

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, Yale School of the Environment, New Haven, CT, USA Dissertation Advisor: Profs. Mark Ashton and Xuhui Lee Dissertation Title: <i>Temperate liana distributions, impacts, and remote sensing</i>	May 2028
	M.S., Biology , James Madison University, Harrisonburg, VA, USA Honors: <i>Summa cum laude</i> , outstanding first year graduate student Thesis Advisor: Dr. Heather Griscom	May 2020
	B.S., Environmental Science , UVA at Wise, Wise, VA, USA Honors: <i>Magna cum laude</i> , Joseph C. Smiddy Outstanding Scientist Award	May 2018
EMPLOYMENT	Teaching Fellow , Yale University, New Haven, CT, USA Geospatial Consultant , Yale University, New Haven, CT, USA	January 2024–Present 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
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
- 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

- President, UVa-Wise Environmental Club**
- Darden Society member**

- 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, 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)*, 209-219.
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](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. Heather Griscom, Professor of Biology, James Madison University
 email: griscohp@jmu.edu
 office phone: [1-540-568-5525](tel: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](tel:1-814-883-2069)