CURRICULUM VITAE: JASON P. OLIVER, PHD

Contact

Home: 167 Hunt Hill Rd. Ithaca, NY 148550
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Education

Ph.D. 2015 University of Minnesota, St. Paul, Minnesota
Bioproducts & Biosystems Science, Engineering & Management
Dissertation: Role of fungi in the biofiltration of emissions from livestock housings
Advisor: Dr. Jonathan Schilling

M.S. 2008 University of Maine, Orono, Maine
Ecology & Environmental Science
Thesis: Wood decay physiology of the inky cap fungi
Advisor: Dr. Jody Jellison

B.S. 2006 State University of New York, College of Environmental Science and Forestry, Syracuse, New York
Environmental & Forest Biology
Minor: Microbiology, Mycology, & Forest Pathology
Advisor: Dr. Thomas Horton

GRANTS, HONORS & AWARDS (*See webpage for full list*)

Jan. 2015 Graduate Research Scholarship, Minnesota Mycological Society, $500

Aug. 2014 Travel Scholarship, Bergsrud, UMN, BBE, $875

June 2014 Best Student Presentation, Mycological Society of America, East Lansing, MI

Jan. 2014 Travel Grant, American Ecological Engineering Society, $875

March 2013 Student Services Fees Event Grant, University of Minnesota - UMN Fungal Garden Workshop Series: Learn to Grow Your Own Gourmet Mushrooms, $1,000

Aug. 2013 Educational Activities in Microbial Ecology Award, Ecological Society of America

Aug. 2012 USDA-NIFA. Schilling J, Janni K, Jacobson L, Oliver J. Seed Grant - Microbial Analyses to Better Target Methane Biofiltration in Livestock Systems, $150,000

Oct. 2007 Competitive Internal Hatch Act Funding, Maine Agricultural and Forestry Experiment Station Research Council. Jellison J, Howell C, Oliver J. Bioconversion Capabilities of Wood Decay Fungi, $100,000

RESEARCH & EMPLOYMENT EXPERIENCES

2015-Current Technician, Pro-Dairy Program, PI: PE Curt Gooch
Biological & Environmental Engineering, Cornell University, Ithaca, NY
- Dairy Environmental Systems climate adaptation

2015-Current Investigator, Co-PIs: Dr. Randy Kolka (USFS) & Dr. Jonathan Schilling (UMN)
SPRUCE|Spruce & Peatland Responses Under Climatic and Environmental Change
- Wood decomposition rates and functional types in a shifting climate.

2010-2015 Research Assistant, PI: Dr. Jonathan Schilling
Bioprod. & Biosystems Engineering, University of Minnesota, St. Paul, Minnesota
- Work as part of a multi-disciplinary team investigating the microbial underpinnings of livestock operation biofilters
- Design, construction and monitor lab-, pilot- and full-scale biofilters in the laboratory, at an outreach and research center and at a local livestock operation.
- Microbial community characterization, PCR, and NGSequencing.

2009 - 2010 Env. Microbiologist, Bluepoint Environmental, Supervisor: Richard Dickinson
- Building air quality (mold/particulates/VOCs) testing, asbestos inspector

2008 - 2009 Farm Hand, Clovercrest Dairy, Charleston, ME, Owner: Steve Morrison
- Milk, herd care/management, tractor operation/maintenance and field work.

2007 - 2008 Farm Hand, Peacemeal Vegetable Farm, Owners: Mark Guzzi/Marcia Ferry
- Greenhouse maintenance, plant/weed/harvest, wash and market vegetables.

2006 - 2008 Research Assistant, University of Maine, Orono, Maine, PI: Dr. Jody Jellison
- Wood decay, fungal physiology and bioremediation potential of inky cap fungi.

2006 - 2008 Research Assistant, USDA Forest Service, Durham, NH, PI: Dr. Walter Shortle
- Role of fungi in biotransformation and nutrient cycling in the forest ecosystem

2003 - 2006 Lab Assistant, SUNY-Environmental Science & Forestry, Syracuse, NY
- Various projects, including air microbiology, willow biomass, willow phytoremediation, bacterial biopolymers, wood decay and durability testing, fungal culturing & bioprospecting

TEACHING & OUTREACH EXPERIENCE (*See webpage for full list*)

2010-2015 Teaching Assistant, University of Minnesota
- Biodegradation of Bioproducts, Spring 2011-2015
- Environmental & Industrial Microbiology, Fall 2014
- Diseases of Forest and Shade Trees, Spring 2011, 2012
- Bioremediation, Fall 2011, 2012

UMN Mycology Club, Saint Paul, MN
- Vice President, 2012-2015
- Mushroom Cultivation Workshop Series, Fall/Spring 2013, 2014, 2015
- Lectures, Spring 2014, 2015
- Forays, Summer 2013, 2014, 2015

Bell Museum of Natural History
- Saturday with a Scientist, Spring 2015
- Summer Camp, Summer 2013

College of Food, Agriculture, and Natural Resource Sciences
- Hope for Tomorrow, Murray Jr High, Spring 2015
- Middle & Highschool Teachers Summer Course, Summer 2013, 2014

Career Panel
- Augsburg College, Minneapolis, MN, Fall 2014

2009 K-12 Substitute Teacher, Union Springs Central School District, Union Springs, NY

2006 - 2008 Guest Lecture, University of Maine
- Plants and Society, Fall 2008
- Biology of the Fungi, Fall 2006, 2007
- Adv. Wood Deterioration & Protection, Fall 2006

Volunteer Instructor
- US Dept. of Education, Upward Bound Program, University of Maine, Summer 2008

RELATED PROFESSIONAL EXPERIENCES

Dec. 2015 Applied Agricultural Engineering Continuing Education Series, Session 13, Cornell University, Ithaca, NY

July 2015 Dairy Environmental Systems and Climate Adaptation Conference, Cornell, Ithaca, NY

Aug. 2014 USDA-AFRI, Biofilter Stakeholder Conference, Iowa state University, Ames, IA

Oct. 2010 USDA-AFRI, Midwest Animal Feeding Operation Air Pollution Mitigation Stake Holders Meeting, Bloomington, MN.

CURRENT MEMBERSHIPS/ASSOCIATIONS:

2013-Current American Ecological Engineering Society (AEES)
2013-Current Ecological Society of America (ESA)
2005-Current Mycological Society of America (MSA)
2011-Current American Society of Agricultural & Biological Engineers (ASABE)

PEER-REVIEWED PUBLICATIONS

2016 Oliver JP, Schilling JS. Fungal community dynamics in gas-phase biofilters treating livestock production emissions. Applied and Environmental Microbiology (In Prep.)

2016 Oliver JP, Schilling JS. Capture of methane by biofilter fungi – Findings from lab-scale and isotherm studies. Applied Engineering in Agriculture (solicited for special issue on climate change) (In Review)

2016 Oliver JP, Janni KA, Schilling JS. Bait and scrape: An approach for assessing biofilm microbial communities on organic media used for gas-phase biofiltration. Ecological Engineering (In Press)

2015 Oliver JP, Janni KA, Schilling JS. Applying trait-function relationships for microbial plant decomposition to predict media longevity in engineered bioreactors. Applied Microbiology and Biotechnology doi:10.1007/s00253-015-7134-8

2015 Oliver, J.P. Book Review: Mushrooms of the Midwest, Michael Kuo and Andrew S. Methven. In: A Prairie Naturalist, South Dakota State University.

2014 Janni, K.A., L. Jacobsen, B. Hetchler, J.P. Oliver, L. Johnston. Semi-continuous air sampling versus 24-hour bag samples to evaluate biofilters on a swine nursery in warm weather. Transactions of the ASABE. 57(5): 1501-1515

2010 Oliver, J., J. Perkins & J. Jellison. Effect of fungal pretreatment of wood on successional decay by several inky cap mushroom species. International Biodeterioration & Biodegradation 64:646-651 (Impact Level 2.074)

MEETING PUBLICATIONS

2015 Oliver JP, Schilling JS. Capture of methane by biofilter fungi - A chromatographic isotherm study (#2121469). ASABE 1st Climate Change Symposium: Adaptation and Mitigation, Chicago, Illinois, USA, May 3-5, 2015. doi:10.13031/cc.20152121469

2013 Janni, K. A., L. D. Jacobson, B. P. Hetchler, J. P. Oliver & L. J. Johnston. Comparing semi-continuous air sampling versus 24-hour bag samples to monitor gas emissions and treatment from a swine nursery with biofilters. ASABE Annual International Meeting, Kansas City, Missouri, USA, July 21 – 24.
doi: http://dx.doi.org/10.13031/aim.20131605534

2012 Janni,K. A., L. D. Jacobson, B. P. Hetchler, J. P. Oliver & L. J. Johnston. Comparing semi-continuous air sampling versus 24-hour bag samples from two flat-bed biofilters with new woodchip media. ASABE Annual International Meeting, Dallas, Texas, USA, July 29 - August 1, 2012. doi: 10.13031/2013.41824

TECHNICAL PRESENTATIONS *(Showing only recent, see webpage for full listing)*

May 2015 Oliver JP, Schilling JS. Capture of methane by biofilter fungi - A chromatographic isotherm study ASABE 1st Climate Change Symposium: Adaptation and Mitigation, Chicago, Illinois, USA, May 3-5, 2015

April 2015 Oliver, J.P., L.D. Jacobson, K.A. Janni, J.S. Schilling. Seed Grant: Microbial analyses to better target integrated efforts for methane (CH4) biofiltration in livestock systems. USDA-NIFA, Agricultural Science for Climate Variability and Change, Project Directors Meeting. Washington, DC. April 7-9 (poster & lightning talk)

Aug. 2014 Oliver, J.P. K.A. Janni, J.S. Schilling. Biofilters: The Biofilm Perspective. Iowa State University Biofilter Conference. Ames, IA. August 20th, 2014

June 2014	Mickelson, E., J.P. Oliver, K.A. Janni, J.S. Schilling. Investigating the relationships between varying filter media and microbial populations in biofiltration processes - Testing nitrogen as a potential driver for differences in biofilter media decay rates. Mycological Society of America Annual Meeting. East Lansing, MI. June 8-12, 2014. (poster)
June 2014	Oliver, J.P., K.A. Janni, J.S. Schilling. Developing a qPCR approach to monitor fungal dominance in biofilms colonizing wood chip biofilters. Mycological Society of America Annual Meeting. East Lansing, MI. June 8-12, 2014. (poster)
June 2014	Oliver, J.P., K.A. Janni, J.S. Schilling. Mycelium in the biofilter - Accessing fungal dynamics in wood chip biofilters treating livestock emissions. American Ecological Engineering Society Annual Meeting. Charleston, SC. June 9-11, 2014
March 2014	Oliver, J.P. Don't waste it…Decay it! Growing edible mushrooms on yard and farm wastes. 20th Annual University of Minnesota, Southern Research and Outreach Center Horticultural Day. Waseca, MN. March 8, 2014
Jan. 2014	Oliver, J.P., L.D. Jacobson, K.A. Janni, J.S. Schilling. Seed Grant: Microbial analyses to better target integrated efforts for methane biofiltration in livestock systems. USDA-NIFA, Agricultural Science for Climate Variability and Change, Project Directors Meeting. Gainesville, FL. Jan. 6-9, 2014
Jan. 2014	Schilling, J.S., J.P. Oliver, L.D. Jacobson, K.A. Janni. Seed Grant: Microbial analyses to better target integrated efforts for methane biofiltration in livestock systems. USDA-NIFA, Agricultural Science for Climate Variability and Change, Project Directors Meeting. Jan. 6-9, 2014 (poster)