Christopher William Smyth
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Education

Ph.D. Plant Pathology, ABD, Pennsylvania State University — *Expected* May 2018
B.S. Biology, Minor in Environmental Studies, Lock Haven University — 2013
Summa Cum Laude

Teaching Experience

2017 Instructor, MICRB107: Elementary Microbiology, Penn State University, Altoona
2017 Teaching Assistant, MICRB107: Elementary Microbiology, Penn State University, University Park
2017 Instructor, BIOL215: Basic Microbiology, Lock Haven University, Clearfield
2017 Instructor of Plant Pathology, PA Governor's School for Agricultural Sciences
2016 Teaching Assistant, PPEM/BIOL425: Biology of Fungi
2016 Instructor of Plant Pathology, PA Governor's School for Agricultural Sciences
2015 Teaching Assistant, PPEM/BIOL425: Biology of Fungi
2015 Instructor of Plant Pathology, PA Governor's School for Agricultural Sciences
2013 Marine Science Summer Camp Counselor, Chincoteague Bay Field Station

Publications

In prep **Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the ecology and epidemiology of mycoses caused by *Fusarium*.

In prep Miranda, X., N. Planes, L. D'Croz, E. Ochoa, T. Torres-Cruz, **C.W. Smyth**, D. M. Geiser, A. Porras-Alfaro, P. Vanderheyden, J. Darias, & C. Caballero-George. Biologically active compounds of *Hypocrea jecorina* isolated from the sponge *Haliclona caerulea* and phylogenetic analysis of fungi found in the genus *Haliclona sp.* collected in Panama.

In prep Kasson, M.T., R.J. Harvey, E.S. O'Neal, **C.W. Smyth**, J.W. Olive, & D.D. Davis. *Sphaerobolus parvus* sp. nov., discovery of a novel basidiomycete artillery fungus from Alabama.

2016 Hibbett, D., K. Abarenkov, U. Koljalg, M. Opik, B. Chai, J.R. Cole, Q. Wang, P.W. Crous, V.A. Robert, T. Helgason, J. Herr, P. Kirk, S. Lueschow, K. O'Donnell, H. Nilsson, R. Oono, C.L. Schoch, **C.W. Smyth**, D. Walker, A. Porras-Alfaro, J.W. Taylor, & D.M. Geiser. Sequence-based classification and identification of Fungi. Mycologia, doi:10.3852/16-130

2013 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The Alternative Host Hypothesis and Potential Virulence Genes in *Geomyces destructans*. Bat Research News, 54:17-24.

Grants, Academic & Professional Awards

2017 Plant Pathology & Environmental Microbiology (PPEM) Travel Grant $500
2016 Penn State Agricultural Council Youth Leadership Award
2016 Successful Research Crowdfunding, Experiment.com $4130

Project title- Sea turtle egg fusariosis: unraveling the biology of an emerging fungal pathogen

2016	Translation Mycology Award, Mycological Society of America (MSA)	$2500
2016	Plant Pathology Graduate Studies Enhancement Award	$1000
2015	John W. Rippon Research Award in Medical Mycology, MSA	$500
2015	Henry Popp Award, Department of PPEM, Penn State University	
2014	Honorable Mention, NSF Graduate Research Fellowship Program	
2014	College of Agricultural Sciences Travel Award, Penn State University	$300
2014	MSA Best Undergraduate Research Oral Presentation	
2014	Environmental Chemistry & Microbiology Symposium, 1st place presentation	
2013, 14	McKenna Fellowship Award, Penn State University	$1000
2013, 14	PASSHE Ali Zaidi Award Finalist, Lock Haven University	
2011–13	NOAA Hollings Scholarship Program, SCRIPPS Institute of Oceanography	
2012	Commonwealth of PA University Biologists Research Grant	$500
2012	Commonwealth of PA University Biologists Outstanding Student Award	

Professional & Research Experience

2017–	Morel Culture Preservation Project, PPEM, Penn State University
2015–	Diversity, ecology and epidemiology of *Fusarium* species in coastal environments and their association with sea turtle nest fouling, Penn State University
2013–	Development of an *in vitro* model for characterization of biofilm formation in phylogenetically and ecologically diverse *Fusarium* species, Penn State University
2013–	Sink drains to sea turtle eggs: unraveling the ecology and epidemiology of infectious fusaria in humans and animals, Penn State University
2013–	Taxonomic description of the marine animal pathogenic fungus, *Fusarium solani* Species Complex phylogenetic species 12, Penn State University
2013	Morphological and molecular identification of fungal isolates from common marine sponges collected along the Virginia coast, Lock Haven University
2012	The alternative host hypothesis and potential virulence genes in *G. destructans,* Lock Haven University
2012	Re-visiting the relationship between environmental variables and the market squid (*Doryteuthis opalescens*), Hollings Scholarship Program

Conference Presentations

2017	**Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the biology of an emerging fungal pathogen. Mycological Society of America Meeting, Athens, GA, USA
2016	**Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the biology of an emerging fungal pathogen. Allegheny Branch American Society for Microbiology Meeting, Penn State Behrend Campus, PA, USA.
2016	**Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the biology of an emerging fungal pathogen. Mycological Society of America Meeting, Berkeley, CA, USA.

2016 **Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the biology of an emerging fungal pathogen. Mid-Atlantic Mycology Conference, Penn State University, PA, USA.

2016 **Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Sink drains to sea turtle eggs: unraveling the biology of an emerging fungal pathogen. 19th Environmental Chemistry & Microbiology Student Symposium, Penn State University, PA, USA.

2015 **Smyth, C.W.**, J.M. Sarmiento-Ramírez, D.P.G. Short, J. Diéguez-Uribeondo, K. O'Donnell, & D.M. Geiser. Understanding the impact of the indoor vs. natural environments on population structure of two Fusarium species Implicated in human and animal infections. Mycological Society of America Meeting, Edmonton, AB

2014 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The alternative host hypothesis elucidates potential virulence genes in *Pseudogymnoascus destructans.* Mycological Society of America Meeting, East Lansing, MI, USA.

2014 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The alternative host hypothesis elucidates potential virulence genes in *Pseudogymnoascus destructans.*17th Environmental Chemistry & Microbiology Student Symposium, Penn State University, PA, USA.

2013 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The alternative host hypothesis elucidates potential virulence genes in *Pseudogymnoascus destructans.* Commonwealth of PA University Biologists Conference, Clarion, PA, USA.

2013 **Smyth, C.W.** & B.E. Overton. Identification of fungal isolates from common marine sponges collected along the Virginia coast. Commonwealth of PA University Biologists Conference, Clarion, PA, USA.

2013 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The alternative host hypothesis elucidates potential virulence genes in *Pseudogymnoascus destructans* Phi Kappa Phi Symposium, Lock Haven University, PA, USA.

2012 **Smyth, C.W.**, S. Schlesinger, B.E. Overton, & C. Butchkoski. The alternative host hypothesis elucidates potential virulence genes in *Pseudogymnoascus destructans* Phi Kappa Phi Symposium, Lock Haven University, PA, USA.

2012 **Smyth, C.W.**, & B.E. Overton. A descriptive study of the fungal diversity of the Great Lakes. Allegheny Branch American Society for Microbiology Meeting, Penn State University, PA, USA.

2012 **Smyth, C.W.**, & B.E. Overton. A descriptive study of the fungal diversity of the Great Lakes. National Collegiate Honors Conference, Boston, MA, USA.

2012 **Smyth, C.W.**, & S. McClatchie. Forecasting the market squid fishery in the California current ecosystem. NOAA Science & Education Symposium, Silver Spring, MD, USA.

Guest Presentations

2017 **Smyth, C.W.** Fungal Physiology, *Invited Lecture*, Millbrook Marsh Nature Center, State College, PA, USA.

2016 **Smyth, C.W.** Emerging Fungal Diseases in Wildlife, *Invited Lecture*, Chincoteague Bay Field Station, Wallops, VA, USA.

2016 **Smyth, C.W.** Emerging Fungal Diseases in Wildlife, *Invited Lecture*, Millbrook Marsh Nature Center, State College, PA, USA.

2016 **Smyth, C.W.** Intro to Plant Pathology: from the potato famine to the bananapoocalypse and beyond. *Invited lecture,* AG150: "Plant Science First Year Seminar," University Park, PA, USA.
2016 **Smyth, C.W.** Fantastic fungi & where to find them. *Invited presentation.* Science Café, Ecology Graduate Student Association, State College, PA, USA.
2016 **Smyth, C.W.** Emerging Fungal Diseases in Wildlife. *Invited lecture,* PPEM120, "Fungal Jungle," University Park, PA, USA.
2015 **Smyth, C.W.** Emerging Fungal Diseases in Wildlife. *Invited lecture,* PPEM120, "Fungal Jungle," University Park, PA, USA.

Selected Outreach

2017 STEM Educational Module Development Workshop: Fungal Biology and Biodiversity, Athens, GA
2016, 17 Microbe Mania 4H Outreach Event, Penn State University
2016 Plant Sciences Recruitment Day, Penn State University
2016 Earth Day Birthday, Millbrook Marsh Nature Center
2016 Harrisburg STEM Career Launch, Penn State Office of Multicultural Recruitment & Community Affairs
2014 Ag Progress Days, Penn State University
2014 Plant Pathology Discovery Night, PA Governor's School for Agricultural Sciences
2014 Student Mentor, PA Governor's School for Agricultural Sciences
2012 Program Coordinator, Children Actively Protecting the Environment, Americorps

Selected Service

2015–16 Publicity Committee, Environmental Chemistry & Microbiology Student Symposium
2015–16 Outreach Chair, Penn State Plant Pathology Association
2014–15 Co-Chair, Environmental Chemistry & Microbiology Student Symposium
2014–15 President, Penn State Plant Pathology Association
2013–14 Publicity Committee, Environmental Chemistry & Microbiology Student Symposium
2011–12 Head Microbiology Lab Assistant, Lock Haven University
2012 Phi Kappa Phi Student Vice President, Lock Haven University
2010–12 AmeriCorps Member in Service to PA, Lock Haven University

Professional Engagement

2017– Past Chair, MSA Student Section Executive Board
2016–17 Chair, MSA Student Section Executive Board
2016–17 Student Representative, MSA Program Committee
2015–16 Student Representative, MSA Environmental Health & Medical Mycology Committee
2015–16 Vice-chair, MSA Student Section Executive Board
2014–15 Webmaster, MSA Student Section Executive Board

Workshops

2014 *Invited participant*, Sequence-Based Classification of Fungi Workshop, Mycological Society of America, East Lansing, MI, USA.