions hydrological modelling paradox: why complex models can be run successfully with uncalibrated parameterisations. European Geosciences Union (EGU) General Assembly, Vienna, Austria. April 8, 2018.
- Skinner K, Laird B, Swanson H, Sutherland V, Cheechoo V, Ratelle M, Wallace J. *FISHNET (Fish and Indigenous NorthErn Health): Healthy Water, Healthy Fish, Healthy People*. Global Water Futures Operations Meeting, Saskatoon, SK, January 23, 2019.
- Slaughter, A., Haghnegahdar, A., Razavi, S., Carlson, H., Keshavarz, K., Ali Shah, S., (2018) Exploring water resources management models for achieving IWRM within Canada's

Major River Basins, 9th International Congress on Environmental Modelling and Software, June 24–28 2018, Fort Collins, CO, USA

Slaughter, A., Razavi, S., Keshavarz, K., Ali Shah, S. M., (2018), Water resources management modelling for achieving equitable sharing of water within the Saskatchewan River Basin, International Conference of the International Commission on Irrigation and Drainage, 12–17 August 2018, Saskatoon, Saskatchewan, Canada.

Slaughter, A.R., Razavi, S., Ali Shah, S.M., Keshavarz, K., Haghnegahdar, A., Carlson, H. (2018) 9th International Congress on Environmental Modelling and Software, June 24-28 2018, Fort Collins, USA.

Slaughter, A.R., Razavi, S., Princz, D. (2018) Integration of a water resources management model with large-scale land surface modelling for integrated management of Canadian large river basins. American Geophysical Union (AGU) Fall Meeting, December 10-14 2018, Washington D.C.

Sniderhan A, \*Day N, Cumming S, Johnstone J, Mack M, Turetsky M, Walker X, Baltzer J. (2018). Ecological Legacies and Their Effect on Boreal Wildfire Severity. ArcticNet Annual Scientific Meeting, Ottawa ON

Sniderhan A, Mamet S, Baltzer J. (2018). Forest Growth Dynamics in Northwestern North America. Global Water Futures Annual Scientific Meeting, Hamilton/Six Nations ON, June 2018.

Sonnentag O, \*Pappas C, \*Perron N, \*Standen KM, Rakowsk S, Baltzer JL, Detto M. (2018). Functional and Hydraulic Traits Plasticity of Boreal Tree Species Along a Latitudinal Climate and Permafrost Gradient in Northwestern North America. American Geophysical Union, Washington, DC, USA, poster

Sonnentag, O., \*Pappas, C., \*Standen, K., \*Perron, N. S., Rakowski, S., Baltzer, J. L., Detto, M. (2018); Functional and hydraulic traits plasticity of boreal tree species along a latitudinal climate and permafrost gradient in northwestern North America. [B13I-1587] 2018 Fall Meeting, AGU, Washington, D.C.

Spring A. Community-Based Health Research. (2018). Invited panelist. Hotii ts'eeda Etèts'ehdèe, Aurora Village, Yellowknife NT. May 22 – 24, 2018.

Spring, A and Simba, M. (2018). Climate change adaptation work in Kakisa, NT. NWT Association of Communities Climate Change conference and Charrette. Explorer Hotel, Yellowknife, NT, Oct 29-31, 2018.

Spring, A., \*Johnston, C., and Scott, C. (2018). Yellowknife as a gateway to food security in the Northwest Territories. Workshop on Regional Centres and the Sustainability of Canada's Rural and Northern Landscapes. Lakehead University, Thunder Bay, ON. May 8-9, 2018.

Stadnyk, TA. 2018. HYPE Modelling in the Nelson River Basin A Multi-Model Assessment. Integrated Modelling Program for Canada (IMPC). First Annual Meeting July 18-19, 2018. National Hydrology Research Centre, 11 Innovation Boulevard, Saskatoon, SK

Standen KM, Baltzer JL. (2018). Plant community composition and function across a boreal productivity gradient. Chemistry-Biology Interface Symposium, Waterloo, ON, Oral Presentation



- Standen KM, Baltzer JL. (2018). Plant function across a boreal productivity gradient. ArcticNet Scientific Meeting, Ottawa, ON, Poster Presentation
- Standen KM, Baltzer JL. (2018). Plant function across a boreal productivity gradient. Cold Regions Research Centre Day, Waterloo, ON, Oral Presentation
- Steeves, J. and Ferguson, G. 2018. Characterizing hydrogeological change from oil and gas development In the Western Canada Sedimentary Basin. GeoEdmonton2018, Edmonton, AB, October 2018.
- Straker, J., Baker, T., Carey, S., Petrone, R.M. 2018. Using ecosystem water and carbon fluxes as integrated measures of reclamation success. British Columbia Technical and Research Committee on Reclamation, Williams Lake, BC, September 17-20, 2018.
- Straker, J., Baker, T., Carey, S., Petrone, R.M. 2018. Using ecosystem water and carbon fluxes as integrated measures of reclamation success. Northern Latitudes Mining Reclamation Workshop, Whitehorse, YT, September 10-13, 2018.
- Stralberg, D, Arsenault, D, Baltzer, JL, Barber, Q, Bayne, EM, Boulanger, Y, Brown, C, Cooke, H, DeVito, K, Edwards, J, Estevo, C, Flynn, N, Frelich, LE, Hogg, E, Johnston, M, Logan, T, Matsuoka, S, Moore, P, Morelli, TL, Morissette, JL, Nelson, E, Nenzén, H, Nielsen, SE, Parisien, M-A, Pedlar, J, Price, D, Schmiegelow, F, Slattey, S, Sonnentag, O, Thompson, D, Whitman, E (2018) Climate-change refugia in boreal North America: what, where, and for how long? Ecological Society of America Annual Meeting, New Orleans, USA.
- Streich S, Westbrook C. The hydrological functions of a mountain valley-bottom wetland. Canadian Water Resources Association annual meeting, Victoria, BC, May 28 – June 1, 2018.
- Strickert, G., Bradford, L., and Shantz, S. (2018) Connecting with Communities: Adventures in Community Engaged Scholarship. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (Poster)
- Strickert, G., Bradford, L., and Shantz, S. (2018) Connecting with Communities: Adventures in Community Engaged Scholarship. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (Poster)
- Strickert, G.E.H., and Shantz, S., (2018) Blurring Boundaries: Sustain Practices in Art and Science. Engagement Scholarship Consortium. Transforming Higher Education Through Engaged Scholarship A-5 Elk Lake. Minneapolis Minnesota, October 2nd, 10:00am – 11:00am, 2018.
- Strickert. G.E.H., and L.E. Bradford and T. Jardine. (2018) H44B -07 Comparative Socio-hydrology: Regime Shifts, Systems Dynamics and Resilience: Connecting Human Dimensions and Hydrological Models. American Geophysical Union Fall Meeting, Washington DC, December 13th 17:30 – 17:45, 2018.
- Strickert. G.E.H., Bradford, L.E., and T. Jardine. (2018) H44B -07 Comparative Socio-hydrology: Regime Shifts, Systems Dynamics and Resilience: Connecting Human Dimensions and


- Hydrological Models. American Geophysical Union Fall Meeting, Washington DC, December 13<sup>th</sup>, 2018. 17:30 – 17:45, 2018.
- Sultana, Afroza. “Impacts of contaminated water in Six Nations of the Grand River” (oral presentation) McMaster Indigenous Graduate Student Research Symposium, McMaster University. 13 March 2019.
- Tang W, Carey SK. Detection of shifting flow regimes for watersheds in western North America using Deep Learning techniques. Presented at the American Geophysical Union Meeting, Washington, DC, December 2018.
- Tang W, Carey SK. Detection of shifting flow regimes for watersheds in western North America using Deep Learning techniques. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Telford J, BB Wolfe, RI Hall and J Hum. 2018. Using paleolimnology to establish baseline conditions for metal contaminants in advance of proposed mining, Marian Watershed, Northwest Territories, Canada. International Paleolimnology Symposium, Stockholm, Sweden.
- Telford J, BB Wolfe, RI Hall and M Birlea. 2018. The use of lake sediment cores to establish baseline metal concentrations in advance of proposed mining, Marian Watershed, Northwest Territories, Canada. Geoscience Forum, Yellowknife. Telford J, BB Wolfe, RI Hall and M Birlea. 2018. Stories from Tlicho Lands: development of a successful northern partnership from an Early Career Researcher’s perspective. ArcticNet Annual Scientific Meeting, Ottawa.
- Telford J, BB Wolfe, RI Hall and M Birlea. 2018. Using paleolimnology to meet the needs of a northern community monitoring initiative. Cold Regions Research Centre Day, Wilfrid Laurier University, Waterloo.
- Tetreault, G., K. Hicks, M. Fuzzen, K. McCann, L. Bragg, M. McMaster, M. Servos. Recovery of fish populations after infrastructure investments at municipal wastewater plants. International Association of Great Lakes Research, Toronto, June 18-22, 2018. abstract
- Thapa, A. (2019). A participatory approach to enhance and measure social learning for flood preparedness: An exploratory study in Mistawasis Néhiyawak. SENS Symposium, University of Saskatchewan, Saskatoon, SK March 28<sup>th</sup>, 2019 (*Presentation*)
- Thapa, A., & Strickert, G. (2019). Learning with Models: A case study for evaluating the role of scientific model in community flood management. World Water Day Event, University of Saskatchewan, Saskatoon, SK March 22<sup>th</sup>, 2019 (*Poster*)
- Thapa, A., Strickert, G., and Shook, K. (2018) Building knowledge and capacity through watershed modeling in indigenous community. In Human-Water Interactions: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (*Poster*)
- Tian, J., Lindo, Z., Petrone, R.M., McLaughlin, J., Branfireun, B.A. 2018. Greenhouse gas fluxes and carbon storage functions in two contrasting fen-peatland types: Implications for global warming. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.

- Tolson B. and Mai J. et al., (2018), Status report on the Great Lakes Runoff Inter-comparison Project for Lake Erie (GRIP-E), IMPC Annual General Meeting, Saskatoon, SK, July 18-19, 2018.
- Tropea, B. and R. Stewart, 2018: Freezing rain and wet snow affecting Manitoba. Prairie Division Canadian Assoc. Geographers, Hecla, Manitoba.
- Tsuji JM, Schiff SL, Thompson KT, Crowe SA, Liu K, Tran N, Venkiteswaran JJ, Elgood RJ, Molot LA and
- Turetsky, MR, Baltzer, J, Douglas, T, \*Gibson, C, Holloway, J, Kokelj, S, Lara, M, Lewkowicz, A, Olefeldt, D, Zwanenberg, N (2018) Interdisciplinary approaches to understanding the initiation and lateral expansion of thermokarst in peat-rich regions. European Union Conference on Permafrost 5, Chamonix, France
- Ueyama, M., Okamura, M., Ito, A. et al. incl. Sonnentag, O. (2018), Constraining methane dynamics modules in ecosystem models using eddy flux measurements at northern ecosystems. Abstract B41H-0299, 10-14 December 2018, Washington, D.C., USA.
- Using lake sediment cores as a tool to determine baseline toxicity data in an area where bio-monitoring did not occur historically. Advances in Earth Sciences Research Conference, University of Ottawa, Ottawa, Ontario. [received best student oral presentation award.]
- Van Beest, C., Waddington, J.M., Nwaishi F.C., Khomik, M., Petrone, R.M. 2018. Post Wildfire Burn Severity Effects on Peatland Carbon Exchange. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.
- Van Beest, C.E.S., Petrone, R.M., Nwaishi, F., Waddington, J.M. 2018. Nutrient Cycling in a Fen Peatland One-Year Post-Wildfire. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.
- Van Capellen, P. (2019). How geophysics informs biogeochemistry. World Wetland Day, University of Waterloo, Feb 4, 2019.
- Van Huizen B, Petrone RM. 2018. Conceptualizing the Role of Seasonal Ground Ice in a Western Boreal Plains Peatland. Presented at the Canadian Geophysical Union Annual General Meeting, June 2018, Niagara Falls, ON.
- Van Huizen B, Petrone RM. 2018. Spatial Patterns in Seasonal Ground Ice Melt in a Boreal Peatland. Presented at Cold Regions Research Centre Day, November 2018, Waterloo, ON.
- Van Huizen B, Petrone RM. 2018. The ground heat flux components of a Western Boreal Plains Peatland. Presented at the Canadian Geophysical Union Eastern Student Conference, March 2018, London, ON.
- Van Meter, K. J., Chowdhury, S., Byrnes, D., and Basu, N. B. (2018, December). Biogeochemical Asynchrony: Ecosystem Drivers of Seasonal Concentration Regimes across the Great Lakes Basin. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Van Meter, K. J., Van Cappellen, P., and Basu, N. B. (2018). Past, Present, and Future: Quantification of Long-Term Phosphorus Legacies in Canada's Grand River Watershed. Canadian Geophysical Union Joint Meeting, Niagara Falls, Canada, June 2018

- Van Meter, K.J., Chowdhury, S., Byrnes, D., and Basu, N.B. (2018). Biogeochemical Asynchrony Ecosystem Drivers of Concentration-Discharge Dynamics Across Temporal Scales, GWF Annual Science Meeting, McMaster University, June 3-6, 2018.
- Van Meter, K.J., Chowdry, S., Byrnes, D.K., and Basu, N.B. (2018). Biogeochemical Asynchrony: Ecosystem Drivers of Concentration-Discharge Dynamics Across Temporal Scales, Society for Freshwater Science 2018 Annual Meeting, Detroit, MI
- Van Meter, K.J., Chowdry, S., Byrnes, D.K., and Basu, N.B. (2018). Biogeochemical Asynchrony: Ecosystem Drivers of Seasonal Concentration Dynamics, Global Water Futures 2018 Annual Science Meeting, Hamilton, ON (oral presentation, Winner of Best Postdoctoral Presentation Award)
- Van Meter, K.J., Tenkouano, G., Parsons, C., Hall, R., and Basu, N. (2019). Reservoir Phosphorus Legacies: Reconstructing Long-Term Nutrient Dynamics Using Multi-proxy paleolimnological analyses. Association for the Sciences of Limnology and Oceanography Conference, San Juan, Puerto Rico, Feb 2019.
- Van Staden, T., Van Meter, K.J., Basu, N.B., and Van Cappellen, P. (2019) Targeting phosphorus legacies in the Laurentian Great Lakes Watersheds. World Water Day, University of Waterloo, March 22, 2019.
- Van Staden, T., Van Meter, K.J., Basu, N.B., and Van Cappellen, P. (2019) Phosphorus Legacies in Ontario Watersheds: Are Wetlands the Solution? World Wetland Day, University of Waterloo, Feb 4, 2019.
- Van Staden, T., Van Meter, K.J., Basu, N.B., and Van Cappellen, P. (2018) Targeting phosphorus legacies in the Laurentian Great Lakes Watersheds. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Van Staden, T., Van Meter, K.J., Van Cappellen, P., and Basu, N.B. (2018). "Targeting Phosphorus Legacies in the Great Lakes Watersheds," Global Water Futures 2018 Annual Science Meeting, Hamilton, ON.
- Venkiteswaran JJ. 2018. SAMMS: The Sub-Arctic Metal Mobility Study. Presentation at the Wilfrid Laurier University – Government of the Northwest Territories Science Committee Annual General Meeting, Wilfrid Laurier University, Waterloo (2 May 2018).
- Vionnet V, Gaborit E, Fortin V, Gasset N, Garnaoud C, Gauthier N, Pomeroy JW. High-resolution hydrological forecasting of the June 2013 flood in the Canadian Rockies. 8th Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018
- Vionnet V, Gaborit E, Fortin V, Gasset N, Garnaoud C, Gauthier N, Pomeroy JW, (2018). High-resolution hydrological forecasting of the June 2013 flood in the Canadian Rockies. 8<sup>th</sup> Global Energy and Water Exchanges (GEWEX) Open Science Conference: Extremes and Water on the Edge, Canmore, Canada, May 6, 2018.
- Vionnet V, Marsh C, Wayand N, Menounos B, Mukherjee K, Shea J, Gasset N, Pomeroy J. Multi-scale Snowdrift-resolving Modelling of Mountain Snowpack Evolution. Annual Meeting of the American Geophysical Union, Washington, DC, 10-14 December, 2018.



- Volik, O., Petrone, R.M., Quanz, M., Macrae, M.L., Rooney, R., Price, J.S. 2018. Environmental controls on CO<sub>2</sub> exchange along a salinity gradient in a saline boreal fen in the Athabasca Oil Sands Region. Annual General Meeting of the Canadian Geophysical Union, June 10 - 14, 2018, Niagara Falls, Ontario, Canada.
- Walker, XJ, Baltzer, JL, Cumming, SG, Day, N, Goetz, SJ, Johnstone, JF, Potter, S, Rogers, BM, Schuur, E, Turetsky, MR, Mack, MC. 2018. Vulnerability of boreal forest legacy carbon to combustion increases with shortened fire return intervals. AGU Annual Meeting. Washington, USA.
- Wallace, C.A. and Baltzer, J. (2018). Establishment and seed dispersal of a tall shrub at the boreal-arctic ecotone. Cold Regions Research Centre Annual Research Symposium. Waterloo, ON. November 28, 2018.
- Wallace, C.A. and Baltzer, J. (2018). Seed dispersal as an explanation of spatial variability in shrub expansion at the taiga-tundra ecotone of the Northwest Territories. ArcticNet Annual Scientific Meeting, Ottawa, ON.
- Wallace, C.A. and Baltzer, J. (2018). Tall shrubs mediate soil conditions and plant communities at the treeline-arctic tundra ecotone. Global Water Futures Annual Scientific Meeting.
- Wang, J., Sulla-Menashe, D.J., Woodcock, C.E., Sonnentag, O., Friedl, M.A. (2018), Shifting plant functional types in the rapidly warming high northern latitudes. Abstract U13B-19, Washington, D.C., USA.
- Watts, J., Natali, S.M., Minions, C. et al. incl. Sonnentag, O. (2018), Quantifying cold season soil CO<sub>2</sub> emissions in Alaska and northwest Canada. Abstract B31F-0477, 10-14 December 2018, Washington, D.C., USA.
- Werenka, A., Van Meter, K.J., Tolson, B., and Basu, N.B. (2018). Too Much Phosphorous: Is Investment in Biogas Plants a Viable Alternative for Water Quality Improvement? Canadian Geophysical Union Joint Meeting, Niagara Falls, Canada, June 2018.
- Westbrook CJ, Ronnquist A, Bedard-Haughn A. Dynamic beaver pond levels in mountain peatlands provide transient floodwater storage. International Beaver Symposium, Denmark, September 17 – 20, 2018.
- Westbrook CJ, Ronnquist A, Bedard-Haughn A. Dynamic beaver pond levels in mountain peatlands provide transient floodwater storage. Society of Wetland Science Annual Meeting, Denver, Colorado, USA, May 29 – June 1, 2018.
- White, AL, \*Day, NJ, Walker, XJ, Johnstone, JF, Cumming, SR, Mack, MC, Turetsky, MR., Baltzer, JL (2018) Environmental legacies drive post-fire vascular plant recovery in the sub-arctic boreal forest. CANQUA 2018. Ottawa, ON
- White, J. R., Basu, N. B., Roy, E. D., Bargu, S., & Midway, S. R. (2018). Impact of a Temporally-Displaced Mississippi River Spring Flood on Nutrient and Aquatic Ecosystem Responses in Estuarine Waters: A Hydrologic Harbinger of a Shifting Climatic Future Affecting Coastal Food Webs. American Geophysical Union, December 10-14, 2018, Washington D.C.
- Whitfield PH\*, Shook KR\*, Kraaijenbrink P, Pomeroy JW, (2018). Changing cold regions in western Canada: hydrology and hydrologic and landscape change east of the Cordillera. The 71st

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- Canadian Water Resources Association (CWRA) National Conference, Victoria, Canada, May 28, 2018
- Whitfield PH, Shook KR, Kraaijenbrink P, Pomeroy JW, (2018). Changing cold regions in western Canada: hydrology and hydrologic and landscape change east of the Cordillera. The 71st Canadian Water Resources Association (CWRA) National Conference, Victoria, Canada, May 28, 2018.
- Whitfield PH, Shook KR, Kraaijenbrink P, Pomeroy JW. 2018. Changing cold regions in western Canada: hydrology and hydrologic and landscape change east of the Cordillera. The 71st Canadian Water Resources Association (CWRA) National Conference, Victoria, Canada, May 28, 2018
- Whitfield PH, Shook KR, Kraaijenbrink P, Pomeroy JW. Changing cold regions in western Canada: hydrology and hydrologic and landscape change east of the Cordillera. The 71st Canadian Water Resources Association (CWRA) National Conference, Victoria, Canada, May 28, 2018
- Wicke, A. and Rudolph, D. L., 2018. Sahtu Hydrologic Observatory: Hydrogeologic Conceptual Model and Baseline Conditions, Global Water Futures, Annual Science Meeting. MacMaster University, Hamilton, Ont.
- Wicke, A. and Rudolph, D. L., 2018. Sahtu Hydrologic Observatory: Hydrogeologic Conceptual Model and Baseline Conditions. Global Water Futures Annual Science Meeting. MacMaster University, Hamilton, Ontario.
- Wicke, A., Rudolph, D. L. and Conant Jr. B. (2019). Characterization of Groundwater Flow Dynamics in Discontinuous Permafrost. 2nd Annual Open Science Meeting: Global Water Futures. Saskatoon, Saskatchewan, Canada, May 15-17, 2019.
- Wilkinson SL,, Waddington JM, Kettridge N, Moore, P. 2018. Peatland drying and a orestation enhances peat burn severity and exposes remnant peat carbon stocks to increased post-re drying. Presented at the American Geophysical Union Meeting, Washington, DC, December 2018.
- Williamson J, Petrone R. Assessing the role of tree growth patterns on the spatial variability of evapotranspiration on a subalpine hill slope in Kananaskis, Alberta. McMaster Water Week 2018, poster presentation. November 21, 2018
- Williamson J, Petrone R. Assessing the role of tree growth patterns on the spatial variability of evapotranspiration on a subalpine hill slope in Kananaskis, Alberta. CGU Eastern Student Section Meeting 2018, poster presentation. November 21, 2018
- Wolfe BB. 2018. Introduction to SAMMS (Sub-Arctic Metal Mobility Study). Presentation to Northern Water Futures Northern Student Training Series, Wilfrid Laurier University, Waterloo.
- Wolfe, J., Shook, K., Whitfield, C., and Spence, C. (2018) A Watershed Classification for the Canadian Prairies. In Modelling and Observations: Global Water Futures Inaugural Annual Science Meeting. McMaster University, Hamilton, ON. June 4-6, 2018. (*Poster*)
- Wolfe, J., Whitfield, C., and Spence, C. (2019) Prairie Water. Global Water Futures Operations Meeting. University of Saskatchewan, Saskatoon, SK. January 22-23, 2018. (*Poster*)

- Wolfe, J.D., Shook, K.R., Spence, C. and Whitfield, C.J. (2019) Watershed classification for the Canadian Prairies. Prairie Water 2<sup>nd</sup> Annual Partners Meeting. Holiday Express Inn & Suites, Saskatoon, SK. January 24-25, 2019. (Poster)
- Wong, J., Razavi, S., Gharari, S., Wheeler, H., (2018) Quantifying the uncertainty of water budget components over large river basins in Canada, Canadian Geophysical Union, 10-14 June 2018, Niagara Falls, ON, Canada.
- Wu, Y., de Lannoy, C. F., 2019. Hydrophobicity of peat soils under forest first conditions. Global Water Futures Second Annual Meeting, Saskatoon, SK
- Xu, B., & Arain, A. (2018, June 10-14). The sensitivity of forest carbon fluxes to heat and drought stresses: a synthesis of seasonal pattern across forests in North America. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Xu, B., & Arain, A. (2018, June 10-14). *The sensitivity of forest carbon fluxes to heat and drought stresses: a synthesis of seasonal pattern across forests in North America*. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Yamaguchi, A. (2018). Thesis project summary. WLU-GNWT Annual General Meeting. (presentation)
- Yamaguchi, A. (2019). GWF 2nd Annual Open Science Meeting. May 15–17, 2019, Saskatoon. (poster)
- Yanping Li, Sopan Kurkute, Zhe Zhang, Zhenhua Li, Lucia Scaff, (2018): Projected changes over western Canada using convection-permitting regional climate model. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Yanping Li, Sopan Kurkute, Zhe Zhang, Zhenhua Li, Lucia Scaff, 2018: Projected changes over western Canada using convection-permitting regional climate model. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Yassin, F., Elshamy, M., Razavi, S., Wheeler, H., (2018), Towards an Improved Parameterization of Reservoir Operation for Large-Scale Hydrological Modeling, American Geophysical Union (AGU) Fall Meeting, Washington DC. December 10-14, 2018.
- You G., Arain A., He Y., Xu B., Wu D. Lin N., & Zou C. (2018, June 10-14). *The Relationship between Climate Variability and Vegetation Dynamic in Upper Stream of Heilongjiang (Amur) River, northeast Asia*. Oral presentation at the meeting of the CGU-CSSS-CIG-CSAFM-ESSSA, Niagara Falls, ON, Canada.
- Zhang, F., Li, Zhaoqin, L. and Lindenschmidt, K.-E. (2018) Potential of RADARSAT-2 for improvement of an ice thickness model: a case study on the Slave River at Fort Smith, Alberta. 39th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, Canada, 19-21 June, 2018
- Zhao, Pei, Ning Qin, Carolyn Ren and John Wen, 2018. Surface Modification of Polymer Filters by Etching and a PDA Coating for Oil-Water Separation. MRS Fall Meeting & Exhibit, November 25-30, Boston, MA, USA.

- Zhe Zhang, Yanping Li, Fei Chen, Michael Barlage, (2018) Climate- Groundwater Interaction on Modeling Wetlands in Prairie Pothole Region. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Zhe Zhang, Yanping Li, Fei Chen, Michael Barlage, 2018: Climate- Groundwater Interaction on Modeling Wetlands in Prairie Pothole Region. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
- Zhenhua Li, Yanping Li, Barrie Bonsal, Alan Manson, (2018): MJO and Summer Precipitation/Drought in the Canadian Prairies. 8th GEWEX Science Conference, 6-11 May 2018 in Canmore, Alberta, Canada
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- Zolfaghari, K., S. Bird, G. Wilkes, D. Ellis, K. Pintar, N. Gottschall, E. Topp, C.R. Duguay, H. McNairn, and D.R. Lapen, 2018. Using WorldView imagery to study chlorophyll-a concentration in South Nation River, Eastern Ontario, Canada. *Ocean Optics Conference XXIV*, Dubrovnik, Croatia, 7-12 October.
- Zolfaghari, K., S. Bird, G. Wilkes, D. Ellis, K.D.M. Pintar, N. Gottschall, E. Topp, C.R. Duguay, H. McNairn, and D.R. Lapen, 2018. Comparison of lab- and field-based water quality measurements for agricultural surface waters. IAGLR 2018 - 61st Annual Conference on Great Lakes Research, Toronto, Canada, 18-22 June.

## Others

- By application: “Strategic thinking for making new space for Indigenous Water Governance” panel, World Indigenous Law Conference, University of Windsor, Ontario. 20 November 2018. The following presentations took place during this panel (by application)
- Case Presentation to a 200 Level Undergraduate Psychology Class in August 2018, Social psychological phenomena and interconnections of the socio-ecological system related to flooding in Indigenous Communities.
- Dawn Martin-Hill (Mohawk, Wolf Clan), “Indigenous governance & responses to climate change and water security.” Nidhi Nagabhatla, “Synopsis of direct and indirect drivers and role of Indigenous and local knowledge (ILK) systems.” Nancy Doubleday, “Bio-Centric Legal Spaces and Human Understanding” Jorge Fabra-Zamora, “The missing element in the ‘communicating framework.’”
- Kurt Gibson “Youth” panel, First Nations Water Security & Climate Change Symposium, Six Nations Territory
- Nidhi Nagabhatla, Nancy Doubleday “Governance & Law” panel, First Nations Water Security & Climate Change Symposium, Six Nations Territory. 3 June 2018.
- Patricia Chow-Fraser, Dawn Martin-Hill, Constantine Samaan “Co-Creation of Indigenous Water Quality Tools” panel, First Nations Water Security & Climate Change Symposium, Six Nations Territory. 3 June 2018.

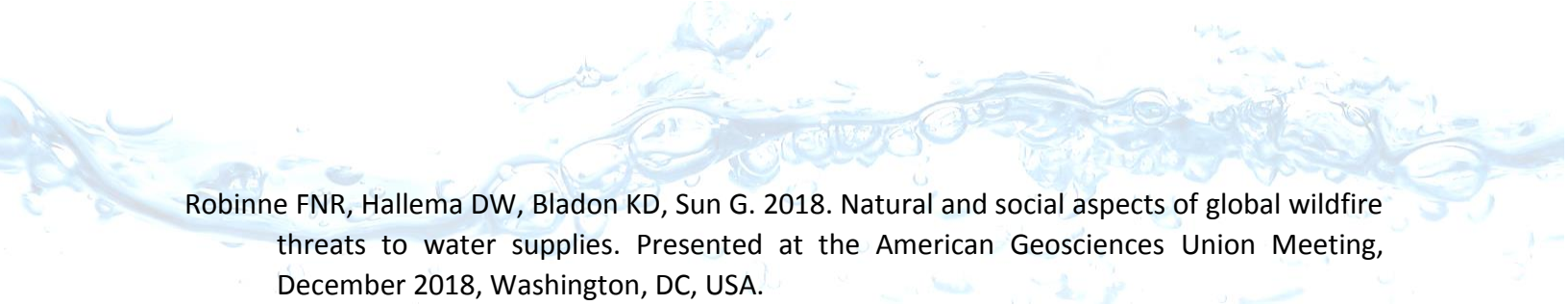


### Published Datasets

- Sonnentag, O., Quinton, W.L. (2018), Ameriflux CA-SCC Scotty Creek Landscape. doi:10.3334/ORNLDAAAC/1511.
- Sonnentag, O., Quinton, W.L. (2019), Ameriflux CA-SCB Scotty Creek Bog. doi:10.17190/AMF/1498754.
- Walker, X.J., B.M. Rogers, J.L. Baltzer, S.R. Cummings, \*N.J. Day, S.J. Goetz, J.F. Johnstone, M.R. Turetsky, and M.C. Mack. 2018. ABoVE: Wildfire Carbon Emissions and Burned Plot Characteristics, NWT, CA, 2014-2016. ORNL DAAC, Oak Ridge, Tennessee, USA. <https://doi.org/10.3334/ORNLDAAAC/1561>
- Walker, X.J., J.L. Baltzer, S.G. Cumming, \*N.J. Day, S.J. Goetz, J.F. Johnstone, S. Potter, B.M. Rogers, E.A.G. Schuur, M.R. Turetsky, and M.C. Mack. 2019. ABoVE: Characterization of Carbon Dynamics in Burned Forest Plots, NWT, Canada, 2014. ORNL DAAC, Oak Ridge, Tennessee, USA. <https://doi.org/10.3334/ORNLDAAAC/1664>

### Conference Posters

- Balliston, N & Price, J. S. Characterizing Patterned Peatlands in the James Bay Lowlands and the Potential Feedbacks to Anthropocentric Stressors. Poster Presented at World Wetlands Day, March 2018, Waterloo, ON
- Elmes, MC., Thompson, DK., & Price, JS. 2018. Changes to the hydrophysical properties of upland soils in the Athabasca Oil Sands Region following wildfire. Canadian Geophysical Union 2018 Meeting, Niagara Falls, ON
- Popović, N., Green, A., Kessel, E., Kohmik, M., Petrone., R.M. 2018. What the Flux? Carbon and Water Dynamics During the Early Development of a Reclaimed, Post-. Oilsands Landscape in Northern Alberta, Canada. Poster Presenter at the American Geophysical Union Annual Meeting, D.C., Dec. 2018. (Outstanding Student Presentation Award – Biogeoscience Section, American Geophysical Union Annual Meeting 2018. The Outstanding Student Presentation Awards (OSPAs) promote, recognize and reward students for quality research in the Earth and space sciences. Awarded to the top 3-5% of presenters in each Section. )
- Popović, N., Green, A., Kessel, E., Kohmik, M., Petrone., R.M. What the Flux? Carbon and Water Dynamics During the Early Development of a Reclaimed, Post-. Oilsands Landscape in Northern Alberta, Canada. Poster Presenter at World Wetlands Day Research Symposium, University of Waterloo, Feb. 2019.
- Popović, N., Petrone, R.M., Price, J.S., Strack, M. 2018. Effect of Seasonal Variations in Water Availability on the Ecohydrological Function of a Constructed Peatland. Poster Presentation at McMaster Water Week Research Showcase, Hamilton, Nov. 2018.
- Popović, N., Petrone, R.M., Price, J.S., Strack, M. 2018. The Role of Vascular Vegetation on Carbon and Water Dynamics in a Constructed Peatland. Poster Presentation at the Canadian Geophysical Union (CGU) annual conference, Niagara Falls, June, 2018

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- Robinne FNR, Hallema DW, Bladon KD, Sun G. 2018. Natural and social aspects of global wildfire threats to water supplies. Presented at the American Geosciences Union Meeting, December 2018, Washington, DC, USA.
- Robinne FNR, Hallema DW, Sun G, Bladon KD. 2018. Global water security, wildfire risk, and society. Terrestrial Ecosystems and Agricultural and Forest Meteorology Symposium, Nanjing University of Information Science and Technology, Nanjing, Jiangsu Province, People's Republic of China, October 26-28, 2018.
- Van Huizen B, Petrone RM. 2018. Comparing methods of determining seasonal ground ice position in a boreal peatland. Poster Presented at the Global Water Futures Annual Meeting, May 2018, Hamilton, ON.
- Van Huizen B, Petrone RM. 2018. Melting Seasonal Ground Ice water inputs and spatial controls on melt in a Western Boreal Plains Peatland. Poster Presented at McMaster Water Week Research Showcase, November 2018, Hamilton, ON.
- Van Huizen B, Petrone RM. 2018. Modelling Seasonal Ground Ice and Evapotranspiration in a Western Boreal Plains Peatland using the Cold Regions Hydrological Model (CRHM). Poster Presentation at the Canadian Geophysical Union Annual Meeting, June 2018, Niagara Falls, ON.