Carl Wepking

cwepking@gmail.com ♦ 414-899-9006 ♦ 1015 Mound Street, Madison, WI 53715

EDUCATION

Doctor of Philosophy, Biological Sciences, 2018
Virginia Tech, Blacksburg, VA
Advisor: Michael Strickland, Ph.D.

Interfaces of Global Change Fellow, 2018
Global Change Center, Virginia Tech, Blacksburg, VA

Master of Science, Environmental Science, 2012
Washington State University, Vancouver, WA
Advisor: Steve Bollens, Ph.D.

Bachelor of Science, Environmental Science, 2008
Saint Norbert College, De Pere, WI
Advisor: Anindo Choudhury, Ph.D.
Minor: Biology

Study Abroad, 2007
School for International Training, Fort Dauphin, Madagascar
Biodiversity and Natural Resource Management

PROFESSIONAL EXPERIENCE

University of Wisconsin – Research Program Manager II
2019 – Present, Madison, WI
Agronomy Department

Global Soil Biodiversity Initiative - Executive Director
2018 – Present, Fort Collins, CO
School of Global Environmental Sustainability

Colorado State University, Post-Doctoral Fellow
2018 – Present, Fort Collins, CO
Soil Biodiversity and Ecosystem Functioning Lab, Dr. Diana Wall

Virginia Tech Graduate Research Assistant
2015-2018, Blacksburg, VA
Soil Ecology Lab, Dr. Michael Strickland

Virginia Tech Research Assistant
September 2013-December 2014, Blacksburg, VA
Nematode Assay Lab, Dr. Jon Eisenback

PG Environmental Field Technician
May 2013-September 2013, Herndon, VA
EPA 2013-2014 National Rivers and Streams Assessment

Washington State University Graduate Research Assistant
September 2009-December 2012, Vancouver, WA
Aquatic Ecology Lab, Dr. Steve Bollens

Dauphin Island Sea Lab Lab Technician
September 2008-July 2009, Dauphin Island, AL
Fisheries Oceanography of Coastal Alabama, Dr. Frank Hernandez

Dauphin Island Sea Lab Summer Intern
May 2008-August 2008, Dauphin Island, AL
Marine Ecology Lab, Dr. Kenneth L. Heck

City of Milwaukee, Urban Forestry Intern
May 2006-August 2006; May 2007-August 2007; Milwaukee, WI
City of Milwaukee Forestry

PUBLICATIONS

McBride, Steve, **Carl Wepking**, Matthew L. Hedin, Rebecca Thompson, John E. Barrett, Michael S. Strickland. *Livestock and antibiotic effects on extracellular enzyme activity are driven by changes in biomass.* Manuscript in prep.

Wepking, Carl, Jane Lucas, Virginia Boulos, Michael S. Strickland. *Exposure to antibiotics alters thermal acclimation of soil microbial communities.* Manuscript in prep.

Wepking, Carl, Brian Badgley, John E. Barrett, Katharine F. Knowlton, Jane Lucas, Kevan Minick, Partha Ray, Sarah Shawver, Michael S. Strickland. *Prolonged exposure to manure from livestock administered antibiotics decreases ecosystem carbon-use efficiency and alters nitrogen cycling*. In press. Ecology Letters.

Wepking, Carl, Bethany Avera, Brian Badgley, John E. Barrett, Josh Franklin, Katharine F. Knowlton, Partha P. Ray, Crystal Smitherman, Michael S. Strickland. *Increased antibiotic resistance − Effects on microbial communities and ecosystem function.* 2017. Proceedings of the Royal Society-B. 284. DOI: 10.1098/rspb.2016.2233.

INVITED PRESENTATIONS (*indicates presenter)

Carl Wepking*. Interconnections of the Soil-Food-Human Microbiome. Invited Panelist. Presented at: Conference on Connections Between Soil Health and Human Health organized by the Soil Health Institute. Silver Spring, MD, USA. October 2018.

Carl Wepking*, Brian Badgley, John E. Barrett, Katharine F. Knowlton, Strickland, Michael S. *Antibiotic resistance and soil ecosystem function*. Presented at: USDA Project Director's Meeting, Washington D.C., USA. January 2018.

Strickland, Michael S*., Brian Badgley, John E. Barrett, Katharine F. Knowlton, Kevan Minick, **Carl Wepking**. *Ecosystem processing in the age of antibiotics*. Presented at: 101st Ecological Society of America Annual meeting, Fort Lauderdale, FL, USA. August 2016.

Strickland, Michael S*., Brian Badgley, John E. Barrett, Katharine F. Knowlton, Kevan Minick, **Carl Wepking**. *Interactions between antibiotic resistance, soil microbial communities, and coupled elemental cycles*. Presented at: USDA Project Director's Meeting, Greensboro, NC, USA, 2015.

CONVENED SESSIONS AND PANELS (*indicates moderator)

Erin K. Cameron, Richard V. Pouyat, Michael S. Strickland, Diana H. Wall, **Carl Wepking***. Soil Biodiversity on the Global Stage: Identifying Priorities, Opportunities and Challenges. Special Session at Ecological Society of America Annual Meeting: Louisville, KY, USA. 12 Aug. 2019.

Loren Byrne, Sarah Evans, Kyle Wickings, Diana H. Wall, **Carl Wepking.*** *The state of Knowledge on Global Soil Biodiversity.* Panel Discussion at Soil Ecology Society Biennial Conference: Toledo, OH, USA. 29 May 2019.

CONTRIBUTED PRESENTATIONS (*indicates presenter)

Wepking, Carl*, Brian Badgley, John E. Barrett, Katharine Knowlton, Jane Lucas, Kevan Minick, Partha Ray, Sarah Shawver, Michael Strickland. *Exposure to antibiotics*

alters microbial communities and terrestrial elemental cycling. Contributed Talk at: Ecological Society of America Annual Meeting: Louisville, KY, USA. 14 Aug. 2019.

Wepking, Carl*, Brian Badgley, John E. Barrett, Katharine Knowlton, Jane Lucas, Kevan Minick, Partha Ray, Sarah Shawver, Michael Strickland. *Exposure to antibiotics alters microbial communities and terrestrial elemental cycling.* Oral Presentation at: Soil Ecology Society Biennial Conference: Toledo, OH, USA. 29 May 2019.

Wepking, Carl*, Brian Badgley, John E. Barrett, Matthew Hedin, Katharine Knowlton, Kevan Minick, Partha Ray, Michael Strickland. *Livestock antibiotics alter soil microbial communities and ecosystem function.* Oral Presentation at: Virginia Tech Interfaces of Global Change Research Symposium, Blacksburg, VA, USA. April 2018.

Wepking, Carl*, Brian Badgley, John E. Barrett, Matthew Hedin, Katharine Knowlton, Kevan Minick, Partha Ray, Michael Strickland. *Livestock antibiotics alter soil microbial communities and ecosystem function.* Oral Presentation at: Virginia Tech Department of Biological Sciences Research Day, Blacksburg, VA, USA. February 2018.

Wepking, Carl*, Brian Badgley, John E. Barrett, Matt Hedin, Katharine F. Knowlton, Kevan Minick, Partha P. Ray, Michael S. Strickland. *Ecological effects of livestock antibiotics on agricultural soils.* Poster Presentation at: Soil Ecology Society, Fort Collins, CO, USA. April 2017.

Wepking, Carl*, Brian Badgley, John E. Barrett, Matt Hedin, Katharine F. Knowlton, Kevan Minick, Partha P. Ray, Michael S. Strickland. *Ecological effects of livestock antibiotics on agricultural soils.* Poster Presentation at: Virginia Tech Interfaces of Global Change Research Symposium, Blacksburg, VA, USA. April 2017.

Wepking, Carl*, Bethany Avera, Brian Badgley, John E. Barrett, Josh Franklin, Katharine F. Knowlton, Partha P. Ray, Crystal Smitherman, Michael S. Strickland. *Increased antibiotic resistance – effects on microbial communities and ecosystem function.* Oral Presentation at: Virginia Tech Interfaces of Global Change Research Symposium, Blacksburg, VA, USA. April 2016.

Wepking, Carl*, Brian Badgley, John E. Barrett, Katharine Knowlton, Michael Strickland. *Increased antibiotic resistance – effects on microbial communities and ecosystem function.* Oral Presentation at: Virginia Tech Department of Biological Sciences Research Day. February 2016.

Wepking, Carl*, Brian Badgley, John E. Barrett, Katharine Knowlton, Michael Strickland. *Antibiotic exposure in agroecosystems: Evidence for altered microbial community structure and ecosystem function.* Contributed Talk at: 100th Ecological Society of America Annual Meeting, Baltimore, MD, USA. August 2015.

Wepking, Carl*, Steve Bollens, Gretchen Rollwagen-Bollens. *Ichthyoplankton dynamics in a northeast Pacific estuary (Willapa Bay WA, USA) in relation to prey availability and environmental variables*. Poster Presentation at: Washington State University Research Showcase, Vancouver, WA, USA, 2012.

Wepking, Carl*, Steve Bollens, Gretchen Rollwagen-Bollens. *Prey availability and environmental variables as controls for ichthyoplankton dynamics in a Pacific Northwest estuary, Willapa Bay WA, USA*. Poster Presentation at: 21st Biennial Conference of the Coastal and Estuarine Research Federation, Daytona Beach, FL, USA. November 2011.

TEACHING

Ecology (BIOL 2804) 28 February 2017
Guest Lecturer
Virginia Polytechnic Institute and State University, Department of Biological Sciences

Plant Taxonomy (BIOL 3204) 20 February 2017

Guest Lecturer
Virginia Polytechnic Institute and State University, Department of Biological Sciences

Plant Taxonomy (BIOL 3204) Spring 2016, Spring 2017
Graduate Teaching Assistant
Virginia Polytechnic Institute and State University, Department of Biological Sciences

Ecology (BIOL 2804) 27 September 2016
Guest Lecturer
Virginia Polytechnic Institute and State University, Department of Biological Sciences

Environmental Science (ESRP 101) Fall 2012, Spring 2011
Graduate Teaching Assistant
Washington State University, School of Earth and Environmental Science

Upper Biology (BIOL 107) Spring 2012
Graduate Teaching Assistant
Washington State University, School of Earth and Environmental Science

Lower Biology (BIOL 102) Fall 2011
Graduate Teaching Assistant
Washington State University, School of Earth and Environmental Science

Oceanography (GEOL 230) Fall 2009
Graduate Teaching Assistant
Washington State University, School of Earth and Environmental Science

Ecology (BIOL 228) Fall 2007
Undergraduate Teaching Assistant
St. Norbert College, Biology Department

AWARDS AND HONORS

2018	Third Place-Virginia Tech Biological Science Research Day Breakout Talks ($100)
2017	Roundtable "Make a Difference" Scholarship, Virginia Tech College of Science ($10,000)
2017	Virginia Tech Graduate Student Association Travel Award ($180)
2017	Interfaces of Global Change Fellowship ($40,000)
2016	Karen DePauw Outstanding Interdisciplinary Presentation Award ($200)
2016	Roundtable "Make a Difference" Scholarship, Runner-up, Virginia Tech College of Science
2015	Virginia Tech Global Change Center Interdisciplinary Research Award ($3,285)
2006, 2007	Deans List, St. Norbert College

PROFESSIONAL DEVELOPMENT

2017	Communicating Your Science and Telling the Climate Change Story: A Workshop with Susan Joy Hassol
2015	Alan Alda Center Science Communication Workshop
2011	Proposals: Deep Strategy and Tactics Workshop – Washington State University

PROFFESIONAL SERVICE AND ENGAGEMENT

- Expert Review: United Nations Food and Agriculture Organization (UN-FAO) Report – Status of Knowledge on Soil Biodiversity. Ongoing
- Expert Review: United Nations Intergovernmental Panel on Climate Change – Special Report on the Ocean and Cryosphere in a Changing Climate. January 2019.
- Creation of Global Soil Biodiversity website. November 2018.
- Manuscript Review: Scientific Reports. 2018-present.

- 2016-2017 Virginia Tech BGSA Treasurer.

SOCIETY MEMBERSHIPS

- American Geophysical Union
- Ecological Society of America
- European Geosciences Union
- Soil Ecology Society
- Soil Science Society of America

OTHER RELVANT SKILLS

- Microsoft Office software (Word, Excel, Powerpoint, *etc.*)
- R coding language
- Conversational French and limited Spanish