

Teresa Nettleton Hollingsworth

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EDUCATION:

2000-2004

University of Alaska Fairbanks
Ph.D., Biological Sciences: Biology

1998-2000

Lancaster University, Lancaster England
Masters of Science, Biological Sciences

1993-1997

University of Colorado, Boulder
B.A., Environmental, Population and Organismic Biology

PROFESSIONAL EXPERIENCE:

- Acting Deputy Directory, Aldo Leopold Wilderness Research Institute, USFS RMRS Research Station (March 2021-February 2022)
- Acting Program Manager, Ecological Processes and Function program, USFS PNW Research Station (February 2018-February 2020, August 2020-December 2020)
- Research Ecologist, USFS PNW Research Station, Boreal Ecology Cooperative Research Unit (January 2005-present)
- Research Associate Professor, Institute of Arctic Biology, University of Alaska of Fairbanks (2015-present)
- Affiliate Assistant Professor of Forest Ecology, Department of Forest Sciences, School of Natural Resources and Extension, University of Alaska Fairbanks (April 2005-present)
- Ecologist Trainee (SCEP), USFS PNW Research Station, Boreal Ecology Cooperative Research Unit (October 2002-December 2004)
- Graduate Research Assistant, University of Alaska Fairbanks (January 2000-September 2002)
- Graduate Research/Teaching Assistant, Lancaster University, England (October 1998-October 1999)

RECENT GRANTS AND FELLOWSHIPS:

- Fostering Science: Expanding Access to Science Camp to Youth in Care of the State- The Alaska NSF EPSCoR seed grant (CoPI) (2020)
- Every Kid in a Park “Bonanza Creek Adventure Camp- Fostering Science for children in state custody” (PI) (2019)
- NASA Arctic Boreal Vulnerability Experiment (ABoVE) “Biophysical characteristics and mechanisms of environmental disturbances influencing human access to ecosystem services in boreal Alaska” (Co PI) (2015-2019)
- PNW Research Station, 2014 RFP “Effects of wildfire on subsistence opportunities in Alaska” (PI) (2014-2017)
- PNW Research Station, Interior Alaska Focus Area “Characterizing vegetation response to climate warming in interior Alaska over three decades (1982-2012) using multi-temporal high resolution airborne data and field measurements” (Co PI) (2012-2014)
- National Science Foundation, Long-Term Ecological Research Program “Regional consequences of changing climate-disturbance interactions for the resilience of Alaska’s boreal forest” (Co PI) (2010-2016)
- Western AK LCC: “Characterizing post-fire successional trajectories in tundra ecosystem” (PI) (2011-2013)
- Joint Fire Science Program “Fire effects on seedling establishment success across treeline: implications for future tree migration and flammability in a changing climate” (Co PI) (2012-2014)

- USGS Yukon Basin Initiative “ Effects of climate change on the Yukon River Basin: Changes in water and implications for wildlife habitat, human subsistence, and climate regulation” (Co PI) (2009-2012)
- PNW Cooperative Agreement with University of Alaska Fairbanks: “Assessing the impact of climate change in Alaska: Current trends and future projections for forests” (Federal Principal Investigator) (2009)
- Joint Fire Science Program “Managing fire with fire in Alaska black spruce forests: Impacts of fire severity on successional trajectory and future forest flammability (Federal PI) (2005-2007)
- National Science Foundation, Long-Term Ecological Research Program “The dynamics of change in Alaska’s boreal forests: Resilience and vulnerability in response to climate warming” (Senior Investigator) (2006-2010)

PROFESSIONAL SERVICES AND MEMBERSHIPS:

- Forest Service Representative on the Interagency Arctic Research and Policy Committee (IARPC, Fire subcommittee) (October 2012-2016)
- Advisory Board of the Alaska Fire Science Consortium (October 2011-present)
- Forest Service Representative for the University of Alaska Cooperative Ecosystem Studies Unit (2019-present)
- Tribal Liaison for PNW Research Station to Interior Alaska tribes (2019-present)
- PNW Representative for the International Boreal Forest Association (IBRFA) (September 2010-present)
- Associate Editor for special issue of Canadian Journal of Forest Research derived from the 2011 IBFRA conference (2012)
- PNW Representative for the NEON Taiga Domian working group (December 2008-2015)
- NSF DEB Review Panel for CDR LTER (June 2015)
- 18 month term member of the PNW Research Station Leadership Team (December 2005-July 2007)
- Member of the Bonanza Creek LTER Executive Committee (January 2005-present)
- Student representative to the Bonanza Creek LTER Executive Council. (August 2001- 2003).
- Bonanza Creek LTER student representative to the LTER student association (August 2000-December 2004)
- Member of the American Geophysical Union, Ecological Society of America, and the International Association of Vegetation Ecology

AWARDS AND HONORS:

- NASA-MSU Professional Enhancement award (2002)
- Finalist for the 2004 International Boreal Forest Association Young Scientist Award
- 2004 International Association of Vegetation Science Young Scientist Award (2nd place)
- PNW Research Station “On the Spot” award October 2005, October 2006, October 2008.
- PNW Certificate of Merit October 2010, October 2011, October 2017, October 2018
- Invited speaker at the Indigenous Exchange on Climate Change Forum, February 2016

PUBLICATIONS:

- **Peer-reviewed articles-**

Hollingsworth, T.N., A.L. Breen, R.E. Hewitt, and M.C. Mack (in press). Does fire always accelerate shrub expansion in Arctic Alaska tundra? Examining a novel grass-dominated successional trajectory on the Seward Peninsula. *Arctic Alpine and Antarctic Research*

Houseman, B.H., R.W. Ruess, T.N. Hollingsworth, and D. Verbyla (2020). Can Siberian postfire Alder N-fixation offset N-loss in severe fires in boreal Alaska? Quantifying post-fire Siberian alder distribution, growth, and nitrogen-fixation in two burn scars in the Yukon-Tanana ecoregion. *PLoS One* 15(9): e0238004 <https://doi.org/10.1371/journal.pone.0238004>

- Hewitt, R.E., F.S. Chapin III, T.N. Hollingsworth, M.C. Mack, A.V. Rocha, and D.L. Taylor (2020). Limited overall impacts of ectomycorrhizal inoculation on recruitment of boreal trees into Arctic tundra following wildfire belie species-species responses. *PLoS One* 15(7): E0235932 <https://doi.org.10.1371/journal.pone.0235932>
- Brown, D.R.N., T.J. Brinkman, D.L. Verbyla, W.R. Bolton, and T.N. Hollingsworth (2020). Implications of climate variability and changing seasonal hydrology for subarctic riverbank erosion. *Climatic Change* <https://doi.org/10.1007/s10584-020-02748-9>
- Johnstone, J.F., G. Celis, M.C. Mack, F.S. Chapin III, T.N. Hollingsworth, M. Jean (2020). Factors shaping alternate successional trajectories in burned black spruce forests of Alaska. *Ecosphere* 11(5): e03129. 10.1002/ecs2.3129
- Cold, H.S., T.J. Brinkman, T.J., C.L. Brown, T.N. Hollingsworth, D.L. Verbyla, K.M. Heeringa, and D.R.N Brown (2020). Assessing vulnerability of subsistence travel to effects of environmental change in Interior Alaska. *Ecology and Society* 25(1):20. <https://doi.org/10.5751/ES-11426-250120>
- Julianus, E.L., T.N. Hollingsworth, A.D. McGuire, and K. Kielland (2019). Moose (*Alces alces*) browse availability and use in response to post-fire succession on Kanuti National Wildlife Refuge, Alaska. *Alces* 55: 67-89.
- Wenninger, A., T. Hollingsworth, and D. Wagner (2019) Predatory hymenopteran assemblages in boreal Alaska: associations with forest composition and post-fire succession. *Ecoscience* doi: 10.1080/11956860.2018.1564484
- Brown, D.R.N., T.J. Brinkman, D.L. Verbyla, H. Cold. C. Brown, and T.N. Hollingsworth (2018). Changing river ice seasonality and impacts on interior Alaskan communities. *Weather, Climate, and Society* 10(4): doi 10.1175/WCAS-D-17-0101.1
- Cahoon, S.M.P, P.F. Sullivan, A.H. Brownlee, R.R. Pattison, H-E Andersen, K. Legner, T.N. Hollingsworth (2018). Contrasting drivers and trends of boreal tree growth: implications for a biome shift in interior Alaska. *Ecology* 99(6): doi 10.1002/ecy.2223
- Hewitt, R.E., D.L Taylor, T.N. Hollingsworth, C.B. Anderson, and G. Martinez (2018). Variable retention harvesting influences belowground plant-fungal interactions of *Nothofagus pumilio* seedlings in forests of Southern Patagonia managed with the variable retention method. *PeerJ*: July 6, 2018 30002952
- Sullivan, P.F., R.R. Pattison, A.H. Brownlee, S.M.P. Cahoon, and T.N. Hollingsworth (2017). Limited evidence of declining growth among moisture-limited black and white spruce in interior Alaska. *Scientific Reports*: 7(15344) doi: 10.1038/s41598-017-15644-7.
- Hewitt, R.E., T.N. Hollingsworth, F.S. Chapin III, and D.L. Taylor (2017). The potential for mycobiant sharing between shrubs and seedlings to facilitate tree establishment after wildfire at Alaska arctic treeline. *Molecular Ecology* 2017: 1-13 DOI: 10.1111/mec.14143
- Wolken, J.M., D.H. Mann, T.A. Grant III, A.H. Lloyd, and T.N. Hollingsworth (2016). Climate-growth relationships along a black spruce toposequence in interior Alaska. *Arctic, Antarctic and Alpine Research* 48(4): 637-652.
- Winterstein, M., T.N. Hollingsworth, and C. Parker (2016). A range extension of *Carex sartwellii* in interior Alaska. *Canadian Field Naturalist* 130(3): 191-198.
- Sullivan, P.F., R.R. Pattison, A.H. Brownlee, and T.N. Hollingsworth (2016). Effect of tree-ring detrending method on apparent growth trends of black and white spruce in interior Alaska. *Environmental Research Letters* 11: 114007 doi:10.1088/1748-9326/11/11/114007
- Chapin III, F.S., A.J Conway, J. Johnstone, T.N. Hollingsworth, and J. Hollingsworth (2016). Absence of net long-term successional facilitation by alder in a boreal Alaska floodplain. *Ecology* DOI: 10.1002/ecy.1529
- Hewitt, R.E., T.N. Hollingsworth, D.L. Taylor, and F.S. Chapin III (2016). Fire-severity effects on plant-fungal interactions after a novel disturbance in the Arctic: implications for shrub and tree migration? *BCM Ecology* 16:25 DOI: 10.1186/s12898-016-0075-y
- Abbott, B.W., J.B. Jones, E.A.G. Schuur, F.S. Chapin III, W.B. Bowden, M.S. Bret-Harte, H.E. Epstein, M.D. Flannigan, T.K. Harms, T.N. Hollingsworth, M.C. Mack, A.D. McGuire, S.M. Natali, A.V. Rocha, S.E. Tank, M.R. Turetsky, J.E. Vonk, K.P. Wickland, and the Permafrost Carbon Network. (2016). Can increased biomass offset carbon release from permafrost region soils, streams and wildfire? An expert assessment. *Environmental Research Letters* 11(3): 034014

- Hewitt, R.E., A.P. Bennett, A.L. Breen, T.N. Hollingsworth, D.L. Taylor, F.S. Chapin III and T.S. Rupp (2015). Getting to the root of the matter: landscape implications of plant-fungal interactions for tree migration in Alaska. *Landscape Ecology* 31: 895-911.
- Churchill, A.C., M.R. Turetsky, A.D. McGuire, and T.N. Hollingsworth (2015). Response of plant community structure and ecosystem productivity to experimental drought and flooding in an Alaskan fen. *Canadian Journal of Forest Research* 45: 185-193 doi:10.1139/cjfr-2014-0100
- Taylor, D. L., T.N. Hollingsworth, J. McFarland, N. Lennon, C. Nusbaum, and R.W. Ruess. (2014). A first comprehensive census of fungi in soil reveals both hyperdiversity and fine-scale niche partitioning. *Ecological Monographs* 84(1): 3-20.
- Spellman, K.V., C.P.H. Mulder, and T.N. Hollingsworth (2014). Susceptibility of burned black spruce (*Picea mariana*) forests to non-native plant invasions in interior Alaska. *Biological Invasions* doi:10.1007/s10530-013-0633-6
- Hewitt, R.E., E. Bent, T.N. Hollingsworth, and D.L. Taylor (2013). Resprouting tundra shrubs facilitate resilience of ectomycorrhizal communities after fire. *Ecoscience* 20(3): 296-310.
- Hollingsworth, T.N., J.F. Johnstone, E.L. Bernhardt, and F.S. Chapin III (2013). Fire severity filters regeneration traits to shape community assembly in Alaska's boreal forest. *PLoS One* 8(2): e56033. doi:10.1371/journal.pone.0056033.
- Baird, R.A., D. Verbyla, and T.N. Hollingsworth (2012). Browning of the landscape of interior Alaska based on 1986-2009 Landsat sensor NDVI. *Canadian Journal of Forest Research* 42: 1371-1382.
- Thompson, J, A. Weik, F. Swanson, S. Carpenter, N. Fresco, T. Hollingsworth, T. Spies, and D. Foster (2012). Scenario studies as a synthetic and integrative research activity for LTER. *Bioscience* 62(4): 367-376.
- Ji, L., B.K. Wylie, D.R. Noss, B. Peterson, M.P. Waldrop, J.W. McFarland, J. Rover, and T.N. Hollingsworth (2012). Estimating aboveground biomass in interior Alaska with Landsat data and field measurements. *International Journal of Applied Earth Observation and Geoinformation* 18: 451-461.
- Mayor, J. R., E.A.G. Schuur, M.C. Mack, T.N. Hollingsworth, E. Baath (2012). Nitrogen stable isotope patterns in black spruce forests of central Alaska reflect a high dependency on ectomycorrhizal access to dissolved organic nitrogen. *Ecosystems* 15: 819-831.
- Wolken, J.M., T.N. Hollingsworth, T.S. Rupp, F.S. Chapin III, S. F. Trainor, et al. (2011). Evidence and implications of projected climate change on Alaska's forest ecosystems. *Ecosphere* 2(11): 124. doi:10.1890/ES11-00288.1.
- Johnson, K.D. J. Harden, A. D. McGuire, J.G. Bockheim, M. Clark, T.N. Hollingsworth, M.T. Jorgensen, E.S. Kane, M.C Mack, J. O'Donnell, C.L. Ping, E.A.G. Schuur, M.R. Turetsky, D.W. Valentine. (2011). Relation of soil carbon and soil forming factors in Alaska. *Geoderma* 167-168: 71-84. doi: 10.1016/j.geoderma.2011.10.006.
- Mack, M.C., M.S. Bret-Harte, T.N. Hollingsworth, R.R. Jandt, E.A.G. Schuur, G.R. Shaver, D.L. Verbyla. (2011). Climate warming and novel disturbance in arctic tundra: carbon and nitrogen emissions from a large wildfire and its consequences for ecosystem structure. *Nature* 45: 489-492.
- Noss, D.R., T.N. Hollingsworth, R.W. Ruess, and K. Kielland (2011). Development of *Alnus tenuifolia* stands on an Alaskan floodplain: patterns of recruitment, disease, and succession. *Journal of Ecology* 99: 621-633 doi: 10.1111/j.1365-2745.2010.01792.x.
- Bernhardt, E.L., T.N. Hollingsworth, and F.S. Chapin III (2011). Fire severity mediates climate-driven shifts in understory composition of black spruce stands of interior Alaska. *Journal of Vegetation Science* 22: 32-44.
- Hollingsworth, T.N., A.H. Lloyd, D.R. Noss, R.W. Ruess, B.A. Charlton, and K. Kielland (2010). Twenty-five years of vegetation change along a putative successional chronosequence on the Tanana River, Alaska. *Canadian Journal of Forest Research* 40: 1273-1287 doi:10.1139/X10-094.
- Turetsky, M.R., M.C. Mack, T.N. Hollingsworth, and J.W. Harden (2010). The role of mosses in ecosystem succession and function in Alaska's boreal forest. *Canadian Journal of Forest Research* 40: 1237-1264 doi: 10.1139/X10-072.
- Johnstone, J.F., F.S. Chapin III, T.N. Hollingsworth, M.C. Mack, V. Romanovsky, and M. Turetsky (2010). Fire and resilience cycles in Alaskan boreal forests: A conceptual synthesis. *Canadian Journal of Forest Research* 40: 1302-1312 doi: 10.1139/X10-061.

- Chapin III, F.S., A.D. McGuire, R.W. Ruess, T.N. Hollingsworth, M.C. Mack, J.F. Johnstone, E.S. Kasischke, E.S. Euskirchen, J.B. Jones, M.T. Jorgenson, K. Kielland, G.P. Kofinas, M.R. Turetsky, J. Yarie, A.H. Lloyd, and D.L. Taylor (2010). Resilience to climate change in Alaska's boreal forest. *Canadian Journal of Forest Research* 40: 1360-1370 doi: 10.1139/X10-074.
- Nossov, D.R., R.W. Ruess, T.N. Hollingsworth (2010). Climate Sensitivity of thinleaf alder on an interior Alaskan floodplain. *Ecoscience* 17(3): 312-320.
- Johnstone, J.F., T.N. Hollingsworth, F.S. Chapin III, M.C. Mack (2010). Changes in fire regime break the legacy lock on successional trajectories in Alaskan boreal forest. *Global Change Biology* doi: 10.1111/j.1365-2486.2009.02051.x.
- Hollingsworth, T.N., E.A.G. Schuur, F.S. Chapin III, and M.D. Walker (2008). Plant community composition as a predictor of regional soil carbon storage in the boreal black spruce ecosystem. *Ecosystems* 11(4): 629-642.
- Gould, W.A., G. González, A.T. Hudak, T.N. Hollingsworth, and Hollingsworth J. (2008). Forest structure and downed woody debris in boreal, temperate, and tropical forest fragments. *Ambio* 37(7-8): 577-587.
- González, G., W.A. Gould, A.T. Hudak, and T.N. Hollingsworth (2008). Decay of aspen (*Populus tremuloides* Michx.) wood in moist and dry boreal, temperate and tropical forest fragments *Ambio* 37(7-8): 588-597.
- Hollingsworth, T.N., M.D. Walker, F.S. Chapin III, and A. Parsons (2006). Scale-dependent environmental controls over species composition in Alaskan black spruce communities. *Canadian Journal of Forest Research* 36: 1781-1796.
- DeVan, M.R., J.F. Johnstone, M.C. Mack, T.N. Hollingsworth, and D.L. Taylor (submitted April 2021). Host identity affects the response of mycorrhizal fungal communities to increasing fire severity in Alaskan boreal forests. *Fungal Ecology*
- Hollingsworth, T.N., R.E. Hewitt, F.S. Chapin III, F.S., and M.D. Walker (submitted April 2020). The ghost of disturbance past: Legacy effects of wildfire on structure and composition of black spruce forests in boreal Alaska. *Ecosystems*
- Hollingsworth, T.N., D. Verbyla, and M.R. Turetsky (in prep). Is there evidence of an unprecedented climate-driven shift in coniferous vegetation in boreal Alaska? *Nature Climate Change*
- Breen, A.L., A. Bennett, R.E. Hewitt, T.N. Hollingsworth, H. Genet, E.S. Euskirchen, A.D. McGuire, and T.S. Rupp (in prep). Tundra fire and vegetation dynamics: simulating the effect of climate change on fire regimes in Arctic ecosystems. *Ecology Letters*
- Winterstein, M.A and T.N. Hollingsworth (in prep). Climate-induced drying lake margins in the Yukon Flats, Alaska: Newly exposed landscape for novel vegetation communities? *Environmental Research Letters*
- Houseman, B.H., T.N. Hollingsworth, R.W. Ruess, and D. Verbyla (in prep). Predicting post-fire Siberian alder distribution and associated nitrogen fixation inputs in upland interior Alaska. *Landscape Ecology*
- **Book Chapters-**
- Hollingsworth, T.N., R.E. Hewitt, and J.F. Johnstone. (2019). Chapter 4. Biological Drivers: Vegetation Composition Change in A. Robertson, E. Schroff, C. Markon, J. DeLapp, P. Burton, D. Reid, and V. Barber, editors. Drivers of Landscape Change in the Northwest Boreal Region of North America: Impacts on Natural Resources, Ecosystems, and Communities. University of Alaska Press, Fairbanks.
- Johnstone, J.F., X. Walker, and T.N. Hollingsworth. (2019). Chapter 2. Natural and Disturbance Drivers: Wildfires in A. Robertson, E. Schroff, C. Markon, J. DeLapp, P. Burton, D. Reid, and V. Barber, editors. Drivers of Landscape Change in the Northwest Boreal Region of North America: Impacts on Natural Resources, Ecosystems, and Communities. University of Alaska Press, Fairbanks.
- Peterson, D.L., J.M. Wolken, T.N. Hollingsworth, C.P. Giardina, J.S. Littell, L.A. Joyce, C.W. Swanston, S.D. Handler, L.E. Rustad, and S.G. McNulty. (2014). Chapter 6. Regional Highlights of Climate Change in D.L. Peterson, J.M. Vose, T. Patel-Weynand, editors, Advances in Global Change Research Volume 7: Climate Change and United States Forests. Springer, Dordrecht.
- Chapin, F.S. III, T.N. Hollingsworth, D.F. Murray, L.A. Viereck, and M.D. Walker. (2006). Chapter 6. Floristic Diversity and Distribution in Alaska's Boreal Forest in M. Oswald, F.S. Chapin III, editors. Alaska's Changing Boreal Forest. Oxford University Press, Oxford.

- **Technical Reports-**

- Hayward, G.D., S. Colt, M.L. McTeague, and T.N. Hollingsworth (eds) (2017) Climate change vulnerability assessment for the Chugach National Forest and the Kenai Peninsula. Gen. Tech. Rep. PNW-GTR-950. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 368 p.
- Maines, K.L., J.W. Harden, and T.N. Hollingsworth (2014). Soils, vegetation, and woody debris data from the 2001 Survey Line fire and a comparable unburned site. U.S. Geological Survey Open File Report 2014-1049. 36 p. <http://pubs.usgs.gov/of/2014/1049/> .
- Chapin, F.S. III, T.N. Hollingsworth, R.E. Hewitt. (2014) Fire effects of seedling establishment success across treeline: implications for future tree migration and flammability in a changing climate. *JFSP Research Project Reports*. Paper 82.
- Appendix 1: Regional summaries- Alaska (2014) in Vose, James M.; Peterson, David L.; Patel-Weynand, Toral, eds. Effects of climatic variability and change on forest ecosystems: a comprehensive science synthesis for the U.S. forest sector. Gen. Tech. Rep. PNW-GTR-870. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station: 205-242.
- Johnstone, J. F., T.N. Hollingsworth, and F.S. Chapin III (2008). A key for predicting postfire successional trajectories in black spruce stands of interior Alaska. Gen. Tech. Rep. PNW-GTR-767. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 37 p.
- Hollingsworth T.N. (2008). Exploring the Alaskan Black Spruce Ecosystem: Variability in Species Composition, Ecosystem Function, and Fire History. (2008). Proceedings of the Fourth International Workshop Conservation of Arctic Flora and Fauna (CAFF) Flora Group. CAFF Technical Report No. 15, September 2008.
- Walker, D.A., N.A. Auerbach, T.K. Nettleton, A. Gallant, and S.M. Murphy (1997). Arctic System Science Flux Study Data Report. Happy Valley Permanent Vegetation Plots: site factors, physical and chemical soil properties, plant species cover, photographs, soil descriptions and ordination. Tundra Ecosystems Analysis and Mapping Laboratory, University of Colorado.
- Baird, R.A., T.N. Hollingsworth, and D. Verbyla. (in prep). Classification and vegetation mapping of plant communities in the Bonanza Creek Experimental Forest. Gen. Tech. Rep. PNW-GTR.

- **Theses-**

- Hollingsworth, T.N (2004). Quantifying variability in the Alaskan black spruce ecosystem: Linking vegetation, carbon, and fire history. PhD thesis. University of Alaska Fairbanks, Fairbanks Alaska
- Nettleton, T.K (Jan. 2000). The role of soil amino acids in the structure and functioning of upland grasslands in Great Britain. M.Sc. thesis. Lancaster University, Lancaster, England

GRADUATE STUDENTS:

- Emilia Grzesik (MS)- coadvised with Roger Ruess. Emilia is investigating the plasticity of post-fire plant traits in determining the resiliency and resistant to climate induced changes in fire regime. (2018-2020)
- Robin Andrews (PhD)- committee member. Robin is interested in variation in micro and macroarthropods in relation to environmental gradients. (2017-present)
- Charlene Johnson (PhD)- committee member. Charlene is studying watershed and snow-melt dynamics in the Chugach Mountains, with a particular interest in shrub expansion in relation to changing climate (2018-present)
- E. Fleur Nicklen (PhD) committee member. Fleur is studying the climate variability effects on black and white spruce in three National Parks in interior Alaska. (2014-present)
- Mark Winterstein (MS)- coadvised with Donald (Skip) Walker. Mark is investigating vegetation succession following lake drying in the Yukon Flats, and linking the vegetation changes to post-drying moisture shifts and time since drying began. Finally, he would like to use satellite imagery to predict vegetation changes across the Yukon Flats. (2010-present).
- Ann Oleson (PhD)- committee member. Ann is interested linking soil carbon and hydrological processes to vegetation post-fire. (2009-present)
- Lindsey Parkison (MS)- committee member. Lindsey evaluated trends in berry production and pollinators along a fire severity gradient (2016-2019)

- Maija Weshmas (MA)- committee member. Maija looked at the prevalence of post-fire shifts from conifer to deciduous trees both historically and currently, from a regional perspective. (2015-2018)
- Helen Cold (MS)- committee member. Helen is linking social-ecological knowledge of climate change effects to biophysical mechanisms in the Yukon River drainage (2016-2018)
- Brian Houseman (MS)- coadvised with Roger Ruess. Brian is quantifying the post-fire variability of Siberian alder. He is linking the patterns of occurrence with soil N and modeling landscape-level distribution patterns and associated N-fixation rates. (2014-2017)
- Alexandria Wenniger (MS) committee member. Alex is investigating Hyemoptera assemblages associated with various post-fire successional trajectories. (2013-2017)
- Erin Julianus (MS)- coadvised with A. David McGuire. Erin linked vegetation patterns and fire history to moose browse, browse potential and availability in Kanuti National Wildlife Refuge. (2011-2016)
- Rebecca Hewitt (PhD)- coadvised with F.S. Chapin III. Becky investigated the ecosystem and plant community processes involved in post-fire treeline expansion. In particular, she studied the role of microbial communities in potential growth of treeline trees and shrubs. (2008-2014)
- Rebecca Baird (MS)- coadvised with David Verbyla. Becky created a vegetation classification and map for Bonanza Creek Experimental Forest and used that to look at stand/species level changes in productivity over a 30-year time period using Landsat remote sensing. (2007-2011)
- Dana Nossov (MS)- coadvised with Roger Ruess. Dana investigated the spatial and temporal patterns and processes associated with the population dynamics of alder along the Tanana River. (2006–2008)
- Emily Bernhardt (MS) - coadvised with F.S. Chapin III. Emily studied the effects of fire severity on the diversity and functional redundancy of communities following fire in black spruce ecosystem. (2005–2008)
- Katie Villiano (MS)- committee member. Katie looked at the potential invasiability of sites following fire as a function of age and severity (2005-2008).