

VITAE

BIOGRAPHY

William C. Daniels was born March 19, 1985 in Shenandoah, IA to parents Gwen and John Daniels. He graduated from Northfield High School in 2003 and entered Lawrence University for undergraduate study, focusing his research on aquatic ecology. Will spent a semester during college in Woods Hole, MA, participating in the Semester of Environmental Science at the Marine Biological Laboratory. He graduated from Lawrence with a Bachelor of Arts in Biology in 2007, then, from 2007-2008, he worked as a naturalist and dogsled musher at the remote YMCA Camp Menogyn. Following this, Will worked as a research technician at the St. Croix Watershed Laboratory, assisting in both field campaigns and laboratory analyses for paleolimnology research projects. In 2009, Will moved to Woods Hole, MA to work at the MBL as a teaching instructor for the Semester of Environmental Science during fall semesters and a research assistant on a variety of projects in the remaining seasons. He matriculated at Brown University in the fall of 2011 for graduate school in Geological Sciences, and received the degree of Doctor of Philosophy in May, 2017. He is currently a postdoc researcher at the University of Massachusetts Amherst, continuing his research on Arctic climate change, Quaternary geology, and limnology.

EDUCATION

BROWN UNIVERSITY & MARINE BIOLOGICAL LABORATORY

2017 Ph.D. Geologic Science (Paleoclimate, ecology, organic geochemistry). Thesis: Climatic and ecological change in Arctic Alaska over the last 32,000 years inferred from lacustrine records and experiments

2013 M.Sc. Geological Science. Thesis: Benthic community metabolism in deep and shallow arctic lakes during 13 years of whole-lake fertilization

IOWA LAKES LABORATORY, OKOBOJI, IA

2012 Ecology and Systematics of Diatoms

LAWRENCE UNIVERSITY, APPLETON, WI

2007 B.A. Biology. Magna cum laude. Senior thesis: *Dreissena polymorpha* and suspended sediment effects on the lower food web in Green Bay, Lake Michigan and Lake Winnebago, Wisconsin: A modeling approach

MARINE BIOLOGICAL LABORATORY, WOODS HOLE, MA

2006 Semester of Environmental Science

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MASSACHUSETTS AMHERST

2017-Present Postdoc researcher, Department of Geological Sciences

BROWN UNIVERSITY, PROVIDENCE, RI & MBL, WOODS HOLE, MA

2011-2017 PhD candidate, Department of Earth, Environmental and Planetary Sciences

ECOSYSTEMS CENTER, MARINE BIOLOGICAL LABORATORY, WOODS HOLE, MA

2009-2011 Research and teaching assistant, Ecosystems Center

ST. CROIX WATERSHED RESEARCH STATION, MARINE ON ST. CROIX, MN

2008-2009 Lab technician II

YMCA CAMP MENOGYN, GRAND MARAIS, MN

2007-2008 Naturalist and dogsled musher

LAWRENCE UNIVERSITY, APPLETON, WI

2005-2007 Laboratory, field, and classroom assistant

PUBLICATIONS

W.C. Daniels, Y. Huang, J.M. Russell, A.E. Giblin (In review). Effect of continuous light on leaf wax isotope ratios in *Betula nana* and *Eriophorum vaginatum*: Implication for Arctic paleoclimate reconstructions. *Organic Geochemistry*.

W.C. Daniels, J.M. Russell, A.E. Giblin, J.M. Welker, E.S. Klein, Y.Huang (2017). Hydrogen isotope fractionation in leaf waxes in the Alaskan Arctic tundra. *Geochimica et Cosmochimica Acta*. DOI 10.1016/j.gca.2017.06.028.

W.C. Daniels, P.M. Novis, M.B. Edlund (2016). The valid transfer of *Cyclotella bodanica* var. *intermedia* to *Lindavia* (Bacillariophyceae). *Notulae algarum* 14. ISSN 2009-8987.

W.C. Daniels, A.E. Giblin, G.W. Kling (2015). Benthic community metabolism in deep and shallow arctic lakes during 13 years of whole-lake fertilization. *Limnology and Oceanography*. 60(5): 1604-1618.

W.C. Daniels (2012). *Cyclotella bodanica*. In *Diatoms of the United States*.
http://westerndiatoms.colorado.edu/taxa/species/cyclotella_bodanica_intermedia

B.T. De Stasio, M. B. Schrimpf, A. E. Beranek, W. C. Daniels, E. Hoyer (2010). *Dreissenid* driving tests: going the “wrong” way in Green Bay, Lake Michigan? *Verh. Intern. Verein. Limnol.* 30(10): 1540-1544.

B.T. De Stasio, M. B. Schrimpf, A. E. Beranek, W. C. Daniels (2008). Increased Chlorophyll a, phytoplankton abundance, and cyanobacteria occurrence following invasion of Green Bay, Lake Michigan by *dreissenid* mussels. *Aquatic invasions* 3(1): 21-27.

ORAL PRESENTATIONS

Lacustrine biomarker reconstruction of Arctic climate before, during and after the mid-Pliocene warm period. Northeast GSA, Burlington, VT. 2018.

Mashapaug Pond: A Paleolimnological story of people and pollution. University of Massachusetts Amherst professional geology seminar. 2017.

Western Arctic temperature sensitivity varies under different mean states. AGU Fall Meeting, San Francisco, CA. 2017.

Western Arctic temperature sensitivity varies under different mean states. AGU Fall Meeting, San Francisco, CA. 2017.

Paleoclimate and Paleolimnology records from Lake E5, Arctic Alaska. Toolik LTER annual meeting, Woods Hole, MA. 2017

Changing primary production in Arctic lakes at seasonal to millennial time scales. ASLO All-Science Meeting, Granada, Spain, 2015

POSTER PRESENTATIONS

W.C. Daniels, J.M. Russell, A.E. Giblin, W.M. Longo, C. Morrill, P. Holland-Stergar, R. Rose, Y. Huang. Paleolimnologic and modeling perspectives on the physical and ecological sensitivity of Arctic tundra lakes to temperature change. AGU Fall Meeting, 2016

W.C. Daniels, J.M. Russell, W.M. Longo, P. Holland-Stergar, A.E. Giblin, C. Morrill, Y. Huang. Deglacial Warming and Wetting of Northern Alaska. AGU Fall Meeting, 2015

W.M. Longo, J. Crowther, W.C. Daniels, J.M. Russell, A.E. Giblin, C. Morrill, X. Zhang, X. Wang, Y. Huang. Seasonally distinct reconstructions of Northern Alaskan temperature variability since the Last Glacial Maximum. AGU Fall Meeting, 2015

W.C. Daniels, J.M. Russell, Y. Huang, A.E. Giblin. Leaf wax hydrogen isotopes record summer temperature in Arctic lake sediments. AGU annual meeting, 2013

W.C. Daniels. and Arctic LTER Lakes Group. Analyzing plankton communities in Arctic lakes using flow cytometry. Arctic LTER site review, 2013

W.C. Daniels, A.E. Giblin, G.W. Kling, C. Luecke. Low-level nitrogen and phosphorus addition drives hypolimnetic oxygen drawdown in deep arctic lakes. LTER All Scientist Meeting, 2012

B. Moraska Lafrancois, B. Karns, W. Miller, B. Schuetz, W.C. Daniels, E. Peterson. Nitrogen patterns and sources in an upper Mississippi River tributary: a stable isotope approach. North American Benthological Society Meeting, 2009

TEACHING EXPERIENCE AND SYNERGISTIC ACTIVITIES

Reviewer for: *Phytotaxa*, *Geochimica et Cosmochimica Acta*, *Geophysical Research Letters*, *Organic Geochemistry*, *PlosONE*, *NSF-EAR*

Undergraduate Advising and Senior Thesis Reader: Kayley Donze (UMass 2018), Kurt Lindberg (UMass 2018), Sophia Rudin (Brown 2017), Jasmine McAdams (Brown 2016), Rebecca Rose (Brown 2016), Allison Cluett (Brown 2016), Patrick Holland (Brown 2015)

2018 Neotoma biomarker database development team, and database coordinator

2018 Science Fair Judge: Westfield High School, Westfield, MA.

2016 Session chair and convener, American Geophysical Union Fall Meeting 2016: "Water Isotope Systematics: Improving Modern and Paleoclimate Interpretations"

2016 Guest science lecturer: Urban Pond Procession Full Circle Film Series

2015-2016 Teaching volunteer: Kaktovik Oceanography Program, Kaktovik, Alaska.

2015-2017 Guest science lecturer: Brown University Science Center. "The care and keeping of axolotls".

2013-2015 Brown University DEEPS graduate liaison to the Sheridan Teaching Center.

2013-2016 Water quality monitoring volunteer coordinator: RI Watershed Extension.

2012-2017 Science Fair Judge: Lawrence Middle School, Falmouth, MA.

2012 Teaching assistant; Brown University: 1) *Environmental Science in a Changing World* (Prof: Stephen Porder), 2) *Climate and Climate Change* (Prof: Amanda Lynch and Leah VanWey), 3) *Limnology* (Prof: James Russell), 4) *Oceanography* (Prof: Steve Clemens)

2011-2017 Elementary and Middle school science volunteer: Varten Gregorian Elementary School, Providence, RI and Marshfield Middle School, MA, The Common School, Amherst, MA

2011 Geosciences graduate field trip director: Brown University, Providence, RI.

2011 Research volunteer: Palmer Antarctic LTER.

2009-2010 Teaching assistant and undergraduate project co-advisor; Semester of Environmental Science at MBL: Woods Hole, MA.

2007-2008 Naturalist lecturer, dogsled musher, and activities coordinator: YMCA Camp Menogyn, Minnesota.

FIELD EXPERIENCE

2017 Research cruise, R/V Blue Heron, Great Lakes. UNOLS Chief Scientist Training Program.

2010-2015 Limnologic field sampling, including sediment coring, of remote Arctic lakes, streams, and tundra (MBL, Brown), PIs: Anne Giblin, James Russell, Yongsong Huang

2011 Shipboard volunteer (2 month cruise), R/V Gould, Western Antarctic Peninsula. PI: Hugh Ducklow, MBL

2010 Groundwater and estuarine sampling, Cape Cod, MA. PI: Ken Foreman, MBL

2008-2009 Sediment coring in Lake Michigan (R/V Laurentian, 3 day cruise); lake coring, Michigan; monthly stream monitoring, Minnesota; bog water sampling (DOC, mercury, sulfate), Minnesota. PIs: Dan Engstrom, Mark Edlund, James Ahlmendinger, St. Croix Watershed Research Station

2005-2006 Weekly limnological sampling of Lake Winnebago and L. Michigan, WI (Lawrence University PI: Bart DeStasio)

PROFESSIONAL AFFILIATIONS

Association for the Sciences of Limnology and Oceanography, Geological Society of America, American Geophysical Union

AWARDS AND SERVICE

2014 Graduate fellowship, Institute at Brown for the Study of Environment and Society

2014 Graduate research grant, Geologic Society of America,

2012 Honorable Mention, NSF Graduate Research Fellowship Program

2012 Antarctic Service Medal, United States Antarctic program and National Science Foundation

2007 Howard and Helen Russell Award for Excellence in Biological Research Lawrence University

SKILLS AND TRAINING

2018 LacCore Training Program in Lake Drilling Coordination and Data Management

2017 University-National Oceanographic Laboratory System (UNOLS) Chief Scientist Training Program

2012 Ecology and Systematics of Diatoms, Iowa Lakeside Laboratory

2006 Recreational SCUBA certification