

BRIAN WILLIAM BENSCOTER

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Education

Southern Illinois University-Carbondale	Plant Biology	Ph.D., 2007
Villanova University	Biology	M.S., 2002
Villanova University	Biology	B.S., 2000

Appointments

2015-present Chair-Local Host, Ecological Society of America 2016 Conference Committee
2014-present National Academies Education Fellow in the Life Sciences
2014-present Chair-Elect, Society of Wetland Scientists Peatland Section
2013-2014 Chair, Society of Wetland Scientists Biogeochemistry Section
2010-present Assistant Professor of Plant Ecology, Florida Atlantic University
2010-present Director, FAU-Davie Greenhouse
2008-2010 Post-Doctoral Associate, University of Guelph
2007-2008 Post-Doctoral Associate, Michigan State University
2003-2006 Science To Achieve Results (STAR) Fellow, US Environmental Protection Agency

Research

Current Grant Funding

US Department of Energy, Terrestrial Ecosystem Science 2012-2015. "Carbon dynamics of the Greater Everglades watershed and implications of climate change" (\$845,554; PI: R Hinkle; Co-I: BW Benscoter (\$570,915), X Comas, D Sumner, D DeAngelis)
National Aeronautics and Space Administration (NASA), 2012-2015. "Fuel consumption and carbon cycling in northern peatland ecosystems: understanding vulnerability to burning, fuel consumption, and emissions via remote sensing of fuel moisture and radiative energy." (\$815,133; PI: M Falkowski; Co-I: ES Kane, L Bourgeau-Chavez, N French, E Levin, ME Miller, R Kremens; Unfunded Collaborator: BW Benscoter, AMS Smith)
US Fish and Wildlife Service, 2012-2017. "Synergistic effects of invasive species (*Melaleuca quinquenervia*) and management practices on native plant community resilience in the Florida Everglades." (\$45,000; PI: BW Benscoter)
US Geological Survey, 2011-2015. "Cooperative Agreement: Carbon Dynamics of the Greater Everglades" (\$323,827; PI: L Berry; Co-I: BW Benscoter, X Comas)
US Bureau of Land Management, Joint Fire Sciences Program, January 2012-2015. "Influence of fuel moisture and density on black carbon formation during combustion of boreal peat fuels" (\$70,916; PI: BW Benscoter; Unfunded Co-I: ES Kane, M Falkowski)

Past Grant Funding

US Fish and Wildlife Service. 2014-2015. "First-order fire effects monitoring at the A.R.M. Loxahatchee National Wildlife Refuge." (\$10,000; PI: BW Benscoter)
FAU College of Science Seed Funding Program, 2012. "Cascading impacts of vegetation change in the Florida Everglades: linking vegetation to crayfish populations through peat characteristics." (\$8,000; PI: BW Benscoter; Unfunded Co-I: N Dorn)
US Environmental Protection Agency STAR Fellowship, 2004 – 2007 (PI: B Benscoter).
Society of Wetland Scientists Student Research Grant, 2004. "Temporal and Spatial Variability of Peat Accumulation and Vegetation of Post-Fire Boreal Bogs." (PI: B Benscoter)
Society of Wetland Scientists Student Research Grant, 2002. "Microtopographic Variation in Post-fire Vegetation Succession and Peat Accumulation in Boreal, Continental, Western Canadian Bog Peatlands." (PI: B Benscoter)

Peer-Reviewed Publications

*Undergraduate Student

**Graduate Student

- Benscoter, BW and DH Vitt. Contrasting succession trajectories of production, decomposition, and peat accumulation in burned boreal bogs. *Ecosystems*, *in submission*.
- Benscoter, BW, D Greenacre*, and MR Turetsky. Wildfire as a key determinant of peatland microtopography. *Canadian Journal of Forest Research*, *Submitted – in review*.
- Miller, CM**, BW Benscoter, MR Turetsky. The effect of long-term drainage on plant community composition and productivity in boreal peatlands. *Wetland Ecology and Management*, *Submitted – in review*.
- Johnston, D**, MR Turetsky, BW Benscoter, and BM Wotton. Fuel load, structure, and fire behaviour in forested bogs. *Canadian Journal of Forest Research – Accepted- in revision*.
- Kettridge, N, MR Turetsky, JH Sherwood, DK Thompson**, CA Miller**, BW Benscoter, MD Flannigan, BM Wotton, JM Waddington. Moderate drop in water table increases peatland vulnerability to post-fire regime shift. *Nature-Scientific Reports*, *Accepted – in press*.
- Lauck, M* and BW Benscoter. 2015. Non-destructive estimation of aboveground biomass in sawgrass communities of the Florida Everglades. *Wetlands*, 35(1): 207-210.
- Turetsky, MR, BW Benscoter, S Page, G Rein, G van der Werf, A Watts. 2014. Global vulnerability of peatlands to fire and carbon loss. *Nature-Geosciences*. DOI: 10.1038/NGEO2325
- Nungesser, M, C Saunders, C Coronado-Molina, J Obeysekera, J Johnson**, C McVoy, BW Benscoter. 2014. Potential effects of climate change on Florida's Everglades. *Environmental Management*, DOI: 10.1007/s00267-014-0417-5.
- Thompson, DK**, BW Benscoter, JM Waddington. 2014. Contrasting the water balance of a burned and unburned forested boreal peatland. *Hydrological Processes* 28: 5954-5964.
- Meingast, KM**, MJ Falkowski, ES Kane, LR Potvin, BW Benscoter, AMS Smith, LL Bourgeau-Chavez, and ME Miller. 2014. Spectral detection of near surface moisture content and water table position in northern peatland ecosystems. *Remote Sensing of Environment*, 152: 536-546.
- Kettridge, N, DK Thompson**, L Bombanato**, MR Turetsky, BW Benscoter, JM Waddington. 2013. The ecohydrology of forested peatlands: simulating the effects of tree shading on moss evaporation and species composition. *Journal of Geophysical Research-Biogeosciences*, 118: 422-435.
- Waddington, J.M., D.K. Thompson, M. Wotton, W.L. Quinton, M.D. Flannigan, B.W. Benscoter, S.A. Baisley*, M.R. Turetsky. 2012. Examining the utility of the Canadian Forest Fire Weather System in Canadian boreal peatlands. *Canadian Journal of Forest Research* 42: 47-58.
- Turetsky, M.R., W. Donahue, BW Benscoter. 2011. Experimental drying intensifies burning and carbon losses in a northern peatland. *Nature Communications* 2:514
- Benscoter, BW, DK Thompson**, JM Waddington, MD Flannigan, M Wotton, W DeGroot, and MR Turetsky. 2011. Interactive effects of vegetation, soil moisture, and bulk density on the depth of burning of thick organic soils. *International Journal of Wildland Fire*. 20 (3): 418-429.
- Morris, PJ, JM Waddington, BW Benscoter, and MR Turetsky. 2011. Conceptual frameworks in peatland ecohydrology: looking beyond the acrotelm-catotelm model. *Ecohydrology*. 4: 1-11.
- Wieder, RK, KD Scott, K Kamminga, MA Vile, DH Vitt, T Bone*, B Xu**, BW Benscoter, and J Bhatti. 2009. Post-fire carbon balance in boreal bogs of Alberta Canada. *Global Change Biology*. 15: 63-81.
- Benscoter, BW and DH Vitt. 2008. Spatial patterns and temporal trajectories in bog ground layer composition along a post-fire chronosequence. *Ecosystems*. 11 (7): 1054-1064.
- Benscoter, BW and DH Vitt. 2007. Evaluating feathermoss growth: A challenge to traditional methods and implications for the boreal carbon budget. *Journal of Ecology*. 95 (1): 151-158.
- Wieder, RK, DH Vitt, and BW Benscoter. 2006. Peatlands and the Boreal Forest. pg 1-9 *in*: RK Wieder and DH Vitt (eds.) *Boreal Peatland Ecology*. Springer-Verlag, Berlin-Heidelberg-New York.

- Benscoter, BW. 2006. Post-fire bryophyte establishment in a continental bog. *Journal of Vegetation Science*. 17 (5): 647-652.
- Benscoter, BW, DH Vitt, and RK Wieder. 2005. Association of post-fire peat accumulation and microtopography in boreal bogs. *Canadian Journal of Forest Research*. 35 (9): 2188-2193.
- Benscoter, BW, RK Wieder, and DH Vitt. 2005. Linking microtopography with post-fire succession in bogs. *Journal of Vegetation Science*. 16: 453-460.
- Benscoter, BW and RK Wieder. 2003. Variability in organic matter lost by combustion in a boreal bog during the 2001 Chisholm fire. *Canadian Journal of Forest Research*. 33 (12): 2509-2513.

Awards

- Researcher of the Year (Assistant Professor), Florida Atlantic University, 2013-2014
- Outstanding Graduate Student Researcher, Southern Illinois University-Carbondale, 2006.
- US Environmental Protection Agency STAR Fellowship. Southern Illinois University-Carbondale, August 2004-2007.
- Graduate Summer Research Fellowship. Villanova University, June 2001.
- Graduate Summer Research Fellowship. Villanova University, June-July 2002.

Awards to Supervised Students

- FAU-National Park Service Environmental Science Everglades Fellowship (L. Reger**), 2014-2016. "Post-fire succession and carbon storage in the northern Everglades." (\$43,899)
- FAU Presidential Fellowship, Integrative Biology Doctoral Program (J. Dell**), 2014-2015.
- FAU Environmental Science Program, Best Proposal Poster (L. Reger**), 2014. "Post-fire succession and carbon storage in the northern Everglades." (\$50 for society membership)
- FAU Broward Undergraduate Research Symposium, Best Undergraduate Poster (V. Benavides*), Spring 2014. "Measuring carbon dioxide exchange along a wetland-to-flatwoods gradient at The Nature Conservancy's Disney Wilderness Preserve."
- FAU Broward Undergraduate Research Grant (V. Benavides*), Fall 2013. "Measuring Carbon Dioxide Exchange Along a Wetland-to-Flatwoods Gradient at The Nature Conservancy's Disney Wilderness Preserve." (\$2,000)
- FAU Provost Fellowship, Environmental Science Master's Program (M. Budny**), 2012-2013. (\$2,500)
- Southeast Ecology and Evolution Conference, Best Undergraduate Poster (M. Lauck*), 2013. "Adapting the pin-intercept method for non-destructive estimation of aboveground biomass in sawgrass communities of A.R.M. Loxahatchee National Wildlife Refuge." (\$150)
- Society of Wetland Scientists, South Atlantic Chapter Student Travel Grant (M. Lauck*), 2013 (\$100)
- FAU Broward Undergraduate Research Grant (M. Lauck*), Spring 2013. "Adapting the pin-intercept method for non-destructive estimation of aboveground biomass in sawgrass communities of A.R.M. Loxahatchee National Wildlife Refuge." (\$3,500)
- FAU Provost Fellowship, Environmental Science Master's Program (J. Lange**), 2011-2012 (\$2,500)
- FAU Undergraduate Research Grant (M. Transleau*), Fall 2012. "Soil Subsidence of *Typha domingensis* peat in response to Everglades hydrology." (\$456)

Presentations at Professional Meetings

- *Undergraduate Student
 **Graduate Student

- Benscoter, BW, M McClellan**, V Benavides*, D Harshbarger, and X Comas. "Estimating Carbon Stocks and Atmospheric Exchange of Depressional Marshes on the Central Florida Landscape." American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.

- Graham, SL, DM Sumner, B Shoemaker, BW Benscoter, and R Hinkle. "Water level and fire regulate carbon sequestration in a subtropical peat marsh." American Geophysical Union Fall Meeting, San Francisco, CA, December 2014 .
- Budny, M**, and BW Benscoter. "Impacts of willow invasion on vegetation water and carbon exchange in the Florida Everglades." American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
- Turetsky, MR, BW Benscoter and D Olefeldt. "Will climate change exceed the resilience of western Canadian peatlands?" American Geophysical Union Fall Meeting, San Francisco, CA, December 2014 (invited).
- Watts, A., MR Turetsky, BW Benscoter, SE Page, G Rein, and G van der Werf. "Global perspective on peat fires." American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
- Benscoter, BW. "Bryophyte community feedbacks to ecosystem structure and function in boreal peatlands." Botany 2014, Boise, ID, July 2014 (invited).
- Benscoter, BW, and D Harshbarger. "Community carbon exchange along an ecosystem hydrological gradient in the Florida Everglades." Joint Aquatic Sciences Meeting, Portland, OR, May 2014.
- Benavides, V*, D Harshbarger, and BW Benscoter. "Ecosystem carbon exchange across a depressional marsh ecotone in Central Florida." Joint Aquatic Sciences Meeting, Portland, OR, May 2014.
- Harshbarger, D, BW Benscoter, R Gobble, C Mason, and M Kapsch. "Effectiveness of aerial herbicide treatment of *Melaleuca* for habitat recovery in the northern Everglades." Joint Aquatic Sciences Meeting, Portland, OR, May 2014.
- Chapman, AD**, BW Benscoter and NJ Dorn. "Cascading effects of vegetation on peat soil properties and crayfish survival in the Florida Everglades." Joint Aquatic Sciences Meeting, Portland, OR, May 2014.
- Benscoter, BW, and MR Turetsky. "Linking the fire regime to carbon cycling in peatlands." Society of Wetland Scientists Annual Meeting, Duluth, MN, June 2013 (invited).
- Chapman, A**, BW Benscoter and N Dorn. "Cascading effects of vegetation on peat soil properties and crayfish survival in the Everglades." A.R.M. Loxahatchee NWR Science Day Workshop, Boynton Beach, FL, September 2013.
- Lange, J** and BW Benscoter. "Synergistic effects of invasive species (*Melaleuca quinquenervia*) and management practices on native plant community resilience in the Florida Everglades." A.R.M. Loxahatchee NWR Science Day Workshop, Boynton Beach, FL, September 2013.
- Lauck, M* and BW Benscoter. "Adapting the pin-intercept method to estimate emergent biomass in sawgrass-dominated regions of the Florida Everglades." A.R.M. Loxahatchee NWR Science Day Workshop, Boynton Beach, FL, September 2013.
- Yeyati, N*, J Lange** and BW Benscoter. "Limits to the spread of sawgrass: seed bank germination and vegetative growth rates at A.R.M. Loxahatchee National Wildlife Refuge." A.R.M. Loxahatchee NWR Science Day Workshop, Boynton Beach, FL, September 2013.
- Bourgeau-Chavez, LL, LK Jenkins, ES Kasischke, MR Turetsky, BW Benscoter, EJ Banda, EJ Boren, SL Endres, and M Billmire. "Vulnerability of North American boreal peatlands to interactions between climate, hydrology, and wildland fires." American Geophysical Union Fall Meeting, San Francisco, CA, December 2012.
- Benscoter, BW, MR Turetsky, and JT Johnson**. "Regulation of carbon storage by wildfire in boreal and subtropical peatlands." American Geophysical Union Fall Meeting, San Francisco, CA, December 2012.
- Turetsky, MR, BW Benscoter, ES Kane, and D Olefeldt. "The burning of northern peatlands: evaluating evidence of potential regime shifts." American Geophysical Union Fall Meeting, San Francisco, CA, December 2012 (invited).
- Benscoter, BW and MR Turetsky. "Fire and carbon cycling in boreal North American peatlands." Society of Wetland Scientists/INTECOL Joint Meeting, Orlando, FL, June 2012.
- Johnson, JT** and BW Benscoter. "Estimating Everglades peat vulnerability to combustion." Society of Wetland Scientists/INTECOL Joint Meeting, Orlando, FL, June 2012.

- Lange, JJ** and BW Benscoter. “Synergistic effects of invasive species (*Melaleuca quinquenervia*) and management practices on native plant community resilience in the Florida Everglades. Society of Wetland Scientists/INTECOL Joint Meeting, Orlando, FL, June 2012.
- Benscoter, BW and MR Turetsky. “Fire and microtopography in peatlands: Feedbacks and carbon dynamics.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.
- Kotowska, AM**, MR Turetsky, and BW Benscoter. “The role of sustained drainage and wildfire on C emissions in boreal peatlands.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.
- Miller, CA**, MR Turetsky, and BW Benscoter. “The effect of long-term drainage on vegetation structure and productivity in boreal peatlands.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.
- Turetsky, MR, ES Kane, and BW Benscoter. “Biomass burning in boreal forests and peatlands: effects on ecosystem carbon losses and soil carbon stabilization as black carbon.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2011 (invited).
- Thompson, DK, M Wotton, WR Turetsky, M Flannigan, BW Benscoter, and JM Waddington. “Ecohydrological controls on peat consumption during wildfire.” American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.
- Benscoter, BW. “Linking form and function: Implications of disturbance in a changing climate.” Florida Climate Change Task Force Workshop, University of Florida, Gainesville, FL, November 2011.
- Benscoter, BW, MR Turetsky, DK Thompson** and JM Waddington. Community composition and disturbance in peatland ecosystems: feedbacks in a changing climate. West Siberian Peatlands and Carbon Cycle: Past and Present, 3rd International Field Symposium. Khanty-Mansiysk, Russia, June 27-July 5, 2011 (Oral Presentation)
- Benscoter, B.W., M.R. Turetsky, D.K. Thompson**, and J.M. Waddington. Peatland carbon cycling in a fire-prone landscape. Reclamation and Restoration of Boreal Peatland Ecosystems: Toward a Sustainable Future, Edmonton, Alberta, Canada, 25-27 March, 2010 (Invited Oral Presentation)
- Benscoter, B.W., and M.R. Turetsky. 2009. Multi-scale influences of wildfire and peatland carbon storage. The 2nd International Symposium on Peatlands in the Global Carbon Cycle, Prague, Czech Republic, 25-30 September, 2009 (Invited Oral Presentation)
- Benscoter, B.W., D.K. Thompson**, J.M. Waddington, M. Flannigan, M. Wotton, W. DeGroot, and M.R. Turetsky. 2009. Controls on organic layer combustion severity during wildfire in boreal bogs. American Geophysical Union-Canadian Geophysical Union Joint Meeting, Toronto, Ontario, Canada, May 2009 (Organized Oral Presentation)
- Benscoter, B.W. and D.H. Vitt. 2008. Post-fire recovery of the bog ground layer: The role of *Sphagnum fuscum* in bog function. Second International Symposium on the Biology of *Sphagnum*, Juneau/Anchorage, AK, August 1-10, 2008 (Oral Presentation).
- Benscoter, B.W. and D.H. Vitt. 2008. Linking community composition and ecosystem function in boreal bogs: Dominant-driven function in a species-limited ecosystem. Society of Wetland Scientists Conference, Washington, D.C., May 26-30, 2008 (Invited Oral Presentation).
- Benscoter, B.W., D.K. Thompson**, M.R. Turetsky, J.M. Waddington, M. Flannigan, W. DeGroot, and M. Wotton. Autogenic and allogenic controls on ground layer combustion in boreal bogs. Society of Wetland Scientist Conference, Washington, D.C., May 26-30, 2008 (Oral Presentation).
- Benscoter, B.W., D.H. Vitt, and R.K. Wieder. 2007. Effects of fire on boreal bogs and implications of climate change. American Geophysical Union Fall Meeting, San Francisco, CA, December 10-14, 2007 (Oral Presentation).
- Benscoter, B.W. and D.H. Vitt. 2007. Post-fire compositional and functional recovery of boreal bogs. Carbon Conference 2007, Wageningen, the Netherlands, April 15-18, 2007 (Poster).
- Wieder, R.K., K.D. Scott, K. Kamminga, M.A. Vile, D.H. Vitt, T. Bone*, B.W. Benscoter, B. Xu, and J. Bhatti. 2006. Post-Fire Carbon Balance Recovery in Western Canadian Bogs. Carbon Conference 2007, Wageningen, the Netherlands, April 15-18, 2007 (Oral Presentation).

- Benscoter, B.W. and D.H. Vitt. 2006. Evaluating feathermoss growth and production: A challenge to classic methods and implications for boreal carbon cycling. Ecological Society of America Conference, Memphis, TN, USA, August 6-11, 2006 (Poster).
- Corrado, R.*, S. Lascala*, R.K. Wieder, K.D. Scott, M.A. Vile, B.W. Benscoter, and N.B. Dise. 2006. Chemistry of streams draining small suburban watersheds in southeastern Pennsylvania, US. *BIOGEOMON 2006*, University of California-Santa Cruz, Santa Cruz, CA, USA, June 25-26, 2006 (Poster).
- Donahue, M.L.* and B.W. Benscoter. 2006. Decomposition and peat properties as a function of depth in boreal bogs. 5th Annual Undergraduate Research Forum, Southern Illinois University-Carbondale, Carbondale, IL, USA, April 3, 2006 (Poster).
- Benscoter, B.W. 2006. A model of post-fire ground layer recovery in boreal bogs. Midwest Ecology and Evolution Conference, Saint Louis University, Saint Louis, MO, USA, March 17-19, 2006 (Oral Presentation)
- Benscoter, B.W. and D.H. Vitt. 2005. Reestablishment of the ground layer after peatland fire and associated carbon storage. Ecological Society of America Conference, Montreal, Quebec, Canada, August 2005 (Organized Oral Presentation).
- Benscoter, B.W., D.H. Vitt, and R.K. Wieder. 2005. Understanding boreal peatland response to disturbance: a collaborative approach. US Environmental Protection Agency Science Forum, Washington, D.C., USA, May 2005 (Poster).
- Benscoter, B.W., D.H. Vitt, and R.K. Wieder. 2005. Microtopographic variation in post-fire vegetation succession of two Alberta bogs. Midwest Ecology and Evolution Conference, Southern Illinois University, Carbondale, IL, USA, March 2005 (Oral Presentation).
- Benscoter, B.W., D.H. Vitt, and R.K. Wieder. 2004. Responses of carbon accumulation to microtopography and fire: complex interactions in boreal peatlands. International Boreal Forest Research Association, Fairbanks, AK, USA, May 2004 (Poster).
- Bone, T.*, D.H. Vitt, and B.W. Benscoter. 2004. Black Spruce (*Picea mariana*) age structure in boreal bogs. Illinois State Academy of Science 96th Annual Meeting, University of Illinois, Urbana-Champaign, IL, USA, Spring 2004 (Oral Presentation).
- Benscoter, B.W. 2004. Post-fire carbon balance projections for boreal western Canadian bogs. Midwest Ecology and Evolution Conference, University of Notre Dame, South Bend, IN, USA, March 2004 (Oral Presentation).
- Benscoter, B.W., D.H. Vitt, and R.K. Wieder. 2002. Assessing the decomposition and compaction components of bulk density changes with depth in boreal, western Canadian bog peatlands. *BIOGEOMON 2002*, Reading, England, August 2002 (Poster).
- Benscoter, B.W., R.K. Wieder, and D.H. Vitt. 2002 Boreal Bog Vegetation Change after Fire: An Example of Relay Floristic Succession. Society of Wetland Scientists Annual Meeting, Lake Placid, NY, USA, June 2002 (Oral Presentation).
- Benscoter, B.W., R.K. Wieder, and D.H. Vitt. 2002. Variability of organic matter loss due to fire in boreal, western Canadian peatlands. American Geophysical Union Spring Meeting, Washington, D.C., USA, May 2002 (Poster).
- Benscoter, B.W., R.K. Wieder, D.H. Vitt and L.A. Halsey. 2001. Assessing spatial variation in organic matter lost due to fire within and between continental peatlands of western Canada. Tall Timbers 22nd Fire Ecology Conference, Kananaskis Village, Alberta, Canada, October 2001 (Oral Presentation)

Attendance at Professional Workshops/Technical Meetings

Society of Wetland Scientists Annual Meeting, Providence, RI, May 31-June 4, 2015

- Session Co-Convener (with M Jones and B Shoemaker), “Carbon, water, and energy cycling from inland wetlands to coastal estuaries in a changing environment”

Greater Everglades Ecosystem Restoration (GEER) Conference, April 21-23, 2015, Coral Springs, FL

- Session Co-Convener, “Carbon storage and release in low latitude peatlands”

Upper St John’s River Basin Research Consortium Meeting, St John’s River Water Management District, January 28, 2015

Comprehensive Everglades Restoration Plan RECOVER Science Meeting, South Florida Water Management District, January 21-23, 2015.

American Geophysical Union Fall Meeting, San Francisco, CA, December 15-19, 2014

- Session Co-Convener (with R Hinkle, B Shoemaker, and X Comas), “Carbon and Water Cycling within Low Latitude Wetlands”
- Session Co-Convener (with L Jenkins, S Goswami, and D Hayes), “Observations and model requirements for understanding drivers of disturbance processes in Arctic and Boreal terrestrial ecosystems”

“Scaling Evolution from Genomes to Ecosystems in the Peatmosses (*Sphagnum*)” NESCent workshop, Durham, NC, October 13-15, 2014 (invited)

“A.R.M. Loxahatchee National Wildlife Refuge Science Workshop.” South Florida Water Management District, West Palm Beach, FL, September 18, 2014.

“FAU-USGS Research Collaboration in Everglades Carbon and Water Cycling” US Geological Survey Technical Meeting, USGS Florida Water Science Center, Davie, FL, September 22, 2014

National Academies Summer Institute on Undergraduate Education, Gulf Coast Summer Institute, July 21-25, 2014, Baton Rouge, LA.

“Recommendations for Everglades Restoration under a Future Climate Scenario.” Florida Center for Environmental Studies & USGS Technical Meeting, Florida Atlantic University, April 28-29, 2014 (invited-vegetation working group)

“Tamiami Trail-Northeast Shark River Slough Monitoring and Assessment Plan Workshop.” Everglades National Park, Homestead, FL, January 27, 2014.

“A.R.M. Loxahatchee National Wildlife Refuge Science Workshop.” South Florida Water Management District, West Palm Beach, FL, September 26, 2013.

“Predicting Ecological Changes in the Florida Everglades under a Future Climate Scenario.” Florida Center for Environmental Studies and USGS Technical Meeting, Florida Atlantic University, February 14-15, 2013. (invited)

INTECOL/Society of Wetland Scientists/Greater Everglades Ecosystem Restoration Joint Conference, June 3-9, 2012, Orlando, FL

- Session Co-Convener (with T Troxler), “Patterns and Drivers of Carbon Storage in Peatlands”
- Session Co-Convener (with MR Turetsky), “Impact of peatland fires on ecosystem function and feedbacks to climate: A global perspective”

“Developing a Carbon Budget for the Greater Everglades Ecosystem in a Changing Climate.” Florida Atlantic University, Davie, FL, July 2011 (organized by BW Benscoter and X Comas; sponsored by US-DOE and FAU Center for Environmental Studies).

“A.R.M. Loxahatchee National Wildlife Refuge Science Workshop.” Boynton Beach, FL, August 30, 2011.

“Everglades-Pantanal Initiative Workshop.” Florida International University-Florida Atlantic University-Everglades National Park, July 13-16, 2011.

“Influence of Sea Level Rise on Natural Systems of the Greater Everglades.” Florida Atlantic University, Boca Raton, FL, April 2011.

“Decomartmentalization and Sheetflow Enhancement (DECOMP) Science Workshop 2.” US Army Corp of Engineers-CERP Adaptive Management Planning Committee, UF/IFAS, Davie, FL, February 24, 2011.

“Decomartmentalization and Sheetflow Enhancement (DECOMP) Science Workshop 1.” US Army Corp of Engineers-CERP Adaptive Management Planning Committee, A.R.M. Loxahatchee National Wildlife Refuge, Boynton Beach, FL, December 1-2, 2011.

- “Incorporating Climate Change and Sea Level Rise in the Total System Conceptual Model for the Everglades.” USGS/Everglades Science Coordination Group Workshop, UF Hurricane House, Davie, FL, October 19, 2010.
- “Reclamation and Restoration of Boreal Peatland and Forest Ecosystems: Toward a Sustainable Future” Edmonton, Alberta, Canada, March 25-27, 2010.
- “Fourth International Workshop on the Biology of *Sphagnum*.” Juneau/Anchorage, Alaska, August 1-10, 2008.
- “Establishing a Russian/American Peatland Research Program.” Peatland Ecosystem Analysis and Training Network (PEATNET). Khanti-Mansiysk, Russia, May 21-30, 2006 (sole student participant).
- “Functioning of Boreal Forest Ecosystems”. Swedish University of Agricultural Sciences, Department of Forest Vegetation Ecology. Umea, Sweden, June 12-18, 2004 (sole US participant).

Invited Lectures

- Southern Illinois University-Carbondale General Biology for Non-majors. “Photosynthesis.” Fall 2005.
- Villanova University Introductory Ecology. “The Carbon Cycle and Climate Change.” Fall 2002.
- Villanova University Environmental Science for Non-majors. “Climate Change: Form, Function, and Future.” Spring 2002.

Invited Seminars

- “Disturbance Ecology of Wetlands: Ecosystem Resilience in a Changing Climate” Florida International University, Environmental Science Seminar Series, Fall 2011.
- “Community composition and disturbance in wetland ecosystems: feedbacks in a changing climate” University of Guelph, Department of Integrative Biology Seminar Series, Winter 2010.
- “Answering the Burning Question: Effects of Fire on Western Canadian Peatlands” Lehigh University, Ecology and Environmental Science Seminar Series, Fall 2008.
- “Post-Fire Compositional and Functional Recovery of Boreal Bogs.” Southern Illinois University-Carbondale, Center for Ecology Seminar Series, Fall 2006.
- “Seminar: Grant Writing for Graduate Students.” Southern Illinois University-Carbondale, Fall 2004.
- “Panel Discussion: The Impacts of Climate Change.” Villanova University, Fall 2001.

Teaching & Training

Department of Biological Sciences, Florida Atlantic University

- BOT 5155 & 5155L Flora of South Florida & Lab, Spring 2011
- PCB 4355 Principles of Ecology, Spring 2012, Fall 2012-2015
- BSC 6934 Plant Ecology & Lab, Spring 2013-2015

Supervision of Graduate Students

Italics – Graduated

- James Johnson*, FAU Environmental Sciences Master’s Program (Major Advisor) - 2010-2012
- James Lange*, FAU Environmental Sciences Master’s Program (Major Advisor) - 2011-present
- Alex Chapman*, FAU Biological Sciences Master’s Program (Major Advisor) - 2012-2014
- Michelle Budny*, FAU Environmental Sciences Master’s Program (Major Advisor) - 2013-present
- Lisa Reger*, FAU Environmental Sciences Master’s Program (Major Advisor) – 2014-present
- Jessica Dell*, FAU Integrative Biology Doctoral Program (Major Advisor) – 2014-present
- Jacob Dombrowski*, FAU Environmental Sciences Master’s Program (Major Advisor) – 2014-present
- Daniel Hagood*, FAU Environmental Sciences Master’s Program (Major Advisor) – 2014-present
- Tristan Froud*, FAU Environmental Sciences Master’s Program (Major Advisor) – 2014-present
- Bethany Resnick*, FAU Biological Sciences Master’s Program (Comp. Examiner) – 2012
- James Beerens*, FAU Integrative Biology Doctoral Program (Committee Member) – 2011-2014

Jessica Klassen, FAU Integrative Biology Doctoral Program (Committee Member) – 2013-present
 Jeremy Conrad, FAU Integrative Biology Doctoral Program (Committee Member) – 2014-present
 Matt McClellan, FAU Geoscience Doctoral Program (Committee Member) – 2014-present
Joshua Holbrook, FAU Environmental Sciences Master’s Program (Committee Member) – 2013-present
 Cara Abbott, FAU Environmental Sciences Master’s Program (Committee Member) – 2014-present
 Liz Dutra, FAU Biological Sciences Master’s Program (Committee Member) – 2014-present
Karl Meingast, Michigan Tech University Forestry Master’s Program (Committee Member) – 2012-2014

University Service

FAU Environmental Science Program - Program Committee – 2014-present
 Broward Campus U/C Library Governance Policy Advisory Committee – 2010-present
 FAU Environmental Science Program - Admissions Committee – 2011-2014
 FAU Climate Change Research Initiative Director Search Committee – 2010
 Broward Campus University/College Library Dean Search Committee – 2011, 2012, 2013
 Broward Campus Meeting with FL State Representative Katie Edwards – Spring 2013

Professional Service

Membership in Professional Organizations

Society of Wetland Scientists	Ecological Society of America
• Chair, Biogeochemistry Section 2013-2014	• Local Host, 2016 Conference Committee
• Chair-Elect, Peatland Section 2014-2015	Association for Fire Ecology
• Undergraduate Mentor, 2014 Annual Meeting	American Bryological and Lichenological Society
American Geophysical Union	

Evaluation of Manuscripts for Professional Journals

Ecology	Environmental Management
Journal of Ecology	Plant, Cell & Environment
Ecological Applications	Ecosphere
Ecosystems	Science of the Total Environment
Journal of Vegetation Science	New Zealand Journal of Ecology
Biogeochemistry	International Journal of Wildland Fire
Biogeosciences	International Journal of Heat and Mass Transfer
Bryologist	Canadian Journal of Soil Science
Ecohydrology	Canadian Journal of Forest Research
Quaternary Reviews	Wetlands
Oecologia	Wetland Ecology and Management
PLOS One	

Proposal Evaluation for Funding Agencies

Panelist, US Bureau of Land Management, Joint Fire Sciences Program (2015)
 Ad-Hoc Reviewer, National Science Foundation (2010, 2012, 2013)
 Panelist, NASA Arctic-Boreal Vulnerability Experiment (ABOVE) Campaign Evaluation Team (2012)
 Panelist, US Department of Energy, Oak Ridge National Laboratory Triennial Review (2012)
 Panelist, US Bureau of Land Management, Joint Fire Sciences Program (2012)
 Panelist, National Science Foundation, Ecosystem Sciences (2011)
 Panelist, National Science Foundation, Population and Community Ecology (2011)

Organization of Professional Meetings

Ecological Society of America Annual Meeting, Ft Lauderdale, FL, August 7-12, 2016

- Local Host Chair, Conference Committee

Society of Wetland Scientists Annual Meeting, Providence, RI, May 31-June 4, 2015

- Session Co-Convener (with M Jones and B Shoemaker), “Carbon, water, and energy cycling from inland wetlands to coastal estuaries in a changing environment”

Greater Everglades Ecosystem Restoration (GEER) Conference, April 21-23, 2015, Coral Springs, FL

- Session Co-Convener, “Carbon storage and release in low latitude peatlands”

American Geophysical Union Fall Meeting, San Francisco, CA, December 15-19, 2014

- Session Co-Convener (with R Hinkle, B Shoemaker, and X Comas), “Carbon and Water Cycling within Low Latitude Wetlands”
- Session Co-Convener (with L Jenkins, S Goswami, and D Hayes), “Observations and model requirements for understanding drivers of disturbance processes in Arctic and Boreal terrestrial ecosystems”

INTECOL/Society of Wetland Scientists/Greater Everglades Ecosystem Restoration Joint Conference, June 3-9, 2012, Orlando, FL

- Session Co-Convener (with T Troxler), “Patterns and Drivers of Carbon Storage in Peatlands”
- Session Co-Convener (with MR Turetsky), “Impact of peatland fires on ecosystem function and feedbacks to climate: A global perspective”

American Geophysical Union-Canadian Geophysical Union Joint Meeting, May 2009, Toronto, Canada

- Session Co-Convener (with MD Flannigan), Wildfire in natural systems: vulnerability, impact, and response

25th Annual Midwest Ecology and Evolution Conference, March 2005, Carbondale, IL

- Conference Organizing Committee Chair