

## Karen V. Pham

Department of Geosciences

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### Education

- 2020 – Present      Ph.D candidate, Geosciences; expected graduation: spring 2025  
Pennsylvania State University, University Park  
Advisor: Dr. Sarah J. Ivory  
Project: Climate, Megafaunal Extinction, and Human Interactions Shape  
Seed Sizes of Large-Seeded Plants in Madagascar
- 2016 – 2020      B.S., Geology  
California Institute of Technology
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### Articles and Publications

- [*in review*] **Pham KV**, Liow LH, and Ivory SJ. “Climate selects for diverging palm seed sizes in Madagascar and mainland Africa.”
- Randolph C, Davis D, Anyanwu C, **Pham K**, Buffa D, Creswell E, Ibiroga A, and Douglass K. “Indigenous knowledge is key to a sustainable future.” Penn State Institutes of Energy and the Environment (IEE) Blog. (2022) <https://iee.psu.edu/news/blog/indigenous-knowledge-key-sustainable-future>.
- Saupe EE, Farnsworth A, Lunt DJ, Sagoo N, **Pham KV**, Field DJ. “Climatic shifts drove major contractions in avian latitudinal distributions throughout the Cenozoic.” PNAS. 2019; 116 (26): 12895-12900.
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### Meeting Abstracts

- Pham KV**, Liow LH, Ivory SJ. “Impacts of Miocene Climate Change on Palm Trait Evolution in Madagascar and Mainland Africa.” *GSA Connects*. Oral. Portland, OR (2021).
- Pham KV**, Field DJ, Hsiang AY, Sagoo N, Farnsworth A, Lunt DJ, Saupe EE. “Ecological Niche Modeling of Birds Through Time: A Comparison of Maxent Against Other Algorithms.” *GSA Annual Meeting*. Poster. Indianapolis, IN (2018).
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### Fellowships and Funding

- Aug 2022      Hiroshi and Koya Ohmoto Graduate Fellowship in Geosciences (\$1,300)
- Jun 2022      Shell Geosciences Energy Research Facilitation Award (\$2,200)
- Jun 2022      GSA/NSF Graduate Student Research Grant (\$2,500)
- May 2022      Paleontological Society Rodney M. Feldmann Research Grant (\$1,200)
- Apr 2022      Penn State Center for Land Dynamics Research Grant (\$2,000)
- Sep 2021      Geological Society of America Kenneth N. Weaver Travel Award (\$300)
- Sep 2021      Association for Women Geoscientists Sand Travel Award (\$500)
- Jan – Aug 2021      Fulbright Fellowship, Research – Norway (140,000 NOK)
- 2020 – 2025      NSF Graduate Research Fellowship (\$34,000 x 3 years)

2020 Penn State University Graduate Fellowship (\$30,000)  
2020 Penn State Fund for Excellence in Graduate Recruitment Award (\$5,000)  
2019 – 2020 Mellon Mays Undergraduate Fellowship

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### **Honors and Awards**

2022 1<sup>st</sup> Place Pre-Comps Talk at the Geosciences Grad Colloquium, *Penn State*  
2021 Best Oral Presentation by a student member of the Geobiology and Geomicrobiology Division at the Geological Society of America Meeting  
2021 Best Presentation by a PhD Student at the Centre for Ecological and Evolutionary Synthesis Student Conference, *University of Oslo*  
2021 2<sup>nd</sup> Place Poster at the Geosciences Grad Colloquium, *Penn State*

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### **Professional and Research Experience**

Aug – Sept 2022 Participant of Analytical Pal(a)eobiology Workshop, Erlangen, Germany  
3-week workshop on quantitative methods in R focused on: geometric morphometrics, GIS basics, global and community diversity dynamics, capture-mark-recapture, phylogenetics, and niche modeling

Aug 2022 Collections Intern, Denver Museum of Nature and Science, Denver, CO  
3-week internship working with Madagascar paleobotany collection  
Curated > 400 Late Cretaceous leaf and wood fossil specimens  
Morphotyped ~100 Late Cretaceous leaf specimens

Jan – Aug 2021 Fulbright Visiting Researcher, Natural History Museum in Oslo, Norway  
Advisor: Dr. Lee Hsiang Liow  
Project: Modeling seed size evolution in Afrotropical palms

Fall 2020 Quarter-long undergraduate exchange program, University of Chicago

2019 – 2020 Undergraduate Research Fellow, Caltech, Pasadena, CA  
Advisor: Dr. George R. Rossman  
Project: Identifying minerals using a neural network

2018 Visiting Researcher, University of Oxford, England  
Advisor: Dr. Erin E. Saupe  
Project: Modeling ecological niches of bird clades through time

2017 Undergraduate Research Fellow, Caltech, Pasadena, CA  
Advisor: Dr. Simona Bordoni  
Project: Predicting onset and withdrawal of the West African monsoon

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### **Teaching Experience**

2018 – 2020 Teaching Assistant, Ge1: Earth and Environment (x3 quarters)  
2018 Dean's Tutor, Ge114a: Mineralogy

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## **Mentorship and Advising**

- 2022 – Present Senior Thesis: Eathan Gottshall, *Morphological Variability of Malagasy Canarium Endocarps from the Holocene*. Penn State University
- 2021 – 2022 Senior Thesis: Jacob J. Manion, *The Impact of Megafaunal Extinction on Vegetation in Madagascar over the last 5,000 years*. Penn State University.
- 2020 – Present Mentor for Undergraduate Woman Geoscientist Association for Women Geoscientists (AWG) at Penn State
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## **Outreach and Extracurricular Activities**

- 2022 – Present Steering Committee Member  
AAPIiG (Asian Americans and Pacific Islanders in Geosciences)
- 2022 Test Writer for Green Generation Event (Middle and High School)  
Science Olympiad: Southern California State and USA National (virtual)
- 2022 Co-Chair of Prospective Graduate Student Welcoming Committee  
Penn State Department of Geosciences
- 2021 – 2022 Outreach Co-Coordinator  
Association for Women Geoscientists (AWG) at Penn State
- 2020 – Present Grad Facilitator for Queer Undergrad Students of Color Discussion Group  
Penn State Center for Sexual and Gender Diversity
- 2016 – 2020 Volunteer Coordinator and State Tournament Director (2018, 2019)  
Science Olympiad: Los Angeles Regional and Southern California State
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## **Additional Information**

**Technical Skills:** R, Python, NCL (NCAR Command Language), ecological niche modeling (ENM), shell scripting, neural networks, Microsoft Office

**Languages:** English (native), Vietnamese (native), Norwegian (basic)

**Hobbies:** learning electric bass, cooking, cross-stitching, jigsaw puzzles, board games