

Emily J. Lesinski
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EDUCATION

University of Connecticut, Storrs, CT Expected graduation July 2027
Master of Science, Ecology and Evolutionary Biology
Wegryzn Plant Computational Genomics Lab

Purdue University, West Lafayette, IN 2021-2025
Bachelor of Science, Forestry; GPA: 3.7
Concentration in Forest Science

South Milwaukee High School, South Milwaukee, WI 2017-2021
AP/Honors Student; GPA: 4.0

RESEARCH EXPERIENCE

Purdue University Department of Forestry and Natural Resources

Research Assistant, February 2024-Present

Advisors: Dr. Anna Conrad, Dr. Matt Ginzel, Olivia Bigham

Research experience required for the Forest Science concentration part of my Forestry major.

Worked with a graduate student to identify a novel fungus associated with wilting sassafras (*Sassafras albidum*) in the Midwestern US. Performed inoculations, trapped and retrieved insects, cultivated fungi, and performed DNA extraction and PCR to gather genomic data. Used MEGA12, Notepad++, RStudio, and Figtree to perform phylogenetic analysis of this novel fungus.

University of Tennessee Knoxville (UTK) Explore BiGG Data REEU

Research Fellow, June 2024-July 2024

Advisors: Dr. Kimberly D. Gwinn, Dr. Scott Emrich

Conducted research on the effects of Hop Latent Viroid on *Cannabis sativa*. Used R Studio to analyze bioinformatic data from transcriptomic analysis based on RNA Sequencing, identifying genetic differences in infected versus healthy plants.

Purdue University Hardwood Tree Improvement and Regeneration Center

Research Assistant, October 2024-December 2024

Advisors: Dr. Aziz Ebrahimi

Assessed canopy dieback of butternut to determine the effects of hybridization of butternut with Japanese walnut on resistance to Thousand Cankers Disease.

Research Assistant, February 2023-May 2024

Advisors: Dr. Keith Woeste, Dr. Vikram Chhatre

Sampled black walnut plantings for genomic sequencing. Used R, Vim Text Editor, and Cervus to conduct population genomic data analysis of sequenced data and conduct parentage analysis using genetic markers.

Purdue University Plants and Games Lab, Department of Botany and Plant Pathology

Research Assistant, August 2022-December 2022

Advisors: Dr. Gord McNickle, Dr. Kliffi Blackstone

Performed dendrochronological analysis using Coorecorder and Cdendro on data collected from maple, cherry, and oak trees while studying the effects of species variation and spacing on tree growth and productivity. Collected soil, vegetation samples, and weighed plant material for future research.

ACADEMIC ACCOMPLISHMENTS

Fulbright U.S. Student Program Semifinalist (2025-2026)

Purdue Semester Honors (Fall 2021-Spring 2025)

Purdue Dean's List (Fall 2021-Spring 2025)

Purdue Nonresident Presidential Scholarship Recipient (2021-2025)

Roy C Brundage Memorial Scholarship Recipient (2024-2025)

Glenn R Allison Scholarship Recipient (2024-2025)

Leonard Purdue Musical Organizations Scholarship Recipient (2024-2025)

W and B Jennings Scholarship Recipient (2024-2025)

Walter F. Beineke Scholarship Recipient (2024-2025)

Martell Scholarship Recipient (2023)

Purdue Summer Scholarship Recipient (2023)

Pike Lumber Company Scholarship Recipient (2023-2024)

Claude M. Gladden Memorial Scholarship Recipient (2022)

Women of AT&T National Scholarship Recipient (2021-2022)

Purdue Forestry Scholarship Recipient (2021-2022, 2023-2024)

South Milwaukee High School Valedictorian (2021)

Woodland Conference Academic All-Conference Award (2021)

National Merit Scholarship Program Letter of Recommendation (2021)

PUBLICATIONS/PRESENTATIONS

Posters

Burtch, A., Lesinski, E., et al. (2024). *The Root of the Problem: Hop Latent Viroid Alters Metabolism of Cannabis sativa*. Presented at the UTK Summer Research Scholars Symposium 2024.

Lesinski, E., Bigham, O., et al. (2025). *A molecular phylogeny of Ophiostoma sp. associated with wilting sassafras*. Presented at the Purdue Department of Forestry and Natural Resources Annual Poster Competition 2025.

LEADERSHIP/SERVICE

Purdue Department of Forestry and Natural Resources (FNR) Undergraduate Student Council

Treasurer, August 2023-August 2024

Managed the club budget and collaborated with council members to represent the undergraduate student body in department decisions. Responsible for working with vendors to organize an apparel sale and distribute merchandise to students.

Vice President, August 2024-May 2025

Coordinated events for the FNR community, including fall and spring gatherings, exam-preparation sessions, and general social events. Handled communication for the council regarding scheduling matters and trained my replacement as treasurer.

Purdue Electronic and New Media Art Club

Treasurer, March 2022-May 2023

Managed a budget of over \$15,000 while collaborating with other club members to complete a project by the grant's deadline. That project, *A Warm Light for All*, was featured during Purdue's 2022 "Boiler Gold Rush" welcome week.

MEMBERSHIP

American Phytopathological Society (2024-2025)

Society of American Foresters (2021-2025)

Alpha Lambda Delta Honor Society (2021-Present)

Phi Eta Sigma Honor Society (2021-Present)

Purdue Student Society of Arboriculture (2021-2023)

Purdue Bands and Orchestras (2021-2023)

TECHNICAL SKILLS

Computational: Rstudio, MEGA12, FigTree, ArcGIS Pro, ERDAS Imagine, FVS Legacy, Cdendro, Coorecorder, MicroCapture Pro, Notepad++, Vim Text Editor (beginner).

Field: Pole pruners, brush saw, chainsaw, clinometer, Biltmore stick, compass, field GPS, map navigation, basal area prism, angle gauge, laser hypsometer, point and fixed area sampling.

Wet Lab: DNA extraction and purification, Polymerase Chain Reaction (PCR), gel electrophoresis, pathogen inoculation with agar gel and microcentrifuge mixtures, pathogen identification with ImmunoStrip tests and buffer bags, dissection of plant material.