

## Peter J. Williams

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### Appointments

<b>Postdoctoral research associate</b>	2022–Current
Michigan State University	East Lansing, MI
<ul style="list-style-type: none"> <li>• Department of Integrative Biology</li> <li>• Institute of Biodiversity, Ecology, Evolution, and Macrosystems</li> <li>• Advisor: Elise F. Zipkin</li> </ul>	

### Education

<b>Ph.D. Ecology and Evolution</b>	2016–2021
University of Montana	Missoula, MT
<ul style="list-style-type: none"> <li>• Advisor: Jедедиа F. Brodie</li> <li>• Dissertation title: <i>Tropical Plant-Animal Interactions: Linking Defaunation with Seed Predation, and Resource-Dependent Co-Occurrence</i></li> </ul>	
<b>B.S. Ecology, Evolution, and Behavior</b> , Summa Cum Laude	2010–2014
University of Minnesota, Twin Cities	Minneapolis, MN
<ul style="list-style-type: none"> <li>• Minor in Asian Languages &amp; Literatures (Chinese track)</li> <li>• Minor in Music</li> </ul>	

### Peer reviewed publications (6 first-authored)

13. Shabani, A, A Granados, **PJ Williams**, MAF Suis, CT Tappa, AYC Chung, & JF Brodie (*in press*) Frugivores flock, but do carnivores follow? Multitrophic responses to masting in a tropical rainforest. *Oecologia*.
12. **Williams, PJ**, EF Zipkin, A González-Melo, B Salgado-Negret, R González-M, N Norden, JP Benavides-Tocarruncho, JM Cely, JA Ferrer, D García-Villalobos, F Garzón, Á Idárraga-Piedrahita, R López-Camacho, E Moreno, J Nieto, C Pizano, J Puentes, EN Pulido-R, K Rivera, F Rojas-Bautista, V Salinas, JF Solorzano, & MN Umaña (2026) Ontogenetic shifts in wood anatomy and leaf traits in tropical dry forests. *New Phytologist*. 249:848–859.
11. **Williams, PJ** & SR Curley (2025) Functional and phylogenetic convergence of winter and breeding bird communities in the Northeastern United States. *Ecography* 2025:e07717.
10. Zipkin, EF, **PJ Williams** (2025) Revealing species responses to environmental change through long-term data and mechanistic frameworks. *Journal of Animal Ecology* 94:2155–2158.
9. Youngflesh, C, K Kaspar, A Uscanga, **PJ Williams**, J Doser, L Kounta, & PL Zarnetske (2025) Environmental variability shapes life history of the world's birds. *Ecology Letters* 28:e70077.
8. Burns, P, Z Kaszta, SA Cushman, JF Brodie, CR Hakkenberg, P Jantz, M Deith, MS Luskin, JGC Ball, J Mohd-Azlan, DFRP Burslem, SM Cheyne, I Haidir, AJ Hearn, E Slade, **PJ Williams**, DW Macdonald, & SJ Goetz (2025) The utility of dynamic forest structure from GEDI lidar fusion in tropical mammal species distribution models. *Frontiers in Remote Sensing* 6:1563430.
7. **Williams, PJ**, EF Zipkin, & JF Brodie (2024) Deep biogeographic barriers explain divergent global vertebrate communities. *Nature Communications* 15:2457.
6. Gilbert, NA, BR Amaral, OM Smith, **PJ Williams**, S Ceyzyk, S Ayebare, KL Davis, W Leuenberger, JW Doser, & EF Zipkin (2024) A century of statistical Ecology. *Ecology* 105:e4283.

5. **Williams, PJ** & JF Brodie (2023) Predicting how defaunation-induced changes in seed predation and dispersal will affect tropical tree populations. *Conservation Biology* 37:e14014.
4. Brodie, JF, J Mohd-Azlan, C Chen, OR Wearn, MCM Deith, JGC Ball, EM Slade, DFRP Burslem, SW Teoh, **PJ Williams**, A Nguyen, JH Moore, SJ Goetz, P Burns, P Jantz, CR Hakkenberg, ZM Kaszta, S Cushman, D Coomes, OE Helmy, G Reynolds, JP Rodriguez, W Jetz, & MS Luskin (2023) Landscape-scale benefits of protected areas for tropical biodiversity. *Nature* 620:807-812.
3. **Williams, PJ**, AK Moeller, A Granados, H Bernard, RC Ong, & JF Brodie (2022) Food availability alters community co-occurrence patterns at fine spatiotemporal scales in a tropical masting system. *Oecologia* 200:169-181.
2. **Williams, PJ**, RC Ong, JF Brodie, & MS Luskin (2021) Fungi and insects compensate for lost vertebrate seed predation in an experimentally defaunated tropical forest. *Nature Communications* 12:1650.
1. Yao, G, Y Li, D Li, **P Williams**, & J Hu (2016) Phylogenetic analysis of the endangered takin in the confluent zone of the Qinling and Minshan Mountains using mtDNA control region. *Mitochondrial DNA Part A* 27:2594-2605.

### Manuscripts in review and revision

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4. Gilbert, NA, N Queally, JC Cooper, HN Eyster, & **PJ Williams**. Evenness of bird assemblages at continental scale. *In review after revision*.
3. Ayebare, S, **PJ Williams**, S Ceyzyk, & EF Zipkin. Global impacts of anthropogenic threats on bird and mammal functional groups. *In review after revision*.
2. Gilbert, NA, **PJ Williams**, DJ Carlson, RM Dunlap, M Worland, CS Jennelle, EF Zipkin. Limited capacity of habitat features to buffer grassland bird declines. *In revision after review*.
1. **Williams, PJ**, JF Brodie, C Hsieh, EF Zipkin. Functional consequences of biogeographic isolation vary by mammal clade. *In review*.

### Research grants

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Institute for Biodiversity, Ecology, Evolution, and Macrosystems (IBEEM), Michigan State University. *Characterizing the role of interannual environmental variability in structuring the life histories of global ecological communities*. IBEEM Postdoctoral Fellow. 2023–2024. (\$75,000)

Fulbright Research Grant. *Monitoring habitat use of golden snub-nosed monkeys in Sichuan, China*. Fulbright researcher. 2014–2015. (\$24,750)

### Awards & scholarships

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Jack E. Schmautz Graduate Scholarship, University of Montana	2019
Student Diversity Leadership Award, University of Montana	2017
Leon A Snyder Memorial Scholarship, University of Minnesota	2013
Science and Engineering Merrill Scholarship, University of Minnesota	2011
Gold Scholar Award, University of Minnesota	2010
President's Distinguished Scholarship, University of Minnesota	2010

### Travel grants

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EEB Professional Horizons Grant, Michigan State University	2024
Ecological Society of America Opportunity Fund	2022
Drollinger-Dial Travel Grant, University of Montana	2020

## Teaching experience

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<b>Instructor of record</b> , Michigan State University	2024
• IBIO 890 Understanding Statistical Modeling (seminar) Fall 2024	
<b>Teaching assistant</b> , University of Montana	2016–2021
• Mammalogy (lab) Fall 2017, 2018, 2019, 2020; Head teaching assistant 2018–2020	
• Rocky Mountain Flora (lab) Spring 2020, 2021; Head teaching assistant 2021	
• Introduction to Botany (lab) Spring 2019, 2020	
• Diversity of Life (lab, biology majors and nonmajors) Spring 2018	
• Introductory Biology (lab, biology majors) Fall 2016	
<b>Discussion group leader</b> , University of Montana	2020
• Graduate Seminar in Biology (seminar) Fall 2020	
<b>Chinese language immersion summer camp counselor</b> , Concordia Language Villages	2011–2016
• Camp counselor, traditional music instructor – Summer 2011, 2012, 2014, 2015, 2016	
• Leadership staff member, activities facilitator – Summer 2014, 2015, 2016	
<b>Teaching assistant</b> , University of Minnesota, Minnesota English Language Program	2014
• English as a Second Language (discussion) Spring 2014	

## Mentoring

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Samuel Ayebare	PhD student, Michigan State University	2023–2025
Sydney Ceyzek	Undergraduate, Michigan State University	2024–2025

## Professional service

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<b>Peer reviewer</b>	2022–Current
<i>Biodiversity and Conservation, Biological Conservation, Biological Journal of the Linnean Society, Biotropica, Ecological Processes, Ecology, Ecology and Evolution, Global Ecology and Biogeography, Journal of Animal Ecology, Journal of Plant Ecology, Journal of Wildlife Management, Nature Ecology and Evolution, npj Biodiversity, PeerJ, Philosophical Transactions of the Royal Society B, PLOS One, Regional Environmental Change, Scientific Reports</i>	
<b>Ecology Evolution &amp; Behavior Postdoc Events Organizer</b> , Michigan State University	2022–Current
<b>Department of Integrative Biology Postdoc Representative</b> , Michigan State University	2022–2023
<b>Graduate-invited seminar speaker co-organizer</b> , University of Montana	2019–2020

## Community outreach

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<b>Indianola Scientist of the Month</b> , Irving Elementary School, Indianola, IA	2023
• Interviewed by a group of elementary school children about my life and career; video of the interview was shown to children at four elementary schools	
<b>Science activity leader</b> , Spectrum Discovery Area	2016
• Led hands-on science activities for children at a science center in Missoula, MT	

## Other professional experience

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<b>Crew lead</b> , University of Montana, O'Connor Center for the Rocky Mountain West	2022
• Led vegetation and soil surveys on BLM land in Utah	
<b>Wildlife technician</b> , University of Idaho	2016
• Research assistant for sage grouse research project in Idaho	

## Invited presentations

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**Williams, PJ** (2024) Ecological functions of communities across scales. Michigan State University, Department of Integrative Biology. Seminar.

**Williams, PJ** (2023) Functional ecology of tropical dry forests in Colombia. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Bogotá, Colombia. Seminar.

## National and international conferences

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**Williams, PJ**, JF Brodie, & EF Zipkin (2025) Biogeographic isolation explains global diversity patterns across major mammal clades. Ecological Society of America, Baltimore, USA. Oral presentation.

**Williams, PJ**, EF Zipkin, A González-Melo, B Salgado-Negret, R González-M., N Norden & MN Umaña (2025) Ontogenetic differences in wood anatomy traits in tropical dry forests. Association for Tropical Biology and Conservation, Oaxaca, Mexico. Oral presentation.

**Williams, PJ**, EF Zipkin, & JF Brodie (2024) Deep biogeographic barriers explain divergent global vertebrate communities. International Biogeography Society, Prague, Czechia. Poster presentation.

**Williams, PJ** & JF Brodie. (2023) The roles of climate and history in structuring global ecological communities. Ecological Society of America, Montreal, Canada. Oral presentation.

**Williams, PJ**, RC Ong, JF Brodie, & MS Luskin (2021) Fungi and insects compensate for lost vertebrate seed predation in an experimentally defaunated tropical forest. Association for Tropical Biology and Conservation, Virtual. Oral presentation, lightning talk.

**Williams PJ** (2021) Cascading impacts of defaunation in tropical forests: a critical role for altered seed predation. American Society of Naturalists, Virtual. Oral presentation.

## Local conferences and seminar series

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**Williams, PJ**, EF Zipkin, & JF Brodie (2024) Effects of biogeographic history on global vertebrate diversity. Michigan State University Ecology Evolution & Behavior Research Symposium; East Lansing, MI. Oral presentation.

**Williams, PJ**, J Doser, K Kapsar, L Kounta, A Uscanga, & C Youngflesh (2023) Characterizing the role of interannual environmental variability in structuring the life histories of global ecological communities. Michigan State University Ecology Evolution & Behavior Research Symposium; East Lansing, MI. Oral presentation, lightning talk.

**Williams PJ** (2020) How hunting affects tropical trees through plant-animal interactions. University of Montana Organismal Biology, Ecology, and Evolution Graduate Seminar Series; Missoula, MT. Oral presentation.

## Society membership

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Ecological Society of America, International Biogeography Society, Association of Tropical Biology and Conservation, Society of Conservation Biology, American Society of Naturalists

## Languages

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English	Native
Mandarin Chinese	Advanced (proficient)
Spanish	Intermediate (fluent)
Malay	Intermediate (fluent)
French	Upper beginner
Russian	Upper beginner

## References

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Michigan State University

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**María Natalia Umaña**

University of Michigan

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