

PhD - University of Ottawa, Department of Geography, Environment and Geomatics (2019-2022)

Dissertation title: *The unquantified mass loss and changes of Northern Hemisphere marine-terminating glaciers*

MS - University of Maine, Earth and Climate Sciences & Climate Change Institute (2016-2019)

Thesis title: *Why Do Glaciers Surge?*

BS - Dickinson College, Pennsylvania, Department of Earth Sciences (2012-2016)

Thesis title: *Short-term Climate Cycles, Recent Climate Changes, and Volcano-Ice Hazards: Nevado Coropuna, Arequipa, Peru*

Teaching and research positions

Assistant Professor (2023-present) – University of New England, School of Marine and Environmental Programs

Visiting Assistant Teaching Professor (2022-2023) – University of New England, School of Marine and Environmental Programs

Part-time Professor (winter 2021) – University of Ottawa, Department of Geography, Environment and Geomatics

Adjunct Professor (summer 2021) - Dickinson College, Department of Environmental Studies

GIS specialist (2019-2021)– Parks Canada, Yukon intern

Research fellowship/scholarship –NSF Graduate Research Fellowship at UMaine (MS; 2016-2019) and Vanier Graduate Scholarship at uOttawa (PhD; 2019-2022)

Peer Reviewed Publications

Gray, L., Burgess, D., Copland, L., Dow, C., Fettweis, X., Fisher, D., **Kochtitzky, W.**, van Wychen, W., Zheng, J. Repeated subglacial jökulhlaups in NE Greenland revealed by CryoSat. *Journal of Glaciology*. [In Review]

Garibaldi, M., Bonnaventure, P., Noah, N., **Kochtitzky, W.** Exploring the impact of surface lapse rate change scenarios on mountain permafrost distribution in four dissimilar valleys in Yukon, Canada. *Arctic Science*. [In Review]

Garibaldi, M., Bonnaventure, P., Noah, N., **Kochtitzky, W.** Modelling air, ground surface and permafrost temperature variability across four dissimilar valleys, Yukon, Canada. *Arctic Science*. [In Review]

Vegter, S., Bonnaventure, P., Daly, S., and **Kochtitzky, W.** Modelling Permafrost Distribution using the Temperature at Top of Permafrost Model in the Boreal Forest Environment of Whati, NT. *Arctic Science* [In Review]

Main, B., Copland, L., Flowers, G., Dow, C., Van Wychen, W., Samsonov, S., **Kochtitzky, W.** Topographic and hydrological controls on partial and full surges of Little Kluane Glacier, Yukon. *Journal of Glaciology*. [In Review]

[25] Zheng, W., Bhushan, S., Van Wyk De Vries, M., **Kochtitzky, W.**, Shean, D., Dow, C., Jones-Ivey, R., Pérez, F. A. 2023. GLAcier Feature Tracking testkit (GLAFT): a statistically and physically based framework for evaluating glacier velocity products derived from satellite image feature tracking. *The Cryosphere*, 17, 4063–4078. <https://doi.org/10.5194/tc-17-4063-2023>

- [24] **Kochtitzky, W.**, Copland, L., King, M., Hugonnet, H., Jiskoot, H., Morlighem, M., Millan, R., Khan, S., Noël, B. 2023. Closing Greenland's mass balance: frontal ablation for every Greenlandic glacier from 2000 to 2020. *Geophysical Research Letters*, 50(17), p.e2023GL104095. <https://doi.org/10.1029/2023GL104095>
- [23] Lauzon, B., Copland, L., Van Wychen, W., **Kochtitzky, W.**, and McNabb, R. 2023. Evolution in surface morphology and velocity of Airdrop Glacier, western Axel Heiberg Island, over a seven decade long advance. *Arctic Science*. <https://doi.org/10.1139/AS-2022-0045>
- [22] **Kochtitzky, W.**, Copland, L., Van Wychen, W., Hock, R., Rounce, D., Jiskoot, H., Scambos, T., Morlighem, M., King, M., Cha, L., Gould, L., Merril, P., Glazovsky, A., Hugonnet, R., Strozzi, T., Noël, B., Navarro, F., Millan, R., Dowdoeswell, J., Cook, A., Dalton, A., Khan, S., Jania, J. 2023. Progress towards globally complete frontal ablation estimates of marine-terminating glaciers. *Annals of Glaciology*. doi:10.1017/aog.2023.35
- [21] Painter, M., Copland, L., Dow, C., **Kochtitzky, W.**, Medrzycka, D. 2023. Patterns and mechanisms of repeat drainages of glacier-dammed Dañ Zhùr (Donjek) Lake, Yukon. *Arctic Science*. <https://doi.org/10.1139/as-2023-0001>
- [20] Malles, J., Maussion, F., Ultee, L., **Kochtitzky, W.**, Copland, L., Marzeion, B. 2023. Exploring the impact of a frontal ablation parameterization on projected 21st-century mass change for Northern Hemisphere glaciers. *Journal of Glaciology*. doi:10.1017/jog.2023.19
- [19] Lauzon, B., Copland, L., Van Wychen, W., **Kochtitzky, W.**, McNabb, R. and Dahl-Jensen, D. 2023. Dynamics throughout a complete surge of Iceberg Glacier on western Axel Heiberg Island, Canadian High Arctic. *Journal of Glaciology*. doi:10.1017/jog.2023.20
- [18] Rounce, R., Hock, R., Maussion, F., Hugonnet, R., **Kochtitzky, W.**, Huss, M., Berthier, E., Brinkerhoff, D., Compagno, L., Copland, L., Farinotti, D., Menounos, B., McNabb, R. 2023. Global glacier change in the 21st century: Every tenth of a degree temperature increase matters. *Science*. doi:10.1126/science.abo1324
- [17] Culley, A., Thaler, M., **Kochtitzky, W.**, Iqaluk, P., Rapp, J., Rautio, M., Kumagai, M., Copland, L., Vincent, W., Girard, C. 2022. The Thores Lake proglacial system: remnant stability in the rapidly changing Canadian High Arctic. *Arctic Science*. doi.org/10.1139/as-2022-0023
- [16] Main, B., Copland, L., Smeda, B., **Kochtitzky, W.**, Samsonov, S., Dudley, J., Skidmore, M., Dow, C., Van Wychen, W., Medrzycka, D., Higgs, E., Mingo, L. 2022. Terminus change of Kaskawulsh Glacier, Yukon, under a warming climate: retreat, thinning, slowdown, and modified proglacial lake geometry. *Journal of Glaciology*. doi:10.1017/jog.2022.114
- [15] Bash, E., Shellian, C., Dow, C., McDermid, G., **Kochtitzky, W.**, Medrzycka, D., Copland, L. A 2022. Standard Framework for Semi-Automated Mapping of Supraglacial Hydrology. *Journal of Glaciology*. doi:10.1017/jog.2022.92
- [14] **Kochtitzky, W.**, Copland, L., Wohlleben, T., Iqaluk, P., Girard, C., Vincent, W., Culley, A. 2022. Slow change since the Little Ice Age at a far northern glacier with the potential for system reorganization: Thores Glacier, northern Ellesmere Island, Canada. *Arctic Science*. <https://doi.org/10.1139/as-2022-0012>
- [13] **Kochtitzky, W.**, Copland, L., Van Wychen, W., Hugonnet, R., Hock, R., Dowdoeswell, J., Benham, T., Strozzi, T., Glazovsky, A., Labrentiev, I., Rounce, D., Millan, R., Cook, A., Dalton, A., Jiskoot, H., Cooley, J., Jania, J., Navarro, F. 2022. The unquantified mass loss of Northern Hemisphere marine-terminating glaciers from 2000-2020. *Nature Communications*. <https://doi.org/10.1038/s41467-022-33231-x>

- [12] Daly, S., Bonnaventure, P., **Kochtitzky, W.** 2022. Influence of ecosystem and disturbance on near-surface permafrost distribution, Whatì, Northwest Territories, Canada. 2022. *Journal of Permafrost and Periglacial Processes*. <https://doi.org/10.1002/ppp.2160>
- [11] **Kochtitzky, W.**, Copland, L. 2022. Retreat of Northern Hemisphere marine-terminating glaciers, 2000-2020. *Geophysical Research Letters*, 48(3). doi.org/10.1029/2021GL096501
- [10] Nolan, A., **Kochtitzky, W.**, Enderlin, E., Kreutz, K., McNabb, R. 2021. Kinematics of the exceptionally-short surge cycles of Sít' Kusá (Turner Glacier), St. Elias Mountains, Alaska, from 1983 to 2013. *Journal of Glaciology*, 67(264), 744-758. doi:10.1017/jog.2021.29
- [9] Curley, A., **Kochtitzky, W.**, Edwards, B., & Copland, L. 2021. Glacier changes over the past 144 years at Alexandra Fiord, Ellesmere Island, Canada. *Journal of Glaciology*, 67(263), 511-522. doi:10.1017/jog.2021.4
- [8] Van Wychen, W., Burgess, B., **Kochtitzky, W.**, Nikolic, N., Copland, L., Gray, L. 2021. Radarsat-2 Derived Glacier Velocities and Discharge Estimates for the Canadian High Arctic: 2015-2020. *Canadian Journal of Remote Sensing*, 46(6), 695-714. doi:10.1080/07038992.2020.1859359
- [7] Edwards, B., **Kochtitzky, W.**, and Battersby, S. Global Mapping of Future Glaciovulcanism (Invited). 2020. *Journal of Global Planetary Change*, 195(103356). doi.org/10.1016/j.gloplacha.2020.103356
- [6] **Kochtitzky, W.**, Copland, L., Painter, M., Dow, C. 2020. Draining and filling of ice dammed lakes at the terminus of surge-type Dañ Zhùr (Donjek Glacier), Yukon, Canada. *Canadian Journal of Earth Sciences*, 57(11), pp. 1337-1348.
- [5] **Kochtitzky, W.**, and Edwards, B. 2020. Comments on 'Area changes of glaciers on active volcanoes in Latin America between 1986 and 2015 observed from multi-temporal satellite imagery' by Reinthaler and others (2019). *Journal of Glaciology*, 66(257), 520-522.
- [4] **Kochtitzky, W.**, Winski, D., McConnel, E., Kreutz, K., Campbell, S., Enderlin, E., Copland, L., Williamson, S., Dow, C., Main, B., Jiskoot, H. 2020. Climate and Surging of Donjek Glacier, Yukon, Canada. *Arctic, Antarctic, and Alpine Research*, 52(1), pp. 264-280.
- [3] **Kochtitzky, W.**, Jiskoot, H., Copland, L., Enderlin, E., McNabb, R., Kreutz, K., Main, B. 2019. Variations in terminus advance, kinematics, and mass redistribution during eight surges of Donjek Glacier, St. Elias Range, Canada, 1935 to 2016. *Journal of Glaciology*, 65(252) pp 565-579.
- [2] **Kochtitzky, W.**, Edwards, B., Enderlin, E., Marino, J., Marinque, N. 2018. Improved Estimates of Glacier Change Rates at the Nevado Coropuna Ice Cap, Peru. *Journal of Glaciology*, 64(244) pp 175-184.
- [1] Enderlin, E., Carrigan, C., **Kochtitzky, W.**, Cuadros, A., Moon, T., Hamilton, G. 2018. Greenland Iceberg Melt Variability from High-Resolution Satellite Observations. *The Cryosphere*, 12(2), pp. 565-575.

Field Research and Expeditions

- 2023 Research/workshop cruise to Hornsund on Horyzont II, Spitzbergen, Svalbard
- 2023 Kluane National Park – GPS servicing, ice drilling, and thickness measurements
- 2023 Drone mapping on marshes in southern Maine
- 2022 GNSS and drone mapping of Chestnuts in Cape Elizabeth, Maine
- 2022 GNSS mapping for archaeological field work, Cobscook Bay, Maine
- 2020 Field safety course in Banff, Alberta, Canada including crevasse rescue training

- 2019 United Nations Framework Convention on Climate Change 25th Conference of the Parties (international climate change negotiations), Madrid, Spain
- 2019 Glacier monitoring on Thores Glacier, Northern Ellesmere Island, Nunavut, Canada
- 2019 Hot water drilling and glacier monitoring, Kluane National Park, Yukon, Canada
- 2018 UN Framework Convention on Climate Change 24th Conference of the Parties, Katowice, Poland
- 2018 Manaslu Trek with International Centre for Integrated Mountain Development, Nepal
- 2018 GPS, photogrammetry, and GPR measurements at Donjek and Lowell Glaciers, Yukon Territory
- 2018 Photogrammetry at Turner Glacier in Yakutat, Alaska
- 2017 UN Framework Convention on Climate Change 23rd Conference of the Parties, Bonn, Germany
- 2017 Understanding glacier dynamics and geologic mapping at Hoodoo Ice cap and surrounding glaciers, British Columbia, Canada
- 2017 GPR, GPS, and ice cores at Eclipse Icefield, St. Elias Range, Yukon, Canada
- 2017 University Center in Svalbard, Norway, visiting student in Remote Sensing of the Cryosphere and Glaciology
- 2016 Geologic and GPS mapping of subglacial lavas in Iceland at Vatnsskarð and Undirhliðar quarries
- 2015 Geologic and GPS mapping, lake sediment core, organized and executed expedition to understand volcanic geology and glacial evolution Coropuna, Peru [Co-leader]
- 2014 Geologic and GPS mapping, field investigations of sub-glacial lava formation at Edziza and Kima'Kho volcanoes, Northern British Columbia, Canada
- 2014 Regional Geology and Glaciers, exploratory trip, Amasalik, Greenland and Reykjavik, Iceland
- 2014 Interviews and field research on the 2013-2015 Review of the 2°C global warming limit at the 20th Conference of the Parties (COP20) to the UNFCCC, Lima, Peru
- 2013 Geologic and GPS mapping, spit progradation and sediment transport at Cape Henlopen, Delaware
- 2013 Interviews, GIS mapping, and Archaeological fieldwork, examining climate change in archaeological record and human adaptation, Taraco Archaeology Project, Lake Titicaca, Bolivia

Select Awards and Honors (awarded USD\$1,182,893 in scholarships & research grants)

- 2023 Goosefare Marsh Restoration. Maine Natural Resource Conservation Program. PI: Dr. Susan Adamowicz, Co-Is: Dr. Pam Morgan, Dr. Will Kochtitzky (\$654,468 with \$55,185 to UNE)
- 2023 Forecasting species distribution shifts in a warming Gulf of Maine: implications for fisheries and offshore wind development. Maine Philanthropy Fund. PI: Dr. John Mohan, Co-PI Dr. Will Kochtitzky. (\$153,106)
- 2023 Creating a Southern Maine coastal observing network. Maine Space Grant Consortium Research Infrastructure Development Collaborative Seed Grant. PI: Dr. Will Kochtitzky, Co-PIs: Dr. Anthony Campbell (NASA), Dr. Susan Adamowicz (FWS), Dr. Hannah Baranes (GMRI), Dr. Cameron Wake (UNE). (\$50,000 plus \$16,700 UNE match)
- 2023 Integrating space-based and airborne lidar into UNE GIS courses. Maine Space Grant Consortium course revision grant. (\$5,000 plus \$6,111 UNE match)
- 2023 International Arctic Science Committee early career travel support to attend the Network on Arctic Glaciology meeting in Obergurgl, Austria (€600)

2022 Biddeford Pool Salt Marsh Enhancement Project 2022. Maine Natural Resource Conservation Program. PI: Dr. Susan Adamowicz, Co-Is: Dr. Pam Morgan, Dr. Will Kochtitzky (\$219,565 with \$41,361 to UNE)

2022 Training GIS students in geospatial science to understand climate change impacts in Maine. Maine Space Grant Consortium course revision grant. (\$5,000 plus \$5,000 UNE match)

2022 Paterson Award for Canadian Glaciology (CAD\$2500)

2021 Phi Kappa Phi Love of Learning Award (\$500)

2020 International Arctic Science Committee Early Career Scientist Travel Award (€700)

2019 Phi Kappa Phi Love of Learning Award (\$500)

2019-2023 University of Ottawa Excellence Scholarship (CAD\$6,366.57)

2019-2023 University of Ottawa International Doctoral Scholarship (CAD\$13,290.12)

2019-2022 Vanier Canada Graduate Scholarship (CAD\$150,000)

2019 Wilson Center SCOPE Grant for climate outreach (\$750)

2019 Phi Kappa Phi Honor Society

2019 Travel Grant to Attend ICESat-2 Workshop at University of Washington (\$1,800)

2019 Travel Grant to Attend Software Carpentry Workshop at University of Washington (\$800)

2019 NASA Maine Space Grant Consortium Directors Fund Research Grant (\$500)

2019 University of Maine Graduate Student Government research grant (\$850)

2018 Schwartz Family Legacy Foundation outreach and research grant (\$3,309)

2018 GSSI Student Research Grant (\$2,000)

2018 Dean of the Graduate School Undergraduate Mentoring Award (\$100)

2018 Explorers Club Research Grant A. Nolan (PI) and W. Kochtitzky (Co-PI) (\$2,500)

2018 University of Maine Graduate Student Government research grant (2 grants at \$850 each)

2018 Geological Society of America John T. Dillon Alaska Research Award (\$1,650)

2017 National Science Foundation Super Computing Time (XCEDE) W. Kochtitzky (PI) and A. Nolan (Co-PI) (\$1,302.75)

2017 University of Maine Graduate Student Government research grant (\$850)

2017 GeoHackWeek Travel Grant from University of Washington (\$1,062.70)

2017 - 2018 RemoteEx Science Activities Travel Grant—four-time recipient (\$4,523.82)

2017 International Arctic Science Committee Young Scientists Travel Grant (\$240)

2017 Maine Space Grant Consortium Director's Fund grant (\$400)

2016 University of Maine Graduate Student Government Travel to Present grant (\$425)

2016-2019 National Science Foundation Graduate Research Fellowship (\$138,000)

2016 Dickinson Research and Development: Volcano-Ice Interactions in Iceland. B. Edwards (PI), W. Kochtitzky (Co-PI) (\$7,490.15)

2015 Dickinson Research and Development: Sediments as a climate record in a hydrologically closed basin, Coropuna, Peru. B. Edwards (PI), W. Kochtitzky (Co-PI) (\$8,067.20)

Select Leadership, Service and Community Engagement

- 2023- Team member - International Conference on Arctic Research Planning IV Research Priority Team 1: The Role of the Arctic in the Global System
- 2023- Steering Committee member and glacier group co-lead of International Association of Cryospheric Sciences working group on the main ice sheet and peripheral ice basins and boundaries of Greenland and Antarctica
- 2023- United States of America National Contact for the International Arctic Science Committee Network on Arctic Glaciology
- 2020-2023 International Association of Cryospheric Sciences Working Group Contributor: Randolph Glacier Inventory (RGI) and its role in future glacier monitoring and GLIMS
- 2022- National Correspondent for the Randolph Glacier Inventory
- 2018- Reviewer: Journals of Glaciology, Geomorphology, Hydrogeology, Remote Sensing, Remote Sensing of Environment, Nature Climate Change, Nature Communications
- 2020 Expert Reviewer for the IPCC 6th Assessment Report of Working Group 1
- 2018-2019 Facilitator for educational climate negotiation workshop with ~1100 Maine students
- 2018 Expert Reviewer for IPCC Special Report on the Ocean and Cryosphere in a Changing Climate
- 2017 Expert Reviewer for IPCC Special Report on Global Warming of 1.5°C

Presentations

- Medrzycka, D., Copland, W., Morlighem, M., **Kochtitzky, W.** Towards the first comprehensive measure of glacier ice thickness in Arctic Canada. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2025.
- Copland, L., Alley, K., Dalton, A., Dow, C., Garbo, A., Gervais, P., Hamilton, A., **Kochtitzky, W.**, Lauzon, B., Medrzycka, D., Myers, P., Mueller, D., Thomson, L., Van Wychen, W. Recent Glacier-Ocean-Iceberg Changes across the Canadian Arctic. ArcticNet 2023. Iqaluit, Nunavut, Canada. December, 2023.
- Zheng, W., Bhushan, S., Van Wyk De Vries, M., **Kochtitzky, W.**, Shean, D., Dow, C., Jones-Ivey, R., Pérez, F. GLAcier Feature Tracking testkit (GLAFT): a statistically and physically based framework built on top of open science workflows for evaluating glacier velocity maps. American Geophysical Union Fall meeting. San Francisco, California, USA. December, 2023.
- Zheng, W., Bhushan, S., Van Wyk De Vries, M., **Kochtitzky, W.**, Shean, D., Dow, C., Jones-Ivey, R., Pérez, F. Evaluating glacier velocity maps derived from satellite image feature tracking using GLAcier Feature Tracking testkit (GLAFT). 2023 Asian Conference on Remote Sensing. Taipei. November, 2023.
- DeWater, K., **Kochtitzky, W.** Oakley, T. The Growth of Mega Pool Systems in 12 Maine Salt Marshes From 2009 to 2021. Maine GIS Users Group annual conference. November, 2023.
- Kochtitzky, W.** GIS at UNE – from Maine to the poles. Maine GIS Users Group annual conference. November, 2023.
- Copland, L., Dalton, A., Garbo, A., Brummell, E., **Kochtitzky, W.**, Lauzon, B. and Gervais, P. 2023. Iceberg tracking and iceberg-ship interactions in Baffin Bay. Sciberg (The Science of Icebergs) workshop, University of Manitoba, online. November, 2023.
- DeWater, K., Kochtitzky, W. Oakley, T. The Growth of Mega Pool Systems in 12 Maine Salt Marshes From 2009 to 2021. 42°N The North Atlantic Network meeting. November, 2023.

- Copland, L., Lauzon, B. Medrzycka, D., Van Wyche, W., **Kochtitzky, W.**, McNabb, R. and Dahl-Jensen, D. 2023. Glacier surges and advances on western Axel Heiberg Island since the 1950s. Müller Ice Cap ice core meeting, Canadian Ice Core Laboratory. Edmonton, Canada. October 2, 2023.
- Dow, C., Painter, M., Medrzycka, D., **Kochtitzky, W.**, Copland, L. Life cycle of glacier dammed Dañ Zhùr (Donjek) Lake. Kluane Lake Research Station Open House. Yukon, Canada. September 22, 2023.
- DeWater, K., **Kochtitzky, W.** Oakley, T. The Growth of Mega Pool Systems in 12 Maine Salt Marshes From 2009 to 2021. UNE SURE research symposium. September, 2023.
- Kochtitzky, W.** Rapid change at the ice-ocean interface: mass loss and retreat of marine-terminating glaciers. Longyearbyen, Svalbard. September, 2023. [invited]
- Perlut, N. and **Kochtitzky, W.** Satellite tracking reveals remarkable details of the migration of a 32 g songbird, the Bobolink. American Ornithological Society Annual Meeting. London, Ontario, Canada. August, 2023.
- Bonnaventure, P., Daly, S., Vegter, S., and **Kochtitzky, W.** An examination of near-surface permafrost modelling techniques for boreal wetland environments, Whatì, NT, Canada. 6th European Conference on Permafrost. Puigcerdà, Catalonia, Spain. June, 2023.
- Jania, J., Blaszczyk, M., Ciepły, M. and **Kochtitzky, W.** Nowe oceny ablacji czołowej (cielenia) lodowców w Arktyce [New assessment of frontal ablation (calving) in the Arctic]. 39th Polish Polar Symposium, Polish Academy of Sciences. Sopot, Poland. May, 2023 [Invited]
- Malles, J.-H., Maussion, F., Ultee, L., **Kochtitzky, W.**, Copland, L. and Marzeion, B. Simulating northern hemisphere glacier-ocean interactions using the Open Global Glacier Model and the Nucleus for European Modelling of the Ocean. European Geophysical Union General Assembly 2023, Vienna, Austria. April, 2023.
- Kochtitzky, W.** Canadian Arctic: Ward Hunt Island and Thores Glacier. Northeast Glaciology Meeting. Orono, Maine. April, 2023.
- Kochtitzky, W.**, Copland, L., Van Wyche, W., Hugonnet, R., Hock, R., Dowdoeswell, J., Benham, T., Strozzi, T., Glazovsky, A., Labrentiev, I., Rounce, D., Millan, R., Cook, A., Dalton, A., Jiskoot, H., Cooley, J., Jania, J., and Navarro, F. Frontal Ablation of Northern Hemisphere glaciers 2000-2020. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2023.
- Copland, L., **Kochtitzky, W.** Terminus area changes of all Northern Hemisphere marine-terminating glaciers since 2000. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2023.
- Main, B., Copland, L., **Kochtitzky, W.**, Samsonov, S., Flowers, G., Dow, C. Little Kluane Glacier, Yukon: a tributary-trunk surge. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2023.
- Partington, G., Copland, L., Medrzycka, D., **Kochtitzky, W.**, Lauzon, B. Reconstructing the past two surges of Fisher Glacier, Yukon. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2023.
- Lauzon, B., Copland, L., Van Wyche, W., **Kochtitzky, W.**, McNabb, R. and Dahl-Jensen, D. Dynamics throughout a complete surge of Iceberg Glacier on western Axel Heiberg Island, Canadian High Arctic. International Arctic Science Committee Network on Arctic Glaciology. Obergurgl, Austria. January, 2023.
- Bonnaventure, P., Daly, S., Vegter, S., and **Kochtitzky, W.** An examination of near-surface permafrost modelling techniques for boreal wetland environments, Whatì, NT, Canada. American Geophysical Union 2022 Fall Meeting, Chicago, USA. December, 2022.
- Lauzon, B., Copland, L., Van Wyche, W., **Kochtitzky, W.** and McNabb, R. 2022. Evolution in surface morphology and velocity of Airdrop Glacier, western Axel Heiberg Island, over a seven decade long advance. ArcticNet Annual Scientific Meeting, Toronto, Canada. December, 2022.
- Copland, L., **Kochtitzky, W.**, Van Wyche, W., Hugonnet, R., Hock, R., Dowdeswell, J.A., Benham, T., Strozzi, T., Glazovsky, A., Lavrentiev, I., Rounce, D., Millan, R., Cook, A., Dalton, A., Jiskoot, H., Cooley, J., Jania, J. and Navarro, F. 2022. The frontal ablation and area changes of all marine-

- terminating glaciers in the Northern Hemisphere between 2000 and 2020. ArcticNet Annual Scientific Meeting, Toronto, Canada. December, 2022.
- Kindstedt, I., Winski, D., Kreutz, K., Wake, C., Osterberg, E., Copland, L., **Kochtitzky, W.**, Campbell, S., and McConnell, E. A 600-year record of snow accumulation at Eclipse Icefield, St. Elias Mountains, Yukon, Canada. 3rd IPICS Open Science Conference, Crans-Montana, Switzerland. October, 2022.
- Kochtitzky, W.**, Copland, L., Van Wychen, W., Hugonnet, R., Hock, R., Dowdoeswell, J., Benham, T., Strozzi, T., Glazovsky, A., Labrentiev, I., Rounce, D., Millan, R., Cook, A., Dalton, A., Jiskoot, H., Cooley, J., Jania, J., and Navarro, F. The previously unquantified mass loss of northern hemisphere marine-terminating glaciers: frontal ablation from 2000 to 2020. Cryosphere 2020, Iceland. August 2022.
- Lauzon, B., Copland, L., Van Wychen, W., **Kochtitzky, W.**, and McNabb, R. Glacier surge dynamics on Axel Heiberg Island, Nunavut. Cryosphere 2020, Iceland. August 2022.
- Main, B., Copland, L., Smeda, B., **Kochtitzky, W.**, Samsonov, S., Dudley, J., Skidmore, M., Dow, C., Van Wychen, W., Medrzycka, D., Higgs, E., and Mingo, L. Terminus change of Kaskawulsh Glacier, Yukon, Canada, under a warming climate: retreat, thinning, slowdown, and modified proglacial lake geometry. Cryosphere 2020, Iceland. August 2022.
- Kochtitzky, W.**, Copland, L. Which marine-terminating, Northern Hemisphere glaciers have retreated the most since 2000?. International Glaciological Society Symposium on Maritime Glaciers. June 2022, Juneau, Alaska.
- Malles, J.-H., Maussion, F., Ultee, L., **Kochtitzky, W.**, Copland, L. and Marzeion, B. Exploring the role of frontal ablation parameterization in projected 21st-century mass change for Northern Hemisphere glaciers. International Symposium on Maritime Glaciers. June 2022, Juneau, Alaska.
- Kochtitzky, W.**, Copland, L., Van Wychen, W., Hugonnet, R., Hock, R., Dowdoeswell, J., Benham, T., Strozzi, T., Glazovsky, A., Labrentiev, I., Rounce, D., Millan, R., Cook, A., Dalton, A., Jiskoot, H., Cooley, J., Jania, J., and Navarro, F. The first consistent quantification of mass loss from all Northern Hemisphere marine-terminating glaciers: frontal ablation from 2000 to 2020. Cryosphere 2022: International Symposium on Ice, Snow and Water in a Warming World, Reykjavik, Iceland. August 2022.
- Malles, J.-H., Maussion, F., Ultee, L., **Kochtitzky, W.**, Copland, L. and Marzeion, B. Exploring the role of frontal ablation parameterization in projected 21st-century mass change for Northern Hemisphere glaciers. Cryosphere 2022: International Symposium on Ice, Snow and Water in a Warming World, Reykjavik, Iceland. August, 2022.
- Kochtitzky, W.** Arctic Glaciers. New England Arctic Network. March 2022.
- Lauzon, B., Copland, L., van Wychen, W., and **Kochtitzky, W.** Glacier surge dynamics on western Axel Heiberg Island, Nunavut. ArcticNet 2021 Annual Scientific Meeting.
- Zheng, W., Bhushan, S., Van Wyk de Vries, M., **Kochtitzky, W.**, and Shean, D. Gfft: an open-source tool for evaluating remotely sensed glacier velocity products. American Geophysical Union 2021 Fall Meeting, New Orleans, USA.
- Daly, S., Bonnaventure, P., and **Kochtitzky, W.** Predicting Permafrost Probability in a Variable Boreal Environment Utilizing a Multiple Logistic Regression Model, Whatì, NT, Canada. Arctic Change 2020.
- Smith, C., **Kochtitzky, W.**, Edwards, B., Copland, L., Bresnahan, W., Ruff, I., Felknor-Edwards, K., Noonan, P., and Aoid, H. 2020 Dickinson Sydkap Hackweek: Sixty year record of ice area loss from the marine terminating Sydkap Glacier, southern Ellesmere Island, Nunavut, Canada. American Geophysical Union 2020 Fall Meeting.
- Ruff, I., **Kochtitzky, W.**, Edwards, B., Copland, L., Smith, C., Bresnahan, W., Felknor-Edwards, K., Noonan, P., and Aoid, H. Sydkap Glacier Change Project: Ice Cap changes near Canada's most northern community, Grise Fiord, Nunavut, Canada. American Geophysical Union 2020 Fall Meeting.
- Edwards, B., **Kochtitzky, W.**, Copland, L., Smith, C., Bresnahan, W., Ruff, I., Felknor-Edwards, K., Noonan, P., and Aoid, H. 2020 Dickinson Sydkap Hackweek: Ice loss in Southwestern Ellesmere

- and Northwestern Devon Islands since 1959, Nunavut, Canada. American Geophysical Union 2020 Fall Meeting.
- Bresnahan, W., **Kochtitzky, W.**, Edwards, B., Copland, L., Smith, C., Ruff, I., Felknor-Edwards, K., Noonan, P., and Aoid, H. 2020 Dickinson Sydkap Hackweek: Using a U-Net for Semantic Segmentation of Glaciers on Southern Ellesmere and Western Devon Islands, Canada. American Geophysical Union 2020 Fall Meeting.
- Noonan, P., Edwards, B., **Kochtitzky, W.**, Copland, L., Smith, C., Bresnahan, W., Ruff, I., Felknor-Edwards, K., Noonan, P., and Aoid, H. 2020 Dickinson Hackweek: Evidence for Terminus Advance from a Piedmont-type Glacier along the Southeastern Edge of Sydkap Ice Cap, Ellesmere Island, Nunavut, Canada. American Geophysical Union 2020 Fall Meeting.
- Kochtitzky, W.**, Medrzycka, D., Smeda, B., Main, B., Copland, L., Culley, A., Vincent, W., and Dow, C. Photos to Elevations: a photogrammetry pipeline. Ottawa-Carleton Student Northern Research Symposium, March 2020.
- Painter, M., **Kochtitzky, W.**, Copland, L., Dow, C., and Wong, C. Recent Rapid Drainage of Glacier-Dammed Donjek Lake, Yukon. Haines Junction Mountain Festival, Yukon, Canada, February 2020.
- Painter, M., **Kochtitzky, W.**, Copland, L., and Dow, C. Patterns and Mechanisms of Flood Release from Glacier Dammed Donjek Lake, Yukon. International Arctic Science Committee Network on Arctic Glaciology, Obergurgl, Austria, 2020.
- Painter, M., Copland, L., Dow, C., and **Kochtitzky, W.** Recent Rapid Drainage of Glacier Dammed Donjek Lake, Yukon. ArcticNet annual meeting, Halifax, Nova Scotia, Canada, December 2019.
- Kochtitzky, W.**, Medrzycka, D., Smeda, B., Main, B., Copland, L., Culley, A., Vincent, W., and Dow, C. Photos to Elevations: a photogrammetry pipeline. University of Ottawa GIS Day. October 2019.
- Painter, M., Copland, L., Dow, C., and **Kochtitzky, W.** Recent Rapid Drainage of Glacier Dammed Donjek Lake, Yukon. University of Ottawa GIS Day. October 2019.
- Main, B., Copland, L., Samsonov, S., Dow, C., Flowers, G., Young, E., and **Kochtitzky, W.** Surge of Little Kluane Glacier in the St. Elias Mountains, Yukon, Canada, from 2017-2018. American Geophysical Union 2019 Fall Meeting, San Francisco, USA.
- Nolan, A., **Kochtitzky, W.**, Enderlin, E., McNabb, R., Jiskoot, H., and Kreutz, K. 2019. Examining Glacier Instabilities: A Case Study of Turner Glacier. UMaine Student Symposium.
- Kochtitzky, W.**, Jiskoot, H., Enderlin, E., Copland, L., Dow, C., Main, B., and Kreutz, K. 2018. Surging of Donjek Glacier, Yukon, Canada from 1935 to Present: Terminus Position, Ice Velocity, and Elevation Change. American Geophysical Union 2018 Fall Meeting, Washington, DC, USA.
- Nolan, A., **Kochtitzky, W.**, Enderlin, E., McNabb, R., Jiskoot, H., and Kreutz, K. 2018. Kinematics of the Unprecedentedly-Short Surge Cycles of Turner Glacier, St. Elias Mountains, Alaska, from 1984 to 2017. American Geophysical Union 2018 Fall Meeting, Washington, DC, USA.
- Fisher, J., **Kochtitzky, W.**, Edwards, B., Irving, W., and Russell, K. 2018. Heat Wave Causes Major Melting Event in 2017 at 3 Glaciers Along the Lower Iskut River, British Columbia, Canada. American Geophysical Union 2018 Fall Meeting, Washington, DC, USA.
- Sah, K., **Kochtitzky, W.**, Dryak, M., Dougherty, W., Edwards, B., Gudmundsson, M., and Belart, J. 2018. Climate and Singular Event Glacier Change on Gígjökull and Steinhóltsjökull, Iceland. American Geophysical Union Fall Meeting 2018, Washington, DC, USA.
- Curley, A., **Kochtitzky, W.**, Edwards, B., Bonsey, K., and Ritter, M. (2018). Field and Remote Sensing Observations on Retreating Outlet Glaciers on the Northern Edge of the Prince of Wales Icefield, Central Ellesmere Island, Canada. American Geophysical Union 2018 Fall Meeting, Washington, DC, USA.

- McConnell, E., Kreutz, K., Campbell, C., Winski, D., Copland, L., Zdanowicz, C., **Kochtitzky, W.**, Introne, D., and Nolan, A. (2018). Calibrating Ice Core, Weather Station, and NASA MODIS Ice-Surface Temperature Records to Analyze Atmospheric Variability in the St. Elias, Yukon, Canada. American Geophysical Union 2018 Fall Meeting, Washington, DC, USA.
- Main, B., Copland, L., Van Wychen, W., Dow, C., McNabb, R., and **Kochtitzky, W.** 2018. Evolution of cumulative mass balance of a surge-type glacier. ArcticNet Annual Scientific Meeting, Ottawa, Canada.
- Edwards, B. and **Kochtitzky, W.** 2018. Potential Impacts of Climate Change on Glacierized Volcanic Systems. European Geophysical Union Spring Meeting. EGU2018-11102, Vienna, Austria.
- Dougherty, W., Edwards, B., **Kochtitzky, W.**, Oddsson, B., and Gudmundsson, M. T. Influence of Gígjökull on the Emplacement of the Lava Flow Produced by the 2010 Eruption of Eyjafjallajökull, Iceland, and the Flow's Effects on the Glacier's Resilience to Climate Change. American Geophysical Union 2017 Fall Meeting, New Orleans, USA.
- Kreutz, K., Campbell, S., Winski, D., Osterberg, E., **Kochtitzky, W.**, Copland, L., Dixon, D., Introne, D., Medrzycka, D., Main, B., Bernsen, S., and Wake, C. 2017. Sub-annual North Pacific hydroclimate variability since 1450AD from updated St. Elias ice core isotope and accumulation rate records. American Geophysical Union 2017 Fall Meeting, New Orleans, USA.
- Kochtitzky, W.** 2017. Snow Accumulation Controls on Surge-type Glacier Dynamics: Donjek Glacier, Yukon Territories. Cool Models Workshop, Norway.
- Kochtitzky, W.** 2017. Mass Accumulation Controls on Glacier Surges: Understanding the surge dynamics of Donjek Glacier, Yukon Territory, Canada. RemoteEx Workshop, Iceland.
- Kochtitzky, W.** and Enderlin, E. Submarine Iceberg Melting Measurements Using High-Spatial Resolution Remote Sensing Observations in Greenland Fjords. 2017. International Arctic Science Committee Network on Arctic Glaciology Annual Meeting. Bethel, Maine, USA.
- Mariño J., Thouret J.C., Aguilar R., Cabrera M., Bromley G., Manrique N., Edwards B., and **Kochtitzky W.** 2016. Geological study of the ice-clad Nevado Coropuna volcanic complex (Peru). Abstract and poster. IAVCEI COV9 Cities on Volcanoes meeting, Puerto Varas, Chile.
- Kochtitzky, W.** and Edwards, B. 2016. El Niño Southern Oscillation controls snow cover on Nevado Coropuna: measurements using Landsat satellites. C33B-0779 presented at American Geophysical Union 2016 Fall Meeting, San Francisco, USA.
- Edwards, B., Pollock, M., **Kochtitzky, W.** and Engen, C. 2016. 3-D Mapping Of Quarry Walls To Constrain The Internal Structure Of A Glaciovolcanic Tindar, SW Iceland. Geological Society Of America Abstracts With Programs. Vol. 48, No. 7, Denver, USA.
- Thompson, A., Orden, M., Lembo, C., Wallace, C., Kumpf, B., Heineman, R., Engen, C., Edwards, B., Pollock, M. and **Kochtitzky, W.** 2016. Physical Characteristics Of Glaciovolcanic Pillow Lavas From Undirhlidar, Sw Iceland. Geological Society Of America Abstracts With Programs. Vol. 48, No. 7, Denver, USA.
- Heineman, R., Lembo, C., Engen, C., **Kochtitzky, W.**, Wallace, C., Orden, M., Thompson, A., Kumpf, B., Edwards, B. and Pollock, M. 2016. New Insights On The Formation Of Glaciovolcanic Tindar Ridges From Detailed Mapping Of Undirhlidar Ridge, Sw Iceland. Geological Society Of America Abstracts With Programs. Vol. 48, No. 7, Denver, USA.
- Wallace, C., Kumpf, B., Heineman, R., Lembo, C., Orden, M., Thompson, A., Engen, C., **Kochtitzky, W.**, Pollock, M., Edwards, B. and Hiatt, A. 2016. Geochemical Constraints On The Magmatic System And Eruptive Environment Of A Glaciovolcanic Tindar Ridge From Undirhlíðar, Sw Iceland. Geological Society Of America Abstracts With Programs. Vol. 48, No. 7. Denver, USA.

- Diamond, S., Plascencia, E., **Kochtitzky, W.**, Edwards, B., Marino, J. and Strock, K. E. 2016. Diatom Community Shifts in Response to Volcanic Activity and Long-term Climatic Change in a High Altitude South American Lake. SS17, #24 at Association for the Sciences of Limnology and Oceanography in Sante, Fe, NM.
- Kochtitzky, W.**, Edwards, B., Mariño, J. and Manrique, N. 2015. Peruvian Tropical Glacier May Survive Longer Than Previously Thought: Landsat Image Analysis of Nevado Coropuna Ice Cap, Peru. C21B-0729 presented at 2015 Fall Meeting, AGU, San Francisco, CA.
- Kochtitzky, W.**, Edwards, B., Mariño, J. and Manrique, N. 2015. Tropical Ice-Cap Found to be Melting Slower, the Case of Nevado Coropuna Volcanic Complex, Southern Peru. Geological Society of America Abstracts with Programs. Vol. 47 No. 7, Baltimore, USA.
- Edwards, B., and **Kochtitzky, W.** 2015. Assessing the Global Potential for Volcano-Ice Interactions. Geological Society of America Abstracts with Programs. Vol. 47 No. 7, Baltimore, USA.
- Plascencia, E., **Kochtitzky, W.**, Strock, K., Edwards, B., Mariño, J. and Manrique, N. 2015. Analysis of Sediment and Ash from Lago Pallarcocha, Nevado Coropuna, Peru. Geological Society of America Abstracts with Programs. Vol. 47 No. 7, Baltimore, USA.
- Franceschi, J. O., Reinthal, M., Pollock, M., Edwards, B., Plascencia, E. and **Kochtitzky, W.** 2014. Preliminary Geochemical Constraints on the Evolution of Pillow Ridge Tindar, Edziza Volcanic Complex, NCVP. Geological Society of America Abstracts with Programs. Vol. 46 No. 6, Vancouver, Canada.

Select Public Talks

- The retreat of glaciers from the ocean: climate change is not (solely) to blame (Invited). Arctic Circle Annual General Meeting. Ottawa, Canada, 2021.
- Frontal Ablation of Northern Hemisphere Glaciers. International Glaciological Society Seminar Series, August, 2021.
- Frontal Ablation of Northern Hemisphere Glaciers (Invited). Open Global Glacier Model Meeting. June, 2020.
- Evolution of Glaciers in a Warming Climate. GOICE Workshop, Alberta, Canada, 2020.
- Surging Glaciers and Outburst Floods: connections to climate and hazards to people, Donjek Glacier, Yukon (Invited). Phipps-Langlois Geography Seminar. Ottawa, Canada, 2020.
- Photos to Elevations: a photogrammetry pipeline. International Arctic Science Committee Network on Arctic Glaciology, Obergurgl, Austria, 2020.
- Surging Controls at Donjek Glacier, Yukon, Canada, from 1935 to present. International Arctic Science Committee Network on Arctic Glaciology, Geilo, Norway, 2019.
- The Surging of Donjek Glacier, Yukon Territory, Canada. RemoteEx Workshop, Lethbridge, Canada. 2018.
- What Causes Glaciers to Become Unstable? Borns Symposium, Maine. 2018.
- Why do Glaciers Surge? University of Maine Brown Bag Seminar, Maine. 2018.
- Ice on the Move (Invited). Dickinson College Lunch and Learn Series, Pennsylvania. 2018.
- Snow Accumulation Controls on Surge-type Glacier Dynamics: Donjek Glacier, Yukon Territories. Cool Models Workshop, Norway. 2018.
- A Front Row Seat to the International Climate Change Negotiations (Invited). Co-presented with Anna McGinn, Cindy Isenhour, and Aaron Strong. University of Maine Speaker Series, Maine. 2017.
- Submarine Iceberg Melting and Measurements using High-Spatial Resolution Remote Sensing Observations

in Greenland. International Arctic Science Committee Network on Arctic Glaciology, Maine. 2017.
Mass Accumulation Controls on Glacier Surges: Understanding the surge dynamics of Donjek Glacier,
Yukon Territories, Canada. RemoteEx workshop, Iceland. 2017.
Volcano Ice Interactions (Invited). Peruvian Volcano Observatory, Arequipa, Peru. 2015.
Environmental and Archaeological Research in the Lake Titicaca and Poopó Basins, Bolivia (Invited). Earth
Science Seminar series, Pennsylvania. 2013.

Current Certifications

- US Federal Aviation Administration Certified UAS (drone) Pilot, 2018 to present
- Wilderness First Responder (WFR), 2013 to present
- Crevasse rescue certified, 2020 to present
- Adult/Child CPR, AED, and Airway, 2013 to present