

Andrew L. Loyd, PhD

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## Objective

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To pursue a career within the field of plant pathology and mycology, and continually enhance my knowledge and skill set as a scientist.

## Education

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### Doctor of Philosophy

2016-2018| Forest Resources and Conservation| University of Florida| Gainesville, FL

### Master of Science

2010-2012| Plant Pathology| North Carolina State University| Raleigh, NC

### Bachelor of Science

2006-2010| Plant and Soil Sciences| Louisiana State University| Baton Rouge, LA

## Job Experience

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2018-present| *Plant Pathologist*| **Bartlett Tree Research Laboratories**| Charlotte, NC

- Research topics related to the field of applied and basic plant pathology
- Diagnose diseases of woody plants and shrubs and identify species of wood decay fungi
- Lead the plant pathology sections of employee trainings, workshops and technical updates
- Plant pathology technical field support for Bartlett Arborists
- Develop the plant disease section of the Pest Management Recommendations Manuals
- Present and attend professional/society meetings to stay current in the field of plant pathology/mycology

2014-2016| *Plant Disease and Insect Diagnostician*| **Bartlett Tree Research Laboratories**| Charlotte, NC

- Diagnose plant health problems in a lab using microscopy, culturing, immunodetection and DNA barcoding
- Consult with arborists about plant pests and generate diagnostic reports
- Culture and maintain live cultures of fungi under aseptic conditions
- Present arboriculture topics to clients, arborists, spray technicians, etc.
- Setup and supervised molecular diagnostic lab

2012-2014| *Cooperative Extension Agent*| **LSU AgCenter Cooperative Extension Service**| New Orleans, La

- Consult the public on plant related concerns, and suggest unbiased, researched-based recommendations
- Diagnose plant health problems in the field, including plant diseases, insect damage, weed identification and nutritional deficiencies
- Coordinate the Louisiana Master Gardener and Master Naturalist Program

## Research Experience

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### **Jan. 2016-present | *Graduate Research Assistant* | UF School of Forest Resources and Conservation**

- Conduct research focusing on the taxonomy, ecology and biology of *Ganoderma* species
- Collect and curate herbarium specimens and cultures of *Ganoderma* and other wood decay fungi
- Design and conduct experiments related to the biology and physiology of *Ganoderma*
- Photography of fungal specimens (macro- and microscopic)

### **Jul. 2010-Dec. 2012 | *Graduate Research Assistant* | NCSU Department of Plant Pathology**

- Conduct applied research focusing on the risk associated with irrigating ornamental plants with water containing *Phytophthora* spp.
- Diagnose and identify diseases and pathogens of ornamental plants
- Conduct pathogenicity assays in field and laboratory
- Consult nursery growers regarding disease management

### **Fall 2009-Spring 2010 | *Student Research Assistant* | LSU Dept. Plant Pathology and Crop Physiology**

- Extract DNA and conduct PCR; identify isolates by DNA sequence
- Culture fungi under aseptic conditions
- Perform general lab maintenance
- Gather and organize literature

## Teaching Experience

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### **Bartlett Tree Research Laboratories Arborist and Plant Health Care Trainings: 2018-Present**

- Led plant pathology sections of arborist trainings for the Bartlett Tree Experts company
- Taught arborist about fundamental disease concepts and management

### **Univ. of Fla: “Take a Hike” (naturalist course for non-biology majors) | Teaching Assistant | Fall 2017**

- Organized and led guided hikes focusing on a variety of natural history lessons
- Graded assignments

### **Central Piedmont Community College: Integrated pest management of turfgrass | Instructor | Summer 2015**

- Create and give lectures and field exercises related to IPM

### **NC State: “Plant Disease: Methods and Diagnosis” | Teaching Assistant | Fall 2011**

- Organize plant disease diagnostic labs
- Present lectures on plant disease diagnostics

## Awards and Grants

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- International Society of Arboriculture Early Career Scientist Award (2022)
- Mycological Society of America's Clark T. Rogerson Award (2017)
- Most Outstanding Graduate Student in Extension (2017)
- Research Grant from the Florida Chapter International Society of Arboriculture (2016): \$90,000
- Plant Pathology Society of North Carolina Travel Award (2012)
- Louisiana State TOPS scholarship, LSU (2006-2010)

## Skills

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- Proficient in Microsoft Word, Excel and Powerpoint
- Self-motivated worker; working well with a team or as a leader
- Fast learner and enthusiastic about learning new things
- General knowledge of statistics, and familiarity with JMP and R
- Knowledge of molecular biology and systematics
- Applied Mycology

## Professional Organizations/Certifications

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American Phytopathological Society (APS); Mycological Society of America (MSA); International Society of Arboriculture (ISA)

ISA certified Arborist #SO-7367A; ISA Tree Risk Assessment Qualification; NCDA Pesticide Applicator License #026-37347 (ornamental & turf and research & demo)

## Volunteer work

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Invited Reviewer for CABI, Plant Disease, Phytopathology, Mycologia, Fungal Biology, Fungal Ecology, Journal of Fungi, Journal of Plant Pathology, Food Analytics Methods, Nature, International Society of Arboriculture and Taxon

Electronic Communication & Web Page Management Committee Member and Webmaster for the Mycological Society of America

Ornamental and Turf Section Editor for Plant Disease Management Reports from the American Phytopathological Society

## Publications

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C. Paez, N. Kraisitdomsook, J.A. Smith, **A.L. Loyd**, D. Lindner, M.E. Smith. 2022. Revising the taxonomic placement of *Laetiporus persicinus* within the Laetiporaceae. *Mycologia*. *In press*.

- S. Chakrabarti, **A.L. Loyd**, B. Dhillon. 2022. Multilocus, multiplex detection of *Ganoderma zonatum* from environmental samples. *Plant Disease*, (ja).
- Yang, X., V.L. Castroagudín, M. Daughtrey, **A.Loyd**, J.E. Weiland, N. Shishkoff, F. Baysal-Gurel, L. Santamaria, C. Salgado-Salazar, J. LaMondia, and J.A. Crouch. 2021. A Diagnostic Guide for Volutella Blight Affecting Buxaceae. *Plant Health Progress*, 22:578-590. doi.org/10.1094/PHP-02-21-0052-DG
- J. Skelton, **A. L. Loyd**, J.A. Smith, R.A. Blanchette, B.W. Held, & J. Hulcr. 2020. Fungal symbionts of bark and ambrosia beetles can suppress decomposition of pine sapwood by competing with wood-decay fungi. *Fungal Ecology*, 45, 100926. doi.org/10.1016/j.funeco.2020.100926
- A.L. Loyd** and C.N. Bechtel. 2019. First report of bacterial leaf scorch caused by *Xylella fastidiosa* on *Gleditsia triacanthos* var. *inermis* in Pennsylvania. *Plant Disease* 104(4):1249. doi.org/10.1094/PDIS-11-19-2336-PDN
- A.L. Loyd**, K.D. Chase, A. Nielson, N. Hoover, T.J. Dreaden, A.E. Mayfield, E. Crocker, and S.W. Fraedrich. 2019. First report of laurel wilt caused by *Raffaelea lauricola* on *Sassafras albidum* in Tennessee and Kentucky. *Plant Disease* 104(2):567. doi.org/10.1094/PDIS-09-19-1914-PDN
- A.L. Loyd** and R. A. Blanchette. 2019. Glossy with Grandeur: The laccate *Ganoderma* of North America. *FUNGI Magazine*, Spring 2019, 12(1):30-36
- A.L. Loyd**, E.R. Linder, M.E. Smith, R.A. Blanchette, and J.A. Smith. 2019. Culture characterization and chlamyospore function of the Ganodermataceae in the Eastern United States. *Mycologia* 111(1): 1-12. doi.org/10.1080/00275514.2018.1543509
- A.L. Loyd**. 2018. Taxonomy, Biology, Decay Potential, and Pathogenicity of the Laccate (Varnished) *Ganoderma* species Present in the U.S. PhD Dissertation. University of Florida, Gainesville, FL.
- A.L. Loyd**, E.R. Linder, N.A. Anger, B.S. Richter, R.A. Blanchette, and J.A. Smith. 2018. Pathogenicity of *Ganoderma* species on landscape trees in the southeastern United States. *Plant Disease* 102(10): 1944-1949. doi.org/10.1094/PDIS-02-18-0338-RE
- A.L. Loyd**, B.S. Richter, M.A. Jusino, C. Truong, M.E. Smith, R.A. Blanchette, and J.A. Smith. 2018. Identifying the “Mushroom of Immortality”: Assessing the *Ganoderma* Species Composition in Commercial Reishi Products. *Frontiers in Microbiology* 9. doi.org/10.3389/fmicb.2018.01557
- A. L. Loyd**, C. W. Barnes, B. W. Held, M. J. Schink, M. E. Smith, J. A. Smith, and R. A. Blanchette. 2018. Elucidating "lucidum": Distinguishing the diverse laccate *Ganoderma* species of the United States. *PloS One* 13(7): e0199738. doi.org/10.1371/journal.pone.0199738
- A.L. Loyd**, B.W. Held, E.R. Linder, J.A. Smith, and R.A. Blanchette. 2018. Elucidating wood decomposition by four species of *Ganoderma* from the United States. *Fungal Biology* 122 (4):254-263. Doi.org/10.1016/j.funbio.2018.01.006
- C. Newman, **A.L. Loyd**, J.A. Smith. 2018. First report of branch cankers caused by *Sphaerulina musiva* on *Populus purdomii* in the United States. *Plant Disease* 103(3): 583. doi.org/10.1094/PDIS-06-18-0928-PDN

- A.J. Gitto, S.N. Jeffers, L.S. Graney, **A.L. Loyd**, and C.N. Bechtel. 2018. First report of *Phytophthora occultans* causing root rot on American boxwood planted in residential landscapes in the eastern United States. *Plant Disease* 102 (11): p.2384. doi.org/10.1094/PDIS-04-18-0684-PDN
- A.L. Loyd** and J.A. Smith. 2018. First Report of Poplar Leaf Rust Caused by *Melampsora medusae* on *Populus mexicana* in the United States. *Plant Disease* 102 (10): p. 2033. doi.org/10.1094/PDIS-03-18-0416-PDN
- L. Graney, Wade H. Elmer, and **A. L. Loyd**. 2017. First Report of Fusarium Wilt of Yellowwood (*Cladrastis kentukea*) Caused by *Fusarium oxysporum* in the United States. *Plant Disease* 101.1: 258-258. doi.org/10.1094/PDIS-05-16-0644-PDN
- A.L. Loyd**, J. A. Smith, B. S. Richter, R. A. Blanchette and M. E. Smith. 2017. “The laccate *Ganoderma* of Southeastern United States: A cosmopolitan and important genus of wood decay fungi.” University of Florida IFAS Extension Bulletin. PP333
- X. Yang, Y. Balci, N. J. Brazee, **A. L. Loyd**, & C. X. Hong. 2016. A unique species in *Phytophthora* clade 10, *Phytophthora intercalaris* sp. nov., recovered from stream and irrigation water in the eastern USA. *Int. J. Syst. Evol. Microbiol.* 66(2), 845-855. doi.org/10.1099/ijsem.o.000800
- A.L. Loyd**, D.M. Benson and K. L. Ivors. 2014. *Phytophthora* populations in nursery irrigation water in relationship to pathogenicity and infection frequency of *Rhododendron* and *Pieris*. *Plant Disease* 98:1213-1220. doi.org/10.1094/PDIS-11-13-1157-RE
- A.L. Loyd**. 2013. The risks associated with irrigating woody ornamental plants with *Phytophthora*-infested water. M.S. Thesis. North Carolina State University, Raleigh, NC.
- A.L. Loyd**, K. L. Ivors, D. Milks, C. Holmberg, and L. W. Lacey. 2012. Evaluation of fungicides for controlling *Pseudoperonospora cubensis* (downy mildew) on cucumber. *Plant Dis. Man. Rep.*: 7:31.

## Recent Invited Presentations

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2022

- Georgia Arborist Association—Virtual (Feb)
- Boxwood blight epidemiology research group—Virtual (May)
- Mycological Society of America—Gainesville, FL (Jul)
- American Phytopathological Society—Pittsburgh, PA (Aug)

2021

- Northern Green: industry expo—Virtual (Jan)
- Virginia Department of Forestry—Virtual (Feb)
- Trees Virginia—Virtual (Mar)
- Beech Leaf Disease Symposium—Virtual (Apr)
- Trees Florida—Palm Coast, FL (June)
- American Public Garden Association—Virtual (Dec)

2020

Maryland Arborist Association—Ellicott City, MD (Jan)  
Chesapeake Green—Linthicum Heights, MD (Feb)  
Arborjet webinar—Virtual (Mar)  
American Public Garden Association—Virtual (May)  
Bur Oak Blight Symposium—Virtual (Sep)

2019

Maryland Arborist Association—Ellicott City, MD (Jan)  
Philadelphia Flower Show—Philadelphia, PA (Mar)  
New Jersey Association of Landscape Architects—New Jersey (May)  
Clemson Forest Health Webinar Series—Virtual (May)  
ISA Pen Del Chapter Meeting—Lancaster, PA (September)  
North Carolina IPM symposium—Asheville, NC (Oct)  
Trees SC Annual Meeting—Charleston, SC (Oct)

2018

International Congress of Mycology—San Juan, PR (Jul)  
Montgomeryville Forester Meeting—Montgomeryville, PA (Oct)  
Georgia Mushroom Club—Atlanta, GA (Oct)  
ISA Florida Chapter—Fort Walton Beach, FL (Dec)