Amber C. Churchill
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Department of Ecology and Evolutionary Biology
University of Colorado
Boulder, CO

Education

Ph.D Ecology and Evolutionary Biology; GPA 4.0 — Expected Spring 2016
University of Colorado, Department of Ecology and Evolutionary Biology, Boulder, CO
Adviser: Dr. William Bowman

M.S. Biology; GPA 4.0 — Fall 2011
University of Alaska Fairbanks, Institute of Arctic Biology, Fairbanks AK
Advisers: Dr. Dave McGuire, Dr. Merritt Turetsky

B.S. Biology Departmental Honors, B.A. Environmental Studies ; GPA 3.59 — Spring 2008
Honors Program, *Stonehill College, North Easton MA*

Research Experience

Research Assistant*: Mountain Research Station, University of Colorado Boulder, Boulder, CO* 2012- present
Research Assistant: *Rocky Mountain National Park, University of Colorado Boulder, Boulder, CO* Fall 2011
Principal Investigator: *Center for Global Change, University of Alaska Fairbanks, Fairbanks, AK* 2010- 2011
Research Assistant: *Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, AK* 2009 - 2011
Field Technician: *PeatFire Research Group, Meanook Research Station: Alberta, Canada* Fall 2008
Research Technician: *Alaskan Peatland Experiment at the University of Alaska Fairbanks* Summer 2008
Visiting Undergraduate Intern: *Holbrook Lab, Harvard University, Cambridge, MA* Spring 2008
Harvard Forest REU Program in Ecology: *Harvard Forest of Harvard University, Petersham, MA* Summer 2007
Undergraduate Research Assistant (SURE): *Stonehill College, North Easton, MA* Summer 2006

Teaching/Communication Experience

Co-Graduate Instructor Science Writing Seminar, *University of Colorado Boulder* Spring 2014
Teaching Assistant Principles of Ecology, *University of Colorado Boulder* Spring 2014
Teaching Assistant Plant Ecology Evolution and Development, *University of Colorado Boulder* Fall 2013
GK-12 Fellow, Project EXTREMES: *CIRES, University of Colorado Boulder* 2012- 2013
Teaching Assistant Fundamentals of Biology (BI 115): *UAF, Fairbanks, AK* Fall 2010
Teaching Assistant Biological Principles II: *Stonehill College, North Easton, MA* Spring 2008
Assistant Biological Principles Laboratory Instructor: *Stonehill College, North Easton, MA* 2007- 2008
Teaching Assistant Gen. Chemistry and Organic Chemistry: *Stonehill College, North Easton, MA* Fall 2005-2006

Grants Received

UGGS Student group Outreach grant ($750); University of Colorado Boulder (2014), CO PI Miranda Redmond
Beverly Sears Grant ($1000); Graduate School, University of Colorado Boulder (2014-2015)
UROP Team Grant ($2,400); Undergraduate Research Opportunities Program, University of Colorado Boulder with Dr. Bowman and Teal Potter (Fall 2013-Spring 2014)
George M. Wright Climate Change Youth Initiative Fellowship ($19,993); National Park Service (2013-2015)
EBIO Research Grant ($2000); EBIO Department, University of Colorado Boulder (2013-2014)
UW NPS Small Grant ($4290); University of Wyoming National Park Service Small Grant, CO PI Dr. Bowman (2013-2014)
UROP Individual Grants ($4,800); Undergraduate Research Opportunities Program, University of Colorado Boulder with Colin Luben, George Libby and Dr. Bowman (2013)
UROP Team Grant ($2,400); Undergraduate Research Opportunities Program, University of Colorado Boulder with Dr. Bowman and Teal Potter (2013)
BURST Grant ($2,500); Biological Science Research Skills and Training, University of Colorado Boulder with Dr. Bowman and Drew Meyers (2013)
John Marr Grant ($600); John Marr Memorial Ecology Fund (2013-2014)

Beverly Sears Bigelow Named Grant ($2000); Graduate School, University of Colorado Boulder (2013-2014)
UROP Team Grant ($2,400); Undergraduate Research Opportunities Program, University of Colorado Boulder with Dr. Bowman (2012)
EBIO Research Grant ($1,500); EBIO Department, University of Colorado Boulder (2012-2013)
GK-12 Fellowship ($45,000); Project EXTREMES, University of Colorado Boulder (2012-2013)
CESU Grant ($19,425); National Park Service, CO PI Dr. Bowman (2012-2014)
John Marr Grant ($500); John Marr Memorial Ecology Fund (2012-2013)
BURST Grant ($2,500); Biological Science Research Skills and Training, University of Colorado Boulder with Dr. Bowman and Matthew Ribarich (2012)
UROP Team Grant ($2,400); Undergraduate Research Opportunities Program, University of Colorado Boulder with Dr. Bowman (2012)
Beverly Sears Grant ($1,000); Graduate School, University of Colorado Boulder (2012-2013)
Director Grant for Student Travel ($1,000); Institute of Arctic Biology (2010)
Research Grant ($3,728); Center for Global Change Student Research Grant Competition at UAF (2010-2011)
Travel Grant ($1,800); PeatNet travel aid for presenters: 2nd Intern. Symp. on Carbon in Peatlands (2009)
Student Travel Grant ($400); Pteriological Section of the Botanical Society of America (2008)

Peer Reviewed Publications

Churchill, A.C., McGuire, A.D., Hollingsworth, T.N., & Turetsky, M.R. *In Prep for Biogeochemistry*. The influence of thermokarst on plant community structure and primary production in Alaskan boreal peatlands.

Ladwig, L. M., Ratajczak, Z. Hafich, K., Ocheltree, T., **Churchill, A. C.**, Fuss, C. B., Hadley S. F., Kazanski, C. E., Muñoz, J. D., Petrie, M., Reinmann, A. B., Smith, J. G. *In prep for Ecology.* Beyond arctic and alpine: the influence of winter climate on temperate ecosystems.

Churchill, A.C., McGuire, A.D., Hollingsworth, T.N., & Turetsky, M.R. *In Review at Can. J. For. Res.*. Response of vegetation structure and primary productivity to experimental drought and flooding in an Alaskan fen.

Waldrop, M.P., Harden, J.W., Turetsky, M.R., Petersen, D.G., McGuire, A.D., Briones, M.J.I., **Churchill, A.C.**, Doctor, D.H. & Pruett, L.E. 2012. Bacterial and enchytraeid abundance accelerate soil carbon turnover along a lowland vegetation gradient in interior Alaska. *Soil Biology and Biochemistry*, 50: 188-198.

Theses, reports, contributions

Love Stowell, S.M., **Churchill, A.C.**, Hund, A.K., Kelsey, K.C., Redmond, M.D, Seiter S., Barger, N.N. *submitted to Science Education Forum*. Transforming graduate training in STEM education.

Beers, A.T., Potter, T.S., **Churchill, A.C.**, Faist, A.M., Filkins, H.R., Golden, E.M., Hicks, J.J., Barger, N.N. Advocating for science writing cooperatives in graduate programs. *Bulletin of ESA*, 94(3): 245-246.

Churchill A.C., Bowman W.D., Visty J., Bobowski B. (2012) Review of research conducted in Rocky Mountain National Park of CO, USA and the Tatra National Parks of Poland and Slovakia. 1–59.

Churchill, A.C. 2011. The response of plant community structure and productivity to changes in hydrology in Alaskan boreal peatlands. MSc Thesis. Department of Biology, University of Alaska Fairbanks.

Churchill, A.C. 2007. A site for sori: consequences for fertile/sterile frond dimorphism in ferns. Undergraduate Honors Thesis. Department of Biology, Stonehill College.

Conferences and Presentations

"Winter ecology: the surprising influence of winter climate on temperate ecosystem structure and function"
Ecological Society of America; Minneapolis, MN

Poster Co- author August 2013

"Identifying alternative indicators for the detection of abrupt transitions in ecosystems: multivariate analyses and cross-site comparisons"
Morrea LTER site review
Poster Co-author June 2013

"Ambient nitrogen deposition gradients in the Rocky Mountains and the effect on alpine moist meadow ecosystems"
American Geophysical Union Fall Meeting 2012; San Francisco, CA
Poster Presentation Fall 2012

" Review of research conducted in Rocky Mountain National Park of CO, USA and the Tatra National Parks of Poland and Slovakia"
Rocky Mountain National Park Research Symposium; Estes Park, CO
Oral Presentation Spring 2012

"The influence of thermokarst on plant community structure and ecosystem function in Alaskan boreal peatlands"
Guild of Rocky Mountain Ecologists and Evolutionary Biologists Annual Meeting; Mountain Research Station, CO
Oral Presentation Fall 2011

"Vegetation community patterns and functions within Alaskan boreal peatlands responding to climate change"
AKCFW Research Unit, Annual Research Review: Fairbanks, AK Spring 2011
Oral Presentation

Biology Graduate Student Association Symposium; *IAB University of Alaska Fairbanks*
Oral presentation Spring 2011

"Response of vegetation structure and function to experimental drought and flooding in an Alaskan fen"
American Geophysical Union Fall Meeting; San Francisco, CA Fall 2010
Poster Presentation

"Responses of primary productivity and annual biomass in Alaskan boreal peatlands to changing hydrology and permafrost"
Ecological Society of America Annual Meeting; Pittsburgh, PA Summer 2010
Poster Presentation

"Plant physiological and environmental controls on primary production in a thermokarsting peatland in boreal Alaska."
Biology Graduate Student Association Symposium; *IAB University of Alaska Fairbanks* Spring 2010
Oral presentation

"Comparing responses of primary productivity within the effects of climate change between an Alaskan boreal bog and fen."
AKCFW Research Unit, Annual Research Review: Fairbanks, AK Spring 2010
Poster presentation

"Plant physiological and environmental controls on primary production in Alaskan peatlands"
Second International Symposium on Carbon in Peatlands: Prague, Czech Republic Fall 2009
Poster presentation

"A site for sori: consequences of fertile/sterile leaf dimorphism in ferns"

Botanical Society of America Botany 2008 Conference: Vancouver, Canada Summer 2008
Oral presentation

"**Physiological and morphological tradeoffs along fern fertile/sterile dimorphism gradient"**
Eastern New England Biological Conference: Colby-Sawyer, New London, NH Spring 2008
Oral presentation

"Phenotypic responses of *Armillaria gallica* grown on gallic acid, a phenolic compound present in trees"
Eastern New England Biological Conference: Suffolk University, Boston, MA Spring 2007
Oral presentation

"A linkage disequilibrium within the IGS-1 region of *Armillaria gallica"*
Eastern New England Biological Conference: Suffolk University, Boston, MA Spring 2007
Oral presentation

"Phenotypic variation in *Armillaria gallica* exposed to different concentrations of gallic acid and sucrose, NaCl or KCl as osmotic controls"
Environmental Research Symposium: Bridgewater State College, Bridgewater, MA Fall 2006
Poster presentation

"The response of mycelial, spore and rhizomorph cell lines of *Armillaria gallica* to the presence of gallic acid"
Eastern New England Biological Conference: Simmons College, Boston, MA Spring 2006
Poster presentation

Undergraduate students mentored

University of Colorado

Matthew Bitters: Field technician summer 2012
Matthew Ribarich: BURST fellow summer 2012, Senior Field Technician summer 2013
Drew Meyers: UROP fellow summer 2012, Volunteer fall 2012, BURST fellow summer 2013
Adam Hallin: UROP fellow summer 2012
Aristo Cauwels: Volunteer summer 2012; UROP fellow fall 2012; Volunteer spring 2013
Teresa Herrera: Volunteer summer 2012; UROP fellow fall 2012; Volunteer spring 2013
George Libby: Volunteer spring 2013
Michael Mann: Volunteer spring 2013
Maggie Vest: Volunteer spring 2013
Megan Schmauder: Volunteer Fall 2013, Spring 2014
Max Owens: UROP fellow Spring 2014
Allie James: Volunteer Spring 2014

Other schools

Grant Austin: REU student summer 2009- Illinois Institute of Technology
Chris Dorich: REU student summer 2010, 2011- University of New Hampshire
Matthew Smith: Undergraduate laboratory technician fall 2010- University of Alaska Fairbanks
Beth Brown: REU student summer 2011- University of Chicago
Peter Williams: REU student summer 2011- University of Alaska Fairbanks

Professional Organizations

Ecological Society of America American Geophysical Union

Service

Travel coordinator, EBIO Colloquium Committee: 2012- present
Climate Change Outreach Committee: member 2013-present
LTER Dormant Ecology Working Group: member 2012- present
LTER Ecosystem Transitions Working Group: member 2012- 2013

Professional Development

Engaged teaching in the classroom with Wendy Ward Hoffer (8/27/2012)
Sheltered instruction training: ESL students with Rafael Salgado (11/15/2012)
Presentation Bookcamp with Dr. Richard Tankersley (1/31-3/1/2013)
Experiential Science Learning Collaborative with Dr. Brad McLain, CU Denver (3/14/2013)
GTP workshops (12/20 workshops)
EBIO GTP hours (3 hours)