

Jacob D. J. Peters

CONTACT INFORMATION

360 Prospect St
The Forest School at the Yale School of the Environment
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RESEARCH INTERESTS

My research involves studying a range of forest phenomena at varying scales to inform forest management and climate smart forestry by combining in situ forest measurements and experiments with big data techniques and remote sensing. I currently study temperate liana (woody vine) ecology, impacts, management feasibility and benefits, and distributions using field experiments as well as satellite and UAV remote sensing. I am also involved in guiding several projects with our masters of forestry and PhD students. These projects range from mapping and understanding biomass changes in forest fragments surrounding cocoa plantations in Ghana, understory regeneration in teak plantations in Ghana, Sal forest cover change in Bangladesh, the effect of fuel reduction treatments on wildfire severity in California, and street tree diversity in urban canopies of New England.

EDUCATION

Ph.D., Remote Sensing and Applied Forest Ecology, May 2027
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., Forest Ecology, 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

Drone Remote Sensing (ENV 704) Consultant, Yale August 2024–December 2024
University, New Haven, CT, USA

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**

HONORS, AWARDS, AND SERVICE

Graduate Student Representative, Yale School of the Environment Faculty Search Committee **2025**

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**

\$525,495 — Yale School of the Environment Doctoral Fellowship **2022–2027**

\$200,000 — Yale Center for Natural Carbon Capture, Yale School of the Environment **2022**

\$3,000 — James Madison University Biology Department Summer Support Award **2019**

\$1,000 — Norlyn L. Bodkin Botany Scholarship, James Madison University **2019**

\$48,000 — James Madison University Graduate Teaching Fellowship **2018–2020**

TEACHING EXPERIENCE

Teaching Fellow, Yale School of the Environment

ENV 659, The Practice of Silviculture: Principles in Applied Forest Ecology **Spring 2026**

ENV 660, Forest Dynamics **Fall 2025**

Yale Geographic Information Systems Accelerator **Spring 2024, 2025, 2026**

ENV 726, Observing Earth From Space **Spring 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

Member, Society of American Foresters	2025–Present
Member, Yale Graduate Student Forestry Club	2023–Present
Member, Yale Center for Geospatial Solutions Affiliated Students	2024–Present
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, Cloud Compare, R, Adobe Photoshop and Illustrator, GIMP, Inkscape, GitHub, Microsoft Suite.

Operating systems— Windows, Mac OS, Linux.

**PUBLICATIONS IN
PROGRESS**

5. **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*. In Revision, Diversity and Distributions.
4. Nyanzu, B. A., Kumba Jammeh, David Woodbury, **Jacob D. J. Peters**, Hugh C. A. Brown, and P. Mark Ashton (2026) *Assessing the composition and structural degradation of tropical forest fragments within a cocoa-based agricultural landscape*. In Revision.
3. Jammeh, K., P. Mark Ashton, **Jacob D. J. Peters** (2026) *Assessment of Tree Growth Responses Following Liana Removal in Urban Woodlands*. In Preparation.
2. **Peters, J. D. J.**, David Woodbury (2026) *Forest fuels management effect on wildfire severity in the United States*. In Preparation.

PUBLICATIONS

1. Jammeh, K., Bernard A. Nyanzu, P. Mark Ashton, **Jacob D. J. Peters**, and Hugh C.A. Brown (2026) *Assessing the understory vegetation of teak (Tectona grandis) in relation to plantation age and ownership Ghana*. In Preparation.
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 (2022) *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

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| 9. Yale Center for Geospatial Solutions' Website Building Workshop | December 2025 |
| 8. Yale Environmental Training Initiative's Forest Monitoring Workshop | June 2025 |
| 7. Smithsonian Conservation Biology Institute's Conservation Ecology Center | January 2025 |
| 6. "Upgoer 5" at Yale School of the Environment Research Day | April 2023 |
| 5. Smithsonian Conservation Biology Institute's Conservation Ecology Center | August 2021 |
| 4. Research Day, University of Virginia's College at Wise | April 2018 |
| 3. Virginia Master Naturalists, Clinch Valley Chapter | December 2017 |
| 2. Clinch River Valley Initiative Youth Summit | March 2017 |
| 1. Letcher Co. KY Maple School | December 2016 |

CONTRIBUTED
TALKS
(SELECTED)

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

REFERENCES

Dr. Mark S. 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. Joseph Orefice, Lecturer & Director of Forest & Agricultural Operations, Yale School of the Environment

email: joseph.orefice@yale.edu

office phone: 1-518-354-3170

Dr. Heather Griscom, Professor of Biology & Associate Unit Head, James Madison University

email: griscoh@jmu.edu

office phone: 1-540-568-5525