

Jacob D. J. Peters

CONTACT INFORMATION

360 Prospect St
The Forest School at the Yale School of the Environment
New Haven, CT 06511

jacob.peters@yale.edu
[website](#)
1-276-219-1757

EDUCATION

Ph.D., Remote Sensing and Applied Forest Ecology, May 2028
Yale School of the Environment, New Haven, CT, USA

Dissertation Advisor: Profs. Mark Ashton and Xuhui Lee

Dissertation Title: *Temperate liana distributions, impacts, and remote sensing*

M.S., Biology, James Madison University, Harrisonburg, VA, USA May 2020

Honors: *Summa cum laude*, outstanding first year graduate student

Thesis Advisor: Dr. Heather Griscom

B.S., Environmental Science, UVA at Wise, Wise, VA, USA May 2018

Honors: *Magna cum laude*, Joseph C. Smiddy Outstanding Scientist Award

EMPLOYMENT

Teaching Fellow, Yale University, New Haven, CT, USA January 2024–Present

Geospatial Consultant, Yale University, New Haven, CT, USA August 2023–August 2025

Adjunct Instructor, Ecology, James Madison University, January 2022–May 2022
Weyers Cave, VA, USA

Adjunct Instructor, Biology, Blue Ridge Community College, August 2020–May 2022
Weyers Cave, VA, USA

GIS Intern, Smithsonian Conservation Biology Institute, March 2021–December 2021
Front Royal, VA, USA

Teaching Assistant, James Madison University, August 2018–May 2020
Harrisonburg, VA, USA

Vegetation Survey Crew Lead, The Pennsylvania State University, May 2018–July 2018
State College, PA, USA

Assistant Ecological Steward, UVA at Wise, Wise, VA, USA November 2016–May 2018

Park Ranger Career Path Intern, Virginia State Parks, USA May 2015–August 2016

RESEARCH INTERESTS

My research interests revolve around using big data, traditional field methods, and remote sensing to study a range of forest phenomena. I currently study temperate liana (woody vine) ecology, impacts, and distributions using field experiments as well as satellite and UAV remote sensing. I am testing the effect of releasing temperate forests from lianas, creating large scale species distribution models for lianas using Google Earth Engine, and quantifying liana abundance from UAV LiDAR and multispectral imagery using machine learning and artificial intelligence. Additional interests include silviculture, agroforestry, urban forestry, forest restoration, microclimates, and forest regeneration.

HONORS AND
AWARDS

Student presentation winner (2nd) , Society of American Foresters Natl. Convention	2025
Best doctoral student presentation , Yale School of the Environment Research Day	2023
Outstanding first-year graduate student , James Madison University	2019
Three Minute Thesis People's Choice Award , James Madison University	2019
Joseph C. Smiddy Outstanding Scientist Award , UVA at Wise	2018

GRANTS AND
SCHOLARSHIPS

\$5,000 — Yale Center for Geospatial Solutions Affiliated Students Grant	2025
\$20,000 — Childs Forestry Research Fund, The Forest School at the Yale School of the Environment	2024
\$200,000 — Yale Center for Natural Carbon Capture, Yale School of the Environment	2022
\$1,000 — Norlyn L. Bodkin Botany Scholarship, James Madison University	2019

TEACHING
EXPERIENCE

Teaching Fellow , Yale School of the Environment	
ENV 660, Forest Dynamics	Fall 2025
Yale Geographic Information Systems Accelerator	Springs 2024–2025
ENV 726, Observing Earth From Space	Springs 2024–2025
ENV 955, Seminar in Research Analysis & Communication in Forest Ecology	Spring 2024
Guest Lectures , Yale School of the Environment	
ENV 704, Workshop on Remote Sensing and Photogrammetry with Drones	Fall 2023, Fall 2024
ENV 955, Seminar in Research Analysis & Communication in Forest Ecology	Spring 2024
Adjunct Instructor , James Madison University	
BIO 250L, Quantitative Ecology and Evolution Lab	Spring 2022
Adjunct Instructor , Blue Ridge Community College, VA	
BIO 101, General Biology I	Fall 2020–Spring 2022
Teaching Assistant , James Madison University	
BIO 140L, Foundations of Biology Lab	Fall 2018–Spring 2020

MENTORING/
SUPERVISION

Graduate students	
Louis Cimmino, Yale School of the Environment	Fall 2025–Present
Kumba Jammeh, Yale School of the Environment	Fall 2024–Present
Nate McMullen, Yale School of the Environment	Fall 2024–2025
Jackson Cooper, Yale School of the Environment	Summer 2024–2025
Cindy Cifuentes, Yale School of the Environment	Summer 2024–2025
Yeim We, Yale School of the Environment	Summer 2024
Sangam Paudel, Yale School of the Environment	Summer 2024

Michael Freiburger, Yale School of the Environment

Fall 2022–Spring 2023

Undergraduate students

Riley Johnson, Washington College, MD

Summer 2024

Emilie Fowler, James Madison University, VA

Fall 2018–2019

Zachary Warning, SUNY ESF, NY

Summer 2018

Kaj Overturf, University of Maine, ME

Summer 2018

Rosa Kome, Clemson University, SC

Summer 2018

MEMBERSHIPS

President, UVa-Wise Environmental Club

Spring 2017–2018

Darden Society member

2016–Present

COMPUTER SKILLS

Languages—Expert in R. Proficient in Javascript, Bash, Python, Git.
Markup languages: \LaTeX , HTML, Markdown.**Software**—ArcGIS, QGIS, ENVI, Google Earth Engine, Agisoft Metashape, OpenDroneMap, DJI Terra, R, Adobe Photoshop and Illustrator, GIMP, Inkscape, Microsoft Suite.**Operating systems**— Windows, Mac OS, Linux.PUBLICATIONS IN
PROGRESS

7. **Peters, J.D.J.**, Grant Connette, Xuhui Lee, Bronson W. Griscom, P. Mark Ashton (2025) *North American Liana Distributions Highlight Significant Opportunities for Improved Carbon Sequestration*.

PUBLICATIONS

6. Freiburger, M., Danica Doroski, Colleen M. Dunning, P. Mark Ashton, **Jacob D. J. Peters** (2025) *The 10/20/30 Planting Rule Aligns with Traditional Plant Diversity Metrics across Spatial Scales, Urban Forestry and Urban Greening* 114.
5. Schnitzer, Stefan A., Begüm Kaçamak, Isaac Zombo, et al., including **Jacob D. J. Peters** ... (2025) *The Search for Champion Lianas: The Largest Lianas on Six Continents.*, *Biotropica* 57(6).
4. **Peters J.D.J.**, J.M. Portmann, B.W. Griscom (2023) *Lianas (Vitis spp.) reduce growth and carbon sequestration of light-demanding tree species in a temperate forest*, *Restoration Ecology* 31(5), 1-10.
3. **Peters J.D.J.**, H. Griscom (2021) *Highlighting an overlooked hotspot for American ginseng (Panax quinquefolius L.) in Virginia*, *Natural Areas Journal* 42(2), 209-119.
2. **Peters J.D.J.**, S. Schoen, M. Rhodes, H. Griscom (2021) *Up Smith Creek without a paddle: a case study on the barriers to stream restoration assessment*, *Journal of Ecological Restoration* 39(3), 151-155. [Alternative link to avoid paywall](#).
1. **Peters J.D.J.**, R. Huish, D. Taylor, B. Munson (2020) *Comparative Analysis of Four Maple Species for Syrup Production in South-Central Appalachia*, *Journal of Agriculture, Food Systems, and Community Development* 9(2), 267-276.

INVITED TALKS

1. Yale Environmental Training Initiative's Forest Monitoring Workshop June 2025
2. Smithsonian Conservation Biology Institute's Conservation Ecology Center January 2025
3. "Upgoer 5" at Yale School of the Environment Research Day April 2023
4. Smithsonian Conservation Biology Institute's Conservation Ecology Center August 2021
5. Research Day, University of Virginia's College at Wise April 2018
6. Virginia Master Naturalists, Clinch Valley Chapter December 2017

- | | |
|--|---------------|
| 7. Clinch River Valley Initiative Youth Summit | March 2017 |
| 8. Letcher Co. KY Maple School | December 2016 |

CONTRIBUTED
TALKS
(SELECTED)

- | | |
|---|----------------|
| 1. Society of American Foresters National Convention | October 2025 |
| 2. New England Society of American Foresters Annual Meeting | March 2025 |
| 3. Yale Center for Geospatial Solution Affiliated Students Luncheon | October 2024 |
| 4. Yale Center for Natural Carbon Capture Showcase | September 2024 |
| 5. Yale Center for Natural Carbon Capture Showcase | October 2023 |
| 6. Yale School of the Environment Research Day | April 2023 |
| 7. Annual Conference for the Assoc. of Southeastern Biologists | April 2019 |
| 8. Annual Conference for the Assoc. of Southeastern Biologists | March 2018 |
| 9. Annual North American Agroforestry Conference | April 2017 |
| 10. National Conference on Undergraduate Research | April 2017 |
| 11. Annual Conference for the Assoc. of Southeastern Biologists | March 2017 |
| 12. Annual Conference Society of Economic Botany | June 2016 |
| 13. National Conference on Undergraduate Research | April 2016 |

REFERENCES

Dr. P. Mark Ashton, Professor of Silviculture and Director of Yale Forests, Yale School of the Environment

email: mark.ashton@yale.edu

office phone: 203-432-9835

Dr. Xuhui Lee, Professor of Meteorology, Yale School of the Environment

email: xuhui.lee@yale.edu

office phone: 1-203-432-6271

Dr. Heather Griscom, Professor of Biology, James Madison University

email: griscoh@jmu.edu

office phone: 1-540-568-5525

Dr. Ryan Huish, Associate Professor of Biology, University of Virginia's College at Wise

email: rdh5b@uvawise.edu

office phone: 1-814-883-2069