ARCTIC LTER PUBLICATIONS – 1975 to June 2013

Student Theses

Doctoral Theses

1. Adams, H.E. (2010) Controls on bacterial productivity in arctic lakes and streams. Ecology and Evolutionary Biology, University of Michigan Ph. D., Ph.D. Thesis.

2. Boelman, N. (2004) Relating spectral vegetation indices to plant physiological and ecosystem processes at multiple spatial scales. Earth and Environmental Sciences, Columbia University, New York, NY, Ph.D. Thesis.

3. Buchanan, C. (1978) Arctic investigations of some factors that control the vertical distributions and swimming activities of zooplankton. University of New Hampshire, Durham, NH, Ph.D. Thesis.

4. Burkart, G. (2006) Energy flow in arctic lake food webs: the role of glacial history, fish predators, and benthic-pelagic linkages. Utah State University, Logan, UT, Ph.D. Thesis.

5. Butler, M.G. (1980) The population ecology of some arctic Alaskan Chironomidae. University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

6. Cherry, J. (2006) Arctic hydroclimatology. Columbia University, New York, NY, Ph.D. Thesis.

7. Cornwell, J.C. (1983) Geochemistry of Mn, Fe and P in an arctic lake. University of Alaska, Fairbanks, AK, Ph.D. Thesis.

8. Cuker, B.E. (1981) Control of epilithic community structure in an arctic lake by vertebrate predation and invertebrate grazing. North Carolina State University, Raleigh, NC, Ph.D. Thesis.

9. Dobberfuhl, D.R. (1999) Elemental stoichiometry in crustacean zooplankton: phylogenetic patterns, physiological mechanisms, and ecological consequences. Department of Biology, Arizona State University, Tempe, AZ, Ph.D. Thesis.

10. Dobkowski, J.A. (In progress) Mineral absorption effects on permafrost carbon. Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

11. Engman, J. (1994) Phylogeny and biogeography of the genus Heterocope sars 1863 (Copepoda:Calanoida): a molecular genetic, morphological, and distributional analysis. Biological Sciences, University of Cincinnati, Cincinnati, OH, Ph.D. Thesis.

12. Evans, B.I. (1986) Strategies and tactics of search behavior in Salmonid and Centrarchid planktivorous fish. University of Kansas, Lawrence, KS, Ph.D. Thesis.

13. Evans, M.A. (2007) Phytoplankton ecology of Arctic lakes. University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

14. Federle, T.W. (1981) The processes and control of the microbial colonization and decomposition of plant litter in an arctic lake. Department of Biological Sciences, University of Cincinnati, Cincinnati, OH, Ph.D. Thesis.

15. Ford, T.E. (1984) A study of dissolved and collooidal organic carbon in rivers and their contribution to benthic microbial metabolism. Bangor University, Bangor, UK, Ph.D. Thesis.

16. Gettel, G. (2006) Rates, importance, and controls of nitrogen fixation in oligotrophic Arctic lakes, Toolik, Alaska. Cornell Univeristy, Ithaca, NY, Ph.D. Thesis.

17. Hershey, A.E. (1983) Benthic community structure in an arctic lake: fish predation foraging strategies, and prey refugia. North Carolina State University, Raleigh, NC, Ph.D. Thesis.

18. Heskel, M.A. (2013) Environmental controls of foliar respiration in arctic tundra plants. Department of Ecology, Evolution and Environmental Biology, Columbia University, New York, NY, Ph.D. Thesis

19. Hobbie, S.E. (1995) The effects of increased temperature on Tundra plant community composition and the consequences for ecosystem processes. Integrative Biology, University of California Berkeley, Berkeley, CA, Ph.D. Thesis.

20. Johnson, D. (2008) How herbivores affect individual plant growth, community structure and decomposition in Alaskan tundra: implications for responses to climate change. University of Texas-Arlington, Arlington, TX, Ph.D. Thesis.

21. Johnson, C. (2009) Consumer-driven nutrient recycling in arctic Alaskan lakes: controls, importance for primary production, and influence on nutrient limitation. Utah State University, Logan, UT, Ph.D. Thesis.

22. Judd, K. (2004) Dissolved organic matter dynamics in an Arctic catchment. University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

23. Keller, K.A. (2006) Geochemistry of streams, soils, and permafrost and the geochemical effects of climate change in a continuous permafrost region, arctic Alaska, USA. University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

24. Kielland, K. (1989) Processes controlling nitrogen release and turnover in arctic tundra. University of Alaska, Fairbanks, AK, Ph.D. Thesis.

25. Parker, S.M. (2008) Effects of natural disturbance on benthic communities of Arctic headwater streams, North Slope, Alaska, U.S.A. Department of Biological Sciences, University of Alabama, Tuscaloosa, AL, Ph.D. Thesis.

26. Rantala, H.M. (2009) Glacial legacy effects on tundra stream processes and macroinvertebrate communities, North Slope, Alaska. Biological Sciences, University of Alabama, Tuscaloosa, AL, Ph.D. Thesis.

27. Shaman, J. (2003) Monitoring and Forecasting Land Surface Wetness, Mosquito Abundance and Mosquito-Borne Disease Transmission. Columbia University, New York, NY, Ph.D. Thesis.

28. Simpson, R. (2010) Soil organic matter and aggregate dynamics in an arctic ecosystem. Ecology Department, Colorado State University, Ph.D. Thesis.

29. Sweet, S. (In progress) Impacts of changing arctic seasonality on the phenology of graminoid vs. woody deciduous shrub dominated tundra. Department of Earth and Environmental Sciences, Columbia University, New York, NY, Ph.D. Thesis.

30. Valentine, D. (1991) Influence of topography on soil acidity and hydrogen ion budgets in an arctic landscape. Duke University, Durham, NC, Ph.D. Thesis.

31. Whalen, S.C. (1986) Pelagic nitrogen cycles in an arctic lake. University of Alaska, Fairbanks, AK, Ph.D. Thesis.

32. Yurista, P.M. (1997) Physiology and energy budgets of two cladocerans, Bythotrephas and Daphnia. University of Michigan, Ann Arbor, MI, Ph.D. Thesis.

Masters Theses

1. Alexander-Ozinskas, M. (2007) Controls on N accumulation and loss in Arctic tundra ecosystems. Brown University, Providence, RI, M.S. Thesis.

2. Arscott, D.B. (1997) Comparison of epilithic algal and bryophyte metabolism in an arctic tundra stream, Alaska. Water Resources Management, University of New Hampshire, Durham, NH, M.S. Thesis.

3. Barnett, B.A. (1994) Carbon and nitrogen isotope ratios of caribou tissues, vascular plants, and lichens from northern Alaska. Marine Sciences, University of Alaska, Fairbanks, AK, M.S. Thesis.

4. Bettez, N.D. (1996) Changes in abundance, species composition and controls within the microbial loop of a fertilized arctic lake. University of North Carolina, Greensboro, NC, M.S. Thesis.

5. Bixby, R.J. (1993) The paleolimnology of two arctic lakes: Regional and local changes in climate. Biological Sciences, Uniersity of Cincinnati, Cincinnati, OH, M.S. Thesis.

6. Burris, M. (2006) The life history, morphological, and behavioral changes of two Arctic daphnids to kairomone from the invertebrate predator *Heterocope septentrionalis*. University of North Carolina, Greensboro, NC, M.S. Thesis.

7. Cappelletti, C. (2006) Photosynthesis and respiration in an Arctic tundra river: Modification and application of the whole-stream metabolism method and the influence of physical, biological and chemical variables. University of Vermont, Burlington, VT, M.S. Thesis.

8. Chinn, C. (2001) Estimating microbial biomass in low-production ecosystems. Department of Biological Sciences, University of Northern Colorado, Greeley, CO, M.S. Thesis.

9. Cuker, B.E. (1978) Ecology of Hydra in an arctic Alaskan lake. University of Michigan, Ann Arbor, MI, M.S. Thesis.

10. Daniels, W. (2013) The impacts of nutrient enrichment and a thermokarst failure on epipelic algae in Arctic lakes of differing morphometry. Geological Sciences, Brown University, Providence, RI, M.S. Thesis.

11. Doles, J. (2000) A Survey of soil biota in the Arctic Tundra and their role in mediating terrestrial nutrient cycling. Department of Biological Sciences, University of Northern Colorado, Greeley, CO, M.S. Thesis.

12. Dzialowski, A. (2001) Range expansion and ecology of the exotic cladoceran Daphnia lumholtzi. University of Kansas, Lawrence, KS, M.A. Thesis.

13. Edwardson, K.J. (1997) Characterization of hyporheic influences on the hydrology and geochemistry in contrasting arctic streams. University of New Hampshire, Durham, NH, M.S. Thesis.

14. Evans, R. (1995) Chironomid fossil remains: a bioindicator for post-glacial fish migration into Toolik Lake, Alaska. Biological Sciences, University of Cincinnati, Cincinnati, OH, M.S. Thesis.

15. Fiebig, D.M. (1988) Riparian zone and streamwater chemistries and organic matter immobilization at the stream-bed interface. University of Wales, Bangor, UK, M.S. Thesis.

16. Galarowitz, T.L. (1994) Effects of slimy sculpin (*Cottus cognatus*) removal on sculpin and chironomid (Diptera: Chironomidae) populations in an arctic lake. University of Minnesota, Duluth, MN, M.S. Thesis.

17. Gartner, B.L. (1982) Controls over regeneration of tundra graminoids in a natural and a man-disturbed site in arctic Alaska. Univeristy of Alaska, Fairbanks, AK, M.S. Thesis.

18. Gettel, G. (1998) The effects of lake gromorphology, fish assemblages and species richness on food web structure in arctic Alaskan lakes. University of Minnesote, Duluth, MN, M.S. Thesis.

19. Gibeau, G.G. (1990) Epilithic algal response to fertilization and grazer activity in an arctic river. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

20. Golden, H.E. (1997) The trophic interactions of young-of-the-year Arctic grayling, *Thymallus arcticus*, in an Arctic tundra. University of Massachusetts, Amherst, MA, M.S. Thesis.

21. Goyke, A.P. (1990) Effects of fish predation on Chironomid (Diptera: Chironomidae) communities in Arctic lakes. University of Minnesota, Duluth, MN, M.S. Thesis.

22. Greenwald, M.J. (2007) Hyporheic exchange and biogeochemical processing in Arctic tundra streams. University of Vermont, Burlington, VT, M.S. Thesis.

23. Hanson, K.L. (1993) A comparison of slimy sculpin (*Cottus cognatus*) populations in arctic lakes with implications for the role of piscivorous predators. University of Minnesota, Duluth, MN, M.S. Thesis.

24. Harrold, K.H. (2013) Stratification Influences on instream chemistry and export within a beaded arctic stream. University of North Carolina, Chapel Hill, NC, M.S. Thesis.

25. Hershey, A.E. (1980) Chironomid community structure in an arctic lake: The role of a predatory chironomic. North Carolina State University, Raleigh, NC, M.S. Thesis.

26. Hiltner, A.L. (1985) Response of two black fly species (Diptera:Simuliidae) to phosphorum enrichment of an arctic tundra stream. University of Wisconsin-Madison, Madison, WI, M.S. Thesis.

27. Hinterleitner-Anderson, D.L. (1990) The effects of river fertilization on mayfly drift patterns and population density in an arctic ecosystem. University of Minnesota, Duluth, MN, M.S. Thesis.

28. Holland, V. (2006) Infection of slimy sculpin (*Cottus congatus*) by the Cestode *Schistocephalus* in the presence and absence of Lake Trout (*Salvelinus namaycush*) in Arctic Alaskan lakes. University of North Carolina, Greensboro, NC, M.S. Thesis.

29. Hullar, M.A.J. (1986) The effects of nutrient enrichment and light regimes on the epilithic microbiota of an oligotrophic arctic river. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

30. Johnson, C. (2004) Coexistence and vertical distribution of two copepods *Cyclops scutifer* and *Diaptomus pribilofensis* in an oligotrophic Arctic lake. University of North Carolina, Greensboro, NC, M.S. Thesis.

31. Johnston, C.J. (1986) Microbially mediated Mn (II) oxidation in an oligotrophic arctic lake. University of Alaska, Fairbanks, AK, M.S. Thesis.

32. Jorgenson, M.T. (1986) Biophysical factors influencing the geographic variability of soil heat flux near Toolik Lake, Alaska : implications for terrain sensitivity. University of Alaska, Fairbanks, M.S. Thesis.

33. Judd, K. (1998) Production and transport of dissolved carbon and nutrients in arctic tundra microcosms: The role of vegetation and water flow. University of Michigan, Ann Arbor, MI, M.S. Thesis.

34. Klingensmith, K.M. (1981) Sediment nitrification, denitrification, and nitrous oxide production in an arctic lake. University of Alaska, Fairbanks, AK, M.S. Thesis.

35. LaRouche, J. (2008) Environmental influences on the genetic diversity of bacterial communities in arctic streams. University of Vermont, Burlington, VT, M.S. Thesis.

36. Longo, W.M. (2013) Novel tri-unsaturated alkenones in arctic lakes: Implications for paleotemperature reconstruction. Geological Sciences, Brown University, Providence, RI, M.S. Thesis.

37. Luecke, C. (1981) The effect of Heterocope predation on arctic pond zooplankton communities. Department of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS, M.S. Thesis.

38. MacKinnon, P. (2006) Landscape effects on growth of age-0 Arctic grayling in tundra streams. Utah State University, Logan, UT, M.S. Thesis.

39. McKinley, V. (1981) Effect of hydrocarbons and pH on litter decomposition and primary production in an arctic lake. Department of Biological Sciences, University of Cincinnati, Cincinnati, OH, M.S. Thesis.

40. Merck, M.F. (2011) Variability of water storage and instream temperature in beaded Arctic streams. Civil and Environmental Engineering, Utah State University, M.S. Thesis.

41. Merrick, G.E. (1989) Lake trout (*Salvelinus namaycush*) and benthic community ecology in an arctic ecosystem. University of Minnesota, Duluth, MN, M.S. Thesis.

42. Moulton, C. (2009) How soil nutrient availability affects plant sexual reproduction and seedling recruitment in Alaskan dry heath tundra: Implications for response to climate change. University of Texas, Arlington, TX, M.S. Thesis.

43. Naber, A.C. (1996) The effects of simulated herbivory on Arctic woody shrubs: a test of a resource allocation hypothesis in response to herbivory. University of Toronto, Toronto, Canada, M.S. Thesis.

44. Parker, S.M. (2004) Effects of natural disturbance on arctic stream communities. Ecology and Environmental Science, University of Maine, Orono, ME, M.S. Thesis.

45. Parsons-Field, A.B. (2008) Winter conditions and spring convection in Toolik Lake, Alaska. University of California at Santa Barbara, Santa Barbara, CA, M.S. Thesis.

46. Partusch-Talley, A. (1994) Microfaunal response to fertilization of an arctic tundra river. University of North Carolina, Greensboro, NC, M.S. Thesis.

47. Perry, W.L. (1993) The response of *Pisidium casertanum* and *Sphaerium nitidum* to nutrient enrichment of divided arctic lake. Biological Sciences, University of Cincinnati, Cincinnati, OH, M.S. Thesis.

48. Repasky, R.D. (1991) The development of the epilithic community in an arctic lake: responses to antibiotics and nutrient enrichment. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

49. Rich, M.E. (2012) Arctic arthropod communities in habitats of differing shrub abundance. Department of Biology, University of Texas at Arlington, M.S. Thesis.

50. Ries, R. (1988) Foraging behavior of arctic grayling (*Thymallus arcticus*) in a tundra stream. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

51. Schmidt, D.R. (1980) The planktivorous feeding ecology of arctic grayling (*Thymallus arcticus*). University of Kansas, Lawrence, KS, M.S. Thesis.

52. Schneider, J.R. (1991) The effects of nutrient enrichment on the growth and morphology of mosses growing in an arctic lake. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

53. Skvorc, P. (1980) Toxic effects of Prudhoe Bay crude oil on arctic freshwater zooplankton. University of Kansas, Lawrence, KS, M.S. Thesis.

54. Sommer, M.E. (1979) Role of zooplankton grazers in determining composition and productivity of seston in arctic lakes and ponds. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

55. Spatt, P.D. (1978) Seasonal variation of growth conditions in a natural and dust impacted Sphagnum (Sphagnaceae) community in northern Alaska. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

56. Stout, J.R. (1986) Macroinvertebrate drift and community composition in an arctic and subarctic stream in Alaska. Department of Biological Sciences, University of Cincinnati, Cincinnati, OH, M.S. Thesis.

57. Weiss, M. (2003) The Contribution and Environmental Control of Nitrogen Fixation by Lichens in Upland Arctic Tundra. University of Minnesota, Minneapolis, MN, M.S. Thesis.

58. Wheeler, J.R. (1994) Factors affecting black fly abundance and distribution in an arctic stream. University of Minnesota, Duluth, MN, M.S. Thesis.

59. Yeakel, D. (1978) Primary production of epilithic periphyton in a deep arctic lake. University of Cincinnati, Cincinnati, OH, M.S. Thesis.

60. Yelen, L. (2008) Microbial communities in soils. University of Michigan, Ann Arbor, MI, M.S. Thesis.

61. Ziemann, P.J. (1986) Energetics of Arctic Alaskan Fishes: Carbon Isotope Evidence. Marine Science and Limnology, University of Alaska, Fairbanks, AK, M.S. Thesis.

Senior Undergraduate Theses

1. Beveridge, L. (2013) Scaling from leaf to canopy: to what extent does scale affect the photosynthetic light response curve and resulting measures of photosynthesis? School of Geosciences, University of Edinburgh, Edinburgh, UK, Senior Honors Thesis.

2. Bitterman, D. (2010) Early season respiration in *Betula nana* and *Eriophorium vaginatum*, two important tundra plant species. Department of Ecology, Evolution and Environmental Biology, Columbia University, Senior Thesis with Honors.

3. Carroll, J. (1998) Controls over bryophyte diversity in Alaskan Arctic tundra. Department of Ecology, Evolution and Organismal Biology, Tulane University, New Orleans, LA, Senior Honors Thesis.

4. Formica, A. (2013) Quantifying the physiology of structurally complex arctic vegetation and implications for carbon cycling in a shrubbier tundra. Department of Earth and Environmental Sciences, Columbia University, Senior Thesis with Honors.

5. Gersony, J. (In progress) Changes in arctic vegetation and associated changes in resources for herbivorous arthropods. Department of Ecology, Evolutionary and Environmental Biology, Columbia University, New York, NY, Senior Thesis.

6. Gibson, R. (In progress) Analyzing spectral signatures as rapid indicators of leaf biochemistry in plants of the Arctic tundra. Department of Ecology, Evolutionary and Environmental Biology, Columbia University, New York, NY, Senior Thesis.

7. Gratton, Z. (2013) Interactions between canopy structure and leaf trait distribution in arctic shrub communities. School of Geosciences, University of Edinburgh, Edinburgh, UK, Senior Honors Thesis.

8. Greaves, H. (2009) The Role of Leaf Carbon Exchange in Arctic Shrub Expansion. Department of Ecology, Evolution and Environmental Biology, Columbia University, New York, NY, Senior Thesis.

9. Harris-Coble, L. (2012) Arthropod availability for migratory songbirds in Alaskan tundra: Timing of abundance of aquatic and terrestrial sources. Department of Ecology, Evolutionary and Environmental Biology, Columbia University, Senior Thesis.

10. Harrison, J. (1995) Young-of-the-year arctic grayling (*Thymallus arcticus*) metabolism: Scaling with size, temperature and flow. Brown University, Providence, RI, Senior Honors Thesis.

11. Pendergast, G. (2011) Temperature response of leaf respiration influenced by emerging canopy dynamics in arctic shrub species. Department of Ecology, Evolution and Environmental Biology, Columbia University, Senior Thesis.

12. Wright, A. (1996) The effect of whole-river fertilization on production of young-of-the-year arctic grayling in two arctic tundra streams. Hampshire College, Amherst, MA, Senior Thesis.