

REBECCA A. FINGER HIGGENS, Ph.D.

Research Ecologist • US Geological Survey

Southwest Biological Research Station

2290 Resource Blvd.

Moab, UT 84532

rfinger-higgins@usgs.gov

EDUCATION

2015-2020 Ph.D. Ecology, Evolution, Environment and Society, Dartmouth College

Dissertation subject: Ecological consequences of a warming and drying Arctic

Advisor: Dr. Laura A. Ogden

2012-2014 M.S. Biological Science, University of Alaska Fairbanks

2002-2006 B.S. Environmental Science, *cum laude*, The George Washington University

PEER-REVIEW PUBLICATIONS

Finger-Higgins, R.A., Duniway, M.C., Fick, S., Geiger, E.L., Hoover, D.L., Pfennigwerth, A.A., Van Scoyoc, M.W., Belnap, J. Declining biocrust lichen cover suggests warming tipping point has already been met in a protected grassland. *In prep for submission to Proceedings of the National Academies of Sciences on 5/17/2021.*

Snorek, J.L., Cox, M.C., Loos, J., Shata, T., Bowman, A., Kramer, J., Snodgrass, J., Iniquez, V., Krivak-Tetley, F., **Finger-Higgins, R.A.** What motivates collaboration in relational hubs? A case of South African watershed partnership. *In prep for submission to Ecology and Society on 6/01/2021.*

Finger-Higgins, R.A., DeSiervo, M.H., Ayres, M.P., Virginia, R.A. (2021). Increasing shrub damage by invertebrate herbivores in the warming and drying tundra of West Greenland. *Oecologia*. **195(4)**, 995-1005.

Erbaugh, J., Callahan, C., **Finger-Higgins, R.**, DeSiervo, M., Bolger, D., Cox, M., Howarth, R. (2021). Sociotechnical equilibrium and transitions. *Current Opinion in Environmental Sustainability*. **49**, 33-41.

Lembrechts, J., Ashcroft, M., [and 167 other authors including **Finger Higgins, R.**] (2020). SoilTemp: A global database of near-surface temperature. *Global Change Biology*. **26(11)**, 6616-6629.

Finger Higgins, R.A., Pries, C.H., Virginia, R.A. (2020). Trade-offs between wood and leaf production in Arctic shrubs along a temperature and moisture gradient in West Greenland. *Ecosystems*. **24(3)**, 652-666.

Finger Higgins, R.A., Chipman, J.W., Lutz, D.A., Culler, L.E., Virginia, R.A., Ogden, L.A. (2019). Changing lake dynamics in western Greenland. *Journal of Geophysical Research: Biogeosciences*. **124**, 870-883. DOI: 10.1029/2018JG004879

Finger, R., Turetsky, M.R., Kielland, K., Mack, M.C., Ruess, R.W., & Euskirchen, E.S. (2016). Effects of permafrost thaw on a boreal Alaskan lowland. *Journal of Ecology*. **104**, 1542-1554.

FELLOWSHIPS AND AWARDS

2017 American Alpine Club Research Grant (\$1000)
2015-17 Dartmouth College, National Science Foundation Joint Science Education Graduate Fellowship
2014 University of Alaska Fairbanks, Graduate School, Thesis Completion Grant
2014 University of Alaska Fairbanks, Institute of Arctic Biology, Summer Graduate Research Fellowship (\$10,000)
2014 University of Alaska Fairbanks, Graduate School, Travel Grant (\$1000)
2013-14 University of Alaska Fairbanks, National Science Foundation Changing Alaska Science Education GK-12 Fellowship
2013 University of Alaska Fairbanks, Institute of Arctic Biology, Travel Grant (\$1000)
2013 University of Alaska Fairbanks, Center for Global Change, Student Research Grant (\$3,600)
2013 Society of Wetland Scientists, Student Research Grant (\$1,000)
2012 Colorado Labs Governor's Award for High Impact Research for Invasive Mussel Research
2007 Student Conservation Association, Americorps Educational Award (\$2,000)

RESEARCH EXPERIENCE

2015-2018 Ph.D. dissertation research, Kangerlussuaq, Greenland
2012- 2014 M.S. thesis research, Alaska Peatland Experiment, University of Alaska Fairbanks
2012 Biology Field Technician, Environmental Planning Group Inc., Salt Lake City, UT
2011 Research technician, Yukon River Biodiversity Research Initiative, University of Alaska Fairbanks
2009, 2010 Lead Research Technician, Aquatic Nuisance Species Monitoring Program, Colorado Division of Wildlife, Denver, CO
2008 Stream Survey Technician, PACFISH/INFISH Biological Opinion, US Forest Service, Logan, UT
2007 Student Conservation Association Intern, Western Ecological Research Center, US Geological Survey, Henderson, NV

SERVICE & LEADERSHIP

2020 Early career reviewer for Second Order Draft of 6th Intergovernmental Panel on Climate Change
2019-present President, Dartmouth Graduate Women in Science and Engineering and Dartmouth Representative for Northeast GWISE
2017-2019 Executive board member, Dartmouth Graduate Women in Science and Engineering
2013-2014 President, UAF Biology Graduate Student Association

MENTORING, TEACHING, & GUIDING EXPERIENCE

2019-present Online Planting Science Liaison for the Ecological Society of America

- 2019** Instructor, Environmental Studies Foreign Study Program in South Africa, Dartmouth College
- 2018-present** Online mentor for high school students, Mentor Matching Engine
- 2018** Teaching assistant, Methods in Field Ecology (BIOL 021), Dartmouth College
- 2017** Teaching assistant, Environmental Studies Foreign Study Program in South Africa, Dartmouth College
- 2016,2017** Teaching assistant, Biostatistics (BIOL 029), Dartmouth College
- 2015-2017** NSF JSEP Graduate Fellow for Kangerlussauq, Greenland Science Week, Dartmouth College
- 2014, 2015** Alaska Science Research Academy Instructor
 “Food for Thought” module 2014
 “Secrets in Ice: Permafrost” module 2015
- 2013-14** NSF Graduate GK-12 Fellow
 9th grade Biology and Earth Science, Lathrop High School, Fairbanks, AK
- 2011-12, 10-11** Ski instructor, Copper Mountain Resort, Frisco CO
- 2006, 2007,** Guide including whitewater rafting, climbing, and ropes course, Ace Adventure
2008 Center, Minden, WV
- 2007-08** Ski instructor, Copper Mountain Resort, Frisco, CO

CONFERENCES, AND PRESENTATIONS

Finger Higgins, R.A. Landscape controls on insect herbivory in western Greenland. Oral presentation at the Graduate Climate Change Conference, Woods Hole, MA, November 2019.

Finger Higgins, R.A., Pries, C.H., Virginia, R.A. When bigger is less: trade-offs between wood and leaf production in Arctic shrubs along a temperature and moisture gradient in West Greenland. Poster presentation at Ecological Society of America Annual Conference. Louisville, KY, August 2019.

Finger Higgins, R.A., Chipman, J.W., Lutz, D.A., Culler, L.E., Virginia, R.A. A drier Arctic? changing lake dynamics in western Greenland. Poster presentation at American Geophysical Union Annual Meeting, Washington, DC, December 2018.

Culler, L.E., **Finger, R.A.,** Plane, E., Ayers, M., Virginia, R.A. (2015). Increases in Growing Season Length and Changes in Precipitation at Six Different Arctic and Subarctic Ecosystems from 1906-Present. Poster presentation at American Geophysical Union Annual Meeting, San Francisco, CA, December 2015.

Finger, R., Euskirchen, S.E., & Turetsky, M.R. Permafrost thaw, nitrogen availability, and plant-soil interaction in an interior Alaskan lowland. Oral presentation at the BGSA Midnight Sun Symposium, Fairbanks, AK, April 2014.

Finger, R., Euskirchen, S.E., & Turetsky, M.R. Permafrost thaw, nitrogen availability and plant nitrogen acquisition in an interior Alaskan lowland. Oral presentation at the American Geophysical Union Annual Meeting, San Francisco, CA, December, 2013.

Professional Organization Affiliations

Ecological Society of America

American Geophysical Union

United States Permafrost Association

Herbivory Network

NE GWISE