Jennifer Horwath Burnham

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EDUCATION

2007 - University of Washington, Ph.D., Earth and Space Sciences

2002 - University of Illinois, M.S., Environmental Studies in Physical Geography

1997 - Augustana College, B.A., Geography

EXPERIENCE

Director, Augustana Center for Polar Studies (2017- present)

Department Chair, Department of Geography, Augustana College (9/2012 – present)

Associate Professor, Department of Geography, Augustana College (9/2012 – present)

Assistant Professor, Department of Geography, Augustana College (9/2006 – 8/2012)

Board of Director, High Arctic Institute (2007– present)

AWARDS AND GRANTS (*Since 2006*)

Presidential Fellowship, Augustana College (2014 and 2018)

G.K. Gilbert Award for Excellence in Geomorphological Research
Geomorphology Specialty Group, Association of American Geographers, 2013

Anne U. White Award
Association of American Geographers, 2010

Augustana College Research Support
Faculty Research Fund, 2014, 2012, 2010, 2008
New faculty research funding, 2008

PUBLICATIONS (*Since 2006*) * indicates student author

Burnham, K.K., **Burnham, J.L**., Behnke, C.*, Phillips, R., and B.W. Konkel. (*In prep*) Spatial Analysis of Migratory Pathways of Black-legged Kittiwakes (*Rissa tridactlya*) from Northwest Greenland Using Geolocator Technology

Burnham, K.K., **Burnham, J.L**., Meyer, F.,* and M.M. Chumchal. (*In prep*) Mercury contamination in eggs of three high Arctic seabird species

Burnham, J.L., Burnham, K.K, Chumchal, M.M., Welker, J.M, and J.A. Johnson. (2018) Correspondence between mercury and stable isotopes in high Arctic marine and terrestrial avian species from northwest Greenland. *Polar Biology* doi:10.1007/s00300-018-2302-9

Burnham, K.K., **Burnham, J.L.**, Konkel, B.W. and J.A. Johnson, J.A. (*2017*) Significant decline observed in Arctic Tern *Sterna paradisaea* population in northwest Greenland *Seabird* (30):39-50

Gabet, E., **Horwath Burnham, J**. and T. Perron. 2016. Critiques of the Seismic Hypothesis and the Vegetation Stabilization Hypothesis for the formation of Mima mounds in the western U.S. *Geomorphology* 269:40–42

Burnham K.K., Sinnett D.R., Johnson J.A., **Burnham J.L**., Baroch J.A., and B.W. Konkel. 2014 New species records and changes in population status for waterfowl in northwest Greenland. *Polar Biology 37(9):1289-1300.*

K.K. Burnham, J. Johnson, B. Konkel and **J.L. Burnham.** 2012. Nesting common eider (*Somateria mollissima*) population quintuples in northwest Greenland. *Arctic 65(4)*.

Horwath Burnham, J., Johnson, D.L., and D.N. Johnson. 2012. The significance of stone layers in mima mounds. *In* Mima Mounds: The Case for Polygenesis and Bioturbation. Horwath Burnham and Johnson. (eds) Geological Society of America Special Paper 490. Boulder, CO.

Johnson, D.L. and **J. Horwath Burnham**. 2012. Introduction chapter to Mima Mounds: The Case for Polygenesis and Bioturbation. Horwath Burnham and Johnson. (editors) Geological Society of America Special Paper 490. Boulder, CO.

Burnham, J.L., and K.K. Burnham. 2010. An ornithological survey of the Carey Islands, northwest Greenland. *Dansk Ornitologisk Forenings Tidsskrift* 104:26-37

Burnham, J.L., and R.S Sletten. 2010. Spatial distribution of soil organic carbon in northwest Greenland and underestimates of High Arctic carbon stores *Global Biogeochemical Cycles.* Vol. 24, GB3012, doi:10.1029/2009GB003660

Horwath, J.L., R.S. Sletten, B. Hagedorn, and B. Hallet. 2008. Spatial and temporal distribution of soil organic carbon in non-sorted striped patterned ground of the High Arctic, *Journal of Geophysical Research: Biogeosciences*, 113, G03S07, doi:10.1029/2007JG000511.

Sullivan, P.F., Welker, J.M., Hagedorn, B., Sletten, R.S., Arens, S. and **J.L. Horwath.** 2008. Energy and water additions give rise to expected and unexpected results in plant canopy and soil microclimates of a High Arctic ecosystem. *Journal of Geophysical Research: Biogeosciences* 113, G03S08, doi:10.1029/2007JG000477

Horwath, J.L, and D.L. Johnson. 2006. Mima-type mounds in southwest Missouri: expressions of point-centered and locally thickened biomantles. *Geomorphology* 77:308-319.

Co-Edited Book

Mima Mounds: The Case for Polygenesis and Bioturbation. (2012) Eds. **Horwath Burnham, J.** and D.L. Johnson. Geological Society of America Special Paper 490. Boulder, CO

Conference Presentations

Burnham, J., Burnham, K.K., Chumchal, M. Johnson. J. and J.M. Welker. 2017. Status of mercury concentration in twenty-four species in northwest Greenland. North Water Polynya Conference. Copenhagen, Denmark. November 21-24.

Burnham, J.L., Burnham, K.K., Robb, Z*. and B. Konkel. 2017. Spatial Analysis of Migratory Pathways of Atlantic Puffins (*Fratercula arctica*) from Northwest Greenland Using Geolocator Technology. Association of American Geographers Meeting. Boston, MA

Burnham, J.L., Burnham, K.K., Chumchal, M., Johnson, J. and J. Welker. 2015. Trophically disparate levels of blood mercury in breeding birds of northwest Greenland. Association of American Geographers Meeting. Chicago, IL. Abstract #66741.

Sletten, R.S., Hagedorn, B., Hallet, B. and **J.L. Burnham**. 2013. Active layer warming and deepening at Thule, Greenland during past decade: a comparison of a polar desert and a polar semi-desert site. *Eos Trans. AGU,* Fall Meet. Suppl.

Horwath Burnham, J. 2013. A man and his mounds: Contributions of Donald L. Johnson to the field of mima mound studies. *GSA Abstracts with Programs*. Denver, CO

Bargmann, N.A., Burnham, K.K., **Burnham, J.L.**, Padula, V.M., Welker, J.M. and D. Causey. 2012. Biogeochemical indicators of change in High- and Low-Arctic marine bird communities: comparative isotopic (13C, 15N, and 34S) studies in Alaska and Greenland. 39th Annual Meeting of the Pacific Seabird Group, 7–12 February, Turtle Bay, HI.

Causey, D., Bargmann, N.A., Padula, V.A., Burnham, K.K., **Burnham, J.L**. and J. Welker. 2012. Biogeochemical indicators of change in Arctic and Subarctic marine bird communities: Alaska and Greenland. Alaska Marine Science Symposium,16–20 January, Anchorage, AK.

Causey, D., Bargmann, N.A., Burnham, K.K., **Burnham, J.L**., Padula, V.A., Johnson, J.A., and J. Welker. 2011. Biogeochemical Indicators in High- and Low-Arctic Marine and Terrestrial Avian Community Changes: Comparative Isotopic (13C, 15N, and 34S) Studies in Alaska and Greenland *Eos Trans. AGU,* Fall Meeting Supplement. GC51F-1079

Johnson, D.L., **Horwath Burnham, J.** and D.N. Johnson. 2011. Historic formation and re-formation of mima mounds. *GSA Abstracts with Programs Vol. 43, No. 5. #197528*, Minneapolis, MN.

Burnham, J.L., Burnham, K., Chumchal, M., and J.Johnson. 2011. Quantification and spatial distribution of mercury in avian species of northwest Greenland. *Abstract with Programs – Association of American Geographers Annual Meeting.* Seattle, WA. April 16, 2011

Schulwitz, S.E., Chumchal, M.M., **Burnham, J.,** Burnham, K. and J.A. Johnson. 2011 Comparison of mercury in birds at temperate, sub-Antarctic and Arctic locations. Ecological Society of America , Austin, TX.

Welker, J. M., Sullivan, P., Rogers, M., Sharp, E. D., Sletten, R., **Burnham, J. L.,** Hallet, B., Hagedorn, B., and Czimiczk, C. 2009. Climate change consequences for terrestrial ecosystem processes in NW Greeland: Results from the High Arctic Biocomplexity project. American Geophysical Union, abstract #GC41D-04

Burnham, J.L., and D.L. Johnson. 2008. The biodynamic significance of double stone-layers at Diamond Grove mima moundfield, southwest Missouri. *Abstract with Programs – Geological Society of America Meeting* – Houston, TX.

Horwath, J.L., Sletten, R.S., Hagedorn, B. and B. Hallet. 2006. Ancient carbon buried in patterned ground: soil and soil carbon dynamics based on ^{14}C age of soil carbon, Pituffik NW Greenland (76°N, 68°W). *Eos Trans. AGU, 87*(52), Fall Meet. Suppl., Abstract C44A-03.

Horwath, J.L., R.S. Sletten, and J. Welker. 2006. Associations of soil organic carbon with non-sorted striped patterned ground in northwest Greenland. *Abstract with Programs – Association of American Geographers Annual Meeting.* Chicago, IL.

STUDENT RESEARCH ADVISING

Served as primary research advisor on these Greenland research projects:

Biesterfeld, Ryan (2010)	The Spatial Distribution of Methyl Mercury in High Arctic Avian Species of Northwest Greenland
Behnke, Claire (2012)	The Migration Patterns of Black-legged Kittiwakes (*Rissa tridactyla*) Breeding in Northwest Greenland
Meyer, Fallon (2014)	Mercury Contamination in Arctic Seabird Eggs from Northwestern Greenland
Zoe Robb (2016)	GIS research on Atlantic Puffin geolocator data from NW Greenland
Sara Baugh (2016-17)	Washed Away: Summer Storm Occurrence Effect on Two Passerine Bird Species in Northern Greenland