

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
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, Yale School of the Environment, New Haven, CT, USA	May 2027
	Dissertation Advisor: Profs. Mark Ashton and Xuhui Lee	
	Dissertation Title: <i>Temperate liana distributions, impacts, and remote sensing</i>	
	M.S., Forest Ecology, James Madison University, Harrisonburg, VA, USA	May 2020
	Honors: <i>Summa cum laude</i> , outstanding first year graduate student	
	Thesis Advisor: Dr. Heather Griscom	
	B.S., Environmental Science, UVA at Wise, Wise, VA, USA	May 2018
	Honors: <i>Magna cum laude</i> , 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 University, New Haven, CT, USA	August 2024–December 2024
	Geospatial Consultant, Yale University, New Haven, CT, USA	August 2023–August 2025
	Adjunct Instructor, Ecology, James Madison University, Weyers Cave, VA, USA	January 2022–May 2022
	Adjunct Instructor, Biology, Blue Ridge Community College, Weyers Cave, VA, USA	August 2020–May 2022
	GIS Intern, Smithsonian Conservation Biology Institute, Front Royal, VA, USA	March 2021–December 2021
	Teaching Assistant, James Madison University, Harrisonburg, VA, USA	August 2018–May 2020
	Vegetation Survey Crew Lead, The Pennsylvania State University, State College, PA, USA	May 2018–July 2018

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
Kumba Jammeh, Yale School of the Environment
Nate McMullen, Yale School of the Environment
Jackson Cooper, Yale School of the Environment
Cindy Cifuentes, Yale School of the Environment
Yeim We, Yale School of the Environment
Sangam Paudel, Yale School of the Environment
Michael Freiburger, Yale School of the Environment

Fall 2025–Present
Fall 2024–Present
Fall 2024–2025
Summer 2024–2025
Summer 2024–2025
Summer 2024
Summer 2024
Fall 2022–Spring 2023

Undergraduate students

Riley Johnson, Washington College, MD
Emilie Fowler, James Madison University, VA
Zachary Warning, SUNY ESF, NY
Kaj Overturf, University of Maine, ME
Rosa Kome, Clemson University, SC

Summer 2024
Fall 2018–2019
Summer 2018
Summer 2018
Summer 2018

MEMBERSHIPS

Member, Society of American Foresters
Member, Yale Graduate Student Forestry Club
Member, Yale Center for Geospatial Solutions Affiliated Students
President, UVa-Wise Environmental Club
Darden Society member

2025–Present
2023–Present
2024–Present
Spring 2017–2018
2016–Present

COMPUTER SKILLS

Languages—Expert in R. Proficient in Javascript, Bash, Python, Git.
Markup languages: L^AT_EX, 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.

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.

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 (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

- | | |
|---|---------------|
| 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)

- | | |
|--|----------------|
| 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](tel: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](tel: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](tel:1-518-354-3170)

Dr. Heather Griscom, Professor of Biology & Associate Unit Head, James Madison University
email: griscohp@jmu.edu
office phone: [1-540-568-5525](tel:1-540-568-5525)