

# Isaac Overcast

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## Professional Appointments

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| 2026-     | Assistant Research Professor, Climate Change Institute, University of Maine<br><i>Responsibilities:</i> Applied machine learning for multi-dimensional biodiversity inference |
| 2024-2026 | Associate Research Scientist, Columbia University<br><i>Responsibilities:</i> Community genetic diversity theory and model development                                        |
| 2023-2024 | Research Scientist, California Academy of Sciences<br><i>Responsibilities:</i> Biodiversity resilience modeling                                                               |
| 2022-2023 | Postdoctoral Researcher, University of Maine, School of Biology & Ecology<br><i>Responsibilities:</i> Eco-evolutionary theory and modeling development                        |
| 2019-2021 | Postdoctoral Researcher, Institut de Biologie de l'École Normale Supérieure<br><i>Responsibilities:</i> Island biodiversity genomics theory and modeling                      |
| 2018-2020 | Research Scientist, Sequence Bio, St. John's, NL, Canada<br><i>Responsibilities:</i> Population genetics simulations and analysis of human genome data                        |
| 2014-2015 | Research Scientist, Icahn School of Medicine at Mount Sinai<br><i>Responsibilities:</i> Simulation engine for approximate Bayesian polygenic analysis                         |

## Professional Affiliations

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|-------|----------------------------------------------------------------------------------------|
| 2025- | Research Associate, Illinois Natural History Survey                                    |
| 2024- | Research Associate, California Academy of Sciences                                     |
| 2023- | Research Associate, Virginia Museum of Natural History                                 |
| 2019- | Research Associate, Division of Vertebrate Zoology, American Museum of Natural History |

## Education

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| 2019 | Ph.D. | The Graduate Center of the City University of New York<br><i>Thesis:</i> On the Distribution of Genetic Variation in Ecological Communities |
| 1999 | B.S.  | Computer Science, The Evergreen State College                                                                                               |

## Publications

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- Ullah, S., Rakha, B. A., Hussain, T., Aziz, U., Ansar, M., Naveed, M., **Overcast, I.** (2026) Mitochondrial COI and control region (Dloop) sequences indicate geographic genetic structuring between Astore and Kashmir Markhor (*Capra falconeri*). *Journal of Evolutionary Biology*. In review.
  - Rominger, A., Gruner, D., **Overcast, I.**, Rosindell, J., Wagner, C. (2026) Intermediate abundance promotes speciation when dispersal is limited. *Oikos*. In review.
  - Coker, O. M., **Overcast, I.**, Bell, R. C. (2026) Genetic structure and gene flow of Crowned Bullfrogs (*Hoplobatrachus occipitalis*) across ecological zones in Southwestern Nigeria. *Conservation Genetics*. In review.
  - Rebouças, R., Pierson, T. W., **Overcast, I.**, Vasconcellos, M. M., Toledo, L. P., Carnaval, A. C., Lourenço, L. B. (2026) Beyond the rising seas: historical reconstruction of island population dynamics of the treefrog *Boana albomarginata*. *Heredity*. Accepted.

5. **Overcast, I.**, Calderon-Sanou, I., Creer, S., Dominguez-Garcia, V., Hagen, O., Hickerson, M. J., Jörger-Hickfang, T., Krehenwinkel, H., Lennon, J. T., Méndez, L., Méndez, M., Onstein, R., Pereira, H., Qin, C., Yu, D., Zurell, D., Gillespie, R. (2025) The Community Genetic Distribution (CGD): A unifying measure for monitoring biodiversity change. *Conservation Letters*. In review.
6. Huang, T., **Overcast, I.**, Kuhn, A., Morin, P., Ruane, S. (2025) Small snakes, big cities: population genetics of urban Dekay's brown snake (*Storeria dekayi*) in New Jersey. *Journal of Heredity*.
7. Myers, E. A., Bell, R., **Overcast, I.**, Chaves, J., Torres-Carvajal, O. (2025) Pleistocene island connectivity did not enhance dispersal or impact population size change in Galápagos geckos. *Molecular Ecology*.
8. Harrington, S., **Overcast, I.**, Myers, E. A., Burbrink, F. (2024) Pleistocene glaciation drove shared population coexpansion in eastern North American snakes. *Molecular Ecology*.
9. Luiselli, J., **Overcast, I.**, Rominger, A., Ruffley, M., Morlon, H., Rosindell, J. (2024) Detecting the ecological footprint of selection. *PLoS One*.
10. Gillespie, R., Bik, H., Hickerson, M. J., Krehenwinkel, H., **Overcast, I.**, Rominger, A. J. (2023). Insights into Ecological and Evolutionary Processes via Community Metabarcoding. *Molecular Ecology*.
11. French, C., Bertola, L., Carnaval, A., Economo, E., Kass, J., Lohman, D., Marske, K., Meier, R., **Overcast, I.**, Rominger, A., Staniczenko, P., Hickerson, M. J. (2023). Global determinants of the distribution of insect mitochondrial genetic diversity. *Nature Communications*.
12. **Overcast, I.**, Nogueras, V., Meramveliotakis, E., Andújar, C., Arribas, P., Creedy, T., Emerson, B. C., Vogler, A., Papadopoulou, A., Morlon, H. (2023). Inferring the ecological and evolutionary determinants of community genetic diversity. *Molecular Ecology*.
13. Kizirian, D., Padial, J. M., Kuhn, A., **Overcast, I.**, Myers, E., Saporito, R., Donnelly, M. (2023). Feedback in Batesian Mimetic Systems. *Biological Journal of the Linnean Society*.
14. **Overcast, I.**, Achaz, G., Aguilée, R., Andújar, C., Arribas, P., Creedy, T. J., Economo, E., P., Etienne, R., Gillespie, R., Jacquet, C., Jay, F., Kennedy, S., Krehenwinkel, H., Lambert, A., Meramveliotakis, E., Nogueras, V., Perez-Lamarque, B., Roderick, G., Rogers, H., Ruffley, M., Sanmartin, I., Vogler, A. P., Papadopoulou, A., Emerson, B. C., Morlon, H. (2022). Towards a genetic theory of island biogeography: Inferring processes from multi-dimensional community-scale data. *Global Ecology and Biogeography*.
15. French, C. M., Berezin, C. T., **Overcast, I.**, Mendez de la Cruz, F., Basu, S., Bernal, R., Murphy, R., Hickerson, M. J., Blair, C. (2022). Forest cover and geographic distance influence fine-scale genetic structure of leaf-toed geckos in the tropical dry forests of western Mexico. *Biological Journal of the Linnean Society*.
16. Emerson, B. C., Borges, P., Cardoso, P., Convey, P., deWaard, J., Economo, E., Gillespie, R., Kennedy, S., Krehenwinkel, H., Meier, R., Roderick, G., Strasberg, D., Thébaud, C., Traveset, A., Creedy, T., Meramveliotakis, E., Nogueras, V., **Overcast, I.**, Morlon, H., Papadopoulou, A., Vogler, A., Arribas, P., Andujar, C. (2022). Collective and harmonised high throughput barcoding of insular arthropod biodiversity: toward a Genomic Observatories Network for islands. *Molecular Ecology*.
17. Arribas, P., Andújar, C., Bohmann, K., deWaard, J., Economo, E., Elbrecht, V., Geisen, S., Goberna, M., Krehenwinkel, H., Novotny, V., Zinger, L., Creedy, T., Meramveliotakis, E., Nogueras, V., **Overcast, I.**, Morlon, H., Papadopoulou, A., Vogler, A., Emerson, B. C. (2022). Toward global integration of biodiversity big data: a harmonised metabarcode data generation module for terrestrial arthropods. *GigaScience*.
18. Espindola, S., Vázquez-Domínguez, E., Nakamura, M., Osorio-Olvera, L., Martínez-Meyer, E., Myers, E., **Overcast, I.**, Reid, B., Burbrink, F. (2022) Complex genetic patterns and distribution limits mediated by

native congeners of the worldwide invasive red-eared slider turtle. *Molecular Ecology*.

19. Kuhn, A., Gehara, M., Andrianarimalala, S. M., Rabibisoa, N., Randriamahatantsoa, B., **Overcast, I.**, Raxworthy, C., Ruane, S., Burbrink, F. T. (2022). Drivers of unique and asynchronous population dynamics in Malagasy herpetofauna. *Journal of Biogeography*.
20. Nogueras, V., Meramveliotakis, E., Castro-Insua, A., Andujar, C., Arribas, P., Creedy, T., **Overcast, I.**, Morlon, H., Emerson, B., Vogler, A., Papadopoulou, A. (2021) Community metabarcoding reveals the relative role of environmental filtering and dispersal in metacommunity dynamics of soil microarthropods across a mosaic of montane forests. *Molecular Ecology*.
21. **Overcast, I.**, Ruffley, M., Rosindell, J., Harmon, L., Borges, P., Emerson, B., Etienne, R. S., Gillespie, R., Krehenwinkel, H., Mahler, L., Massol, F., Parent, C., Patiño, J., Peter, B., Week, B., Wagner, C., Hickerson, M. J., Rominger, A. J. (2021) A unified model of species abundance, genetic diversity, and functional diversity reveals the mechanisms structuring ecological communities. *Molecular Ecology Resources*.
22. Creedy, T., Andujar, C., Meramveliotakis, E., Nogueras, V., **Overcast, I.**, Papadopoulou, A., Morlon, H., Vogler, A., Emerson, B., Arribas, P. (2021) Coming of age for COI metabarcoding of whole organism community DNA: towards bioinformatic harmonisation. *Molecular Ecology Resources*.
23. Arribas, P., Andujar, C., Bidartondo, M., Bohmann, K., Coissac, E., Creer, S., deWaard, J., Elbrecht, V., Ficetola, G. F., Goberna, M., Kennedy, S., Krehenwinkel, H., Leese, F., Novotny, V., Ronquist, F., Yu, D., Zinger, L., Creedy, T., Meramveliotakis, E., Nogueras, V., **Overcast, I.**, Morlon, H., Vogler, A., Papadopoulou, A., Emerson, B. C. (2021). Connecting high-throughput biodiversity inventories – opportunities for a site-based genomic framework for global integration and synthesis. *Molecular Ecology*.
24. Bertola, L. D., Boehm, J. T., Putman, N. F., Xue, A. T., Robinson, J. D., Harris, S., Baldwin, C. C., **Overcast, I.**, Hickerson, M. J. (2020). Asymmetrical gene-flow in five co-distributed syngnathids explained by ocean currents and rafting propensity. *Proceedings of the Royal Society B: Biological Sciences*.
25. Kennedy, S., Prost, S., **Overcast, I.**, Rominger, A. J., Gillespie, R., Krehenwinkel, H. (2020). High throughput sequencing for community analysis: The promise of DNA barcoding to uncover diversity, relatedness, abundances and interactions in spider communities. *Development Genes and Evolution*.
26. Kuhn, A., Skipwith, P., **Overcast, I.** (2020) Digest: An emerging model system for understanding ecomorphological convergence. *Evolution*.
27. Eaton, D. A. R., **Overcast, I.** (2020) ipyrad: Interactive assembly and analysis of RADseq datasets. *Bioinformatics*.
28. McGill, B., Chase, J., Hortal, J., **Overcast, I.**, Rominger, A., Rosindell, J., Borges, P., Emerson, B., Etienne, R., Harmon, L., Mahler, L., Massol, F., Neves, P., Parent, C., Ruffley, M., Gillespie, R. (2019). Unifying macroecology and macroevolution to answer fundamental questions about biodiversity. *Global Ecology and Biogeography*.
29. Clugston, J., Kenicer, G., Milne, R., **Overcast, I.**, Wilson, T., Nagalingum, N. (2019). RADseq as a valuable tool for plants with large genomes—a case study in cycads. *Molecular Ecology Resources*.
30. García-Olivares, V., Patiño, J., **Overcast, I.**, Castellano, A. S., López de Heredia, U., Mora-Márquez, F., Machado, A., Hickerson, M. J., & Emerson, B. C. (2019). A topoclimate model for Quaternary insular speciation. *Journal of Biogeography*.
31. **Overcast, I.**, Emerson B. C., & Hickerson M. J. (2019). An integrated model of population genetics and community ecology. *Journal of Biogeography*.
32. **Overcast, I.**, Bagley, J. C., & Hickerson, M. J. (2017). Strategies for improving approximate Bayesian computation tests for synchronous diversification. *BMC Evolutionary Biology*.

33. Oswald, J. A., **Overcast, I.**, Mauck, W. M., Andersen, M. J., & Smith, B. T. (2017). Isolation with asymmetric gene flow during the nonsynchronous divergence of dry forest birds. *Molecular Ecology*.
34. Lipshutz, S. E., **Overcast, I.**, Hickerson, M. J., Brumfield, R. T., & Derryberry, E. P. (2016). Behavioral response to song and genetic divergence in two subspecies of white-crowned sparrows (*Zonotrichia leucophrys*). *Molecular Ecology*.
35. Weiss, R., & **Overcast, I.** (2008). Finding your bot-mate: criteria for evaluating robot kits for use in undergraduate computer science education. *Journal of Computing Sciences in Colleges*.

## Grants & Awards

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- 2026 British Ecological Society Research Equity Fund Grant. **\$10,000** (Lead PI)  
*RADCamp-Latin America 2025: Robust and reproducible analysis of RADseq datasets*  
American Society of Naturalists Regional Meeting and Workshop Grant. **\$1,500** (Lead PI)  
*RADCamp-Latin America 2025: Robust and reproducible analysis of RADseq datasets*  
Society for Systematic Biology Sponsored Symposium. **\$10,000** (Lead PI)  
*Genetic diversity in ecological communities: A new biodiversity pattern that unifies ecological and evolutionary timescales*  
DoD Strategic Environmental Research and Development Program. **\$1,992,278** (Senior Personnel)  
*Linking Broad Scale Remote Sensing with Estimates of Habitat Transformation from Invasive Species to Support Habitat Conservation and Management*
- 2025 Prairie Research Institute/Google AI Seed Project. **\$5,000** (Co-PI)  
*Intersecting INHS digital assets to develop a unified PRI knowledgebase*  
American Genetic Association Special Events Award. **\$10,000** (Co-PI)  
*RADCamp-Latin America 2025: Robust and reproducible analysis of RADseq datasets*  
ISCB Advancing Computational Biology and Bioinformatics funding initiative. **\$5,000** (Lead PI)  
*RADcamp-Latin America 2025: Robust and reproducible analysis of RADseq datasets*  
NSF DEB #2428965. **\$1,789,894** (Senior Personnel)  
*Collaborative Research: Biodiversity Dynamics: Linking Broad Scale Remote Sensing with Arthropod Metabarcoding Across a Geological Age Gradient in the Hawaiian Islands*
- 2024 Society for the Study of Evolution International Event Grant. **\$4,000** (Co-PI)  
*RADcamp-Latin America 2025: Robust and reproducible analysis of RADseq datasets*  
American Society of Naturalists Sponsored Symposium. **\$5,000** (Co-PI)  
*Unlocking the power of genetic time series data to understand microevolutionary and ecological dynamics*
- 2023 NSF DEB #2326020. **\$2,498,705 (\$337,526 to Co-PI Overcast)**  
*Collaborative Research: BoCP-Implementation: Alpine plants as a model system for biodiversity dynamics in a warming world: Integrating genetic, functional, and community approaches.*
- 2022 SSE Sponsored Symposium. **\$9,000** (Lead PI)  
*The Rebirth of Comparative Phylogeography.*
- 2021 German Centre for Integrative Biodiversity Research Early Career Working Group. **\$22,230** (Co-PI)  
*Seeing the forest instead of the trees: identifying the common mechanisms behind enigmas of biodiversity.*
- 2020 American Genetic Association Special Events Award. **\$11,196** (Co-PI)  
*RADcampNYC-2020: Robust and reproducible library preparation sequencing assembly and analysis of RADseq datasets.*
- 2019 NSF IIBR #1927319. **\$1,295,807** (Key Contributor: Lead model development & grant writing)

*RoL: Collaborative Research: A Rules Of Life Engine (RoLE) Model to Uncover Fundamental Processes Governing Biodiversity.*

- 2019 SSE grant for Early-Career Vocational Opportunities Workshops. **\$1500** (Co-PI)
- 2019 Society of Systematic Biologists Ad Hoc Funding Award. **\$1500** (Co-PI)
- 2019 Graduate Center CUNY Mina Rees Dissertation Fellowship in the Sciences. **\$25,000**
- 2017 NSF DEB #1343578 workshop supplement. **\$13,320** (Key Contributor: Lead grant writing)  
*Addressing data management challenges of large-scale projects within NSF's Dimensions of Biodiversity program.*
- 2013 PLATO Royalty Grant, The Evergreen State College. **\$10,200** (Co-PI)  
*Three-dimensional soundscape mapping at Evergreen.*
- 2012 PLATO Royalty Grant, The Evergreen State College. **\$7000** (Co-PI)  
*Developing an Arduino lab facility for arts and sciences.*
- 2011 PLATO Royalty Grant, The Evergreen State College. **\$8000** (Co-PI)  
*Adding eight-channel playback capability to a computer classroom.*
- 2010 PLATO Royalty Grant, The Evergreen State College. **\$2863** (Co-PI)  
*Supporting infrastructure for an Advanced Computing Research Lab.*
- 2008 PLATO Royalty Grant, The Evergreen State College. **\$10,200** (Co-PI)  
*Integrating robotics into media and computer science curriculum.*

## Teaching

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- 2025 Co-Instructor, Columbia University, Dept. of Ecology, Evolution, & Environmental Biology  
*Course:* Programming and Data Science for Biology
- 2015-2019 Teaching Assistant, The City College of New York  
*Courses:* Introduction to Biology; Ecology and Evolution; Anthropological Genomics
- 2005-2008 Adjunct Member of the Faculty, The Evergreen State College  
*Courses:* Technology in New Media; New Media Studies

## Mentored Graduate/Undergraduate Projects

- 2026 Théo Drincourt (University Claude Bernard Lyon 1; PhD Committee Member)  
*Modelling and Inference of the Eco-evolutionary Dynamics Underlying Plant Biodiversity in Tropical Rainforests*
- Carly Coughlin (University of Maine; PhD Committee Member)  
*Island Biogeography and Population Genomics of an Ectomycorrhizal Fungus, *Amanita flavoconia**
- 2025 Caden Klopfenstein (Iowa State University; Undergrad Research)  
*Developing a Machine Learning-based Wildlife Disease Modeling Tool*
- 2021 Maria Wagenknecht (University of Maine; Undergrad Capstone)  
*Development of Best Practices to Analyze eDNA Metabarcoding and Microbiome Data*
- 2020 Juliette Luiselli (École Normale Supérieure; Master 1)  
*Advancing Models of Non-Neutral Assembly Dynamics for Analysis of Community-Scale Genetic Data*
- 2019 Casey-Tyler Berezin (CCNY; Macaulay Honors Scholar)  
*Fine-Scale Population Structure of Leaf-Toed Geckos in Mexico Inferred from Next-Generation Sequencing Data*
- 2018 Rachael Mendoza (Bard College; REU)  
*The Contribution of Non-Neutral and Neutral Processes in Human Microbial Community Assembly*

## Invited Lectures

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- 2026 Louisiana State University, Museum of Natural Sciences, Baton Rouge, LA  
*Integrating eco-evolutionary models and machine learning for predictive biodiversity science*  
Brooklyn College, Biology Department Seminar Series, Brooklyn, NY  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*  
Florida International University, Department of Biological Sciences, Miami, FL  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*  
Northern Arizona University, Department of Biological Sciences, Flagstaff, AZ  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*  
New York Botanical Garden, Science and Humanities Seminar, New York, NY  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*
- 2025 University of Illinois Urbana-Champaign, NRES Seminar, Champaign, IL  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*  
University of Montana, Department of Computer Science, Missoula, MT  
*Predictive Models of Biodiversity Resilience to Inform Conservation Strategy*  
Columbia University, AI & Global Change Biology Symposium, New York, NY  
*Predicting the response of biodiversity to global change with eco-evolutionary models and machine learning*
- 2024 University of Southampton, School of Biological Sciences, Southampton, UK  
*Predictive models of biodiversity resilience to inform conservation strategy*  
California Academy of Sciences, Institute for Biodiversity & Sustainability, San Francisco, CA  
*Using Transdisciplinary, Community-Based Participatory Research to Understand Island Social-Ecological Resilience*  
University of California, Santa Cruz, Department of Ecology and Evolution, Santa Cruz, CA  
*Biodiversity Genetics: Investigating the past and predicting the future using community-scale DNA sequence data*  
University of Alabama at Birmingham, Department of Biology, Birmingham, AL  
*Biodiversity Genetics: Investigating the past and predicting the future using community-scale DNA sequence data*
- 2023 Naturalis Biodiversity Center, Leiden, Netherlands  
University of California, Berkeley, Department of Environmental Science, Policy, and Management  
University of Wyoming, School of Computing, Laramie, WY  
*Unified biodiversity models, big data, and AI*
- 2022 University of Maine, School of Biology and Ecology Department Seminar, Orono, ME  
*Identifying the common mechanisms behind enigmas of biodiversity*  
German Centre for Integrative Biodiversity Research (iDIV), Leipzig, Germany  
*sEnigmas: Identifying the common mechanisms behind enigmas of biodiversity*  
Florida Museum of Natural History, Research Seminar, Gainesville, FL  
*Why do we need AI for natural history and biodiversity research?*  
Rutgers University Biology Colloquium, Newark, NJ  
*Why do we need unified models of biodiversity?*
- 2021 Florida Museum of Natural History, Research Seminar, Gainesville, FL  
*Biodiversity Genomics, Big Data & Machine Learning*  
Ecole Normale Supérieure, EEB Section Seminar, Paris, France  
*The Speciation Rate Genetic Diversity Correlation*
- 2020 University of Maine, Research Seminar, Orono, ME

- On the distribution of genetic variation in ecological communities*  
 Ecole Normale Supérieure, EEB Section Seminar, Paris, France  
*Community biodiversity genomics*  
 University of Würzburg, Center for Computational and Theoretical Biology, Würzburg, Germany  
*Community biodiversity genomics*  
 Universität Trier, Biogeography Department Symposium, Trier, Germany  
*On the distribution of genetic variation in ecological communities*
- 2019 Santa Fe Institute, Science Symposium, Santa Fe, NM  
[\*Unifying the study of biodiversity across timescales: What a MESS!\*](#)  
 Rutgers University Biology Colloquium, Newark, NJ  
*Island biogeography and the distribution of genetic variation in ecological communities*  
 Yale University, Powell-Caccone Lab Group Meeting, New Haven, CT  
*Island biogeography and the distribution of genetic variation in ecological communities*  
 Instituto Gulbenkian de Ciência, Oeiras, Portugal  
*Island biogeography and the distribution of genetic variation in ecological communities*
- 2018 Smithsonian Institution National Museum of Natural History, Washington DC  
*Island biogeography and the distribution of genetic variation in ecological communities*  
 German Centre for Integrative Biodiversity Research (iDIV), Leipzig, Germany  
*Community Assembly and Population Genetics: At the Nexus of Space and Time*

## Conference Presentations

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- 2026 Botany 2026, Tucson, AZ  
*Inferring shared barriers and corridors of migration for alpine plant communities using MEADOW, a novel machine learning method*  
 Evolution 2026, SSB Sponsored Symposium on Community Genetic Diversity, Cleveland, OH  
*Inferring shared barriers and corridors of migration for alpine plant communities using MEADOW*
- 2025 Philosophy & Biology Shop Talks, Westfield, NC  
*Information transfer unifies Earth and Life systems*  
 Virginia Association of Museums Annual Conference, Blacksburg, VA  
*Technological Advances and Traditional Curation: The Melding of Time-Honored and Modern Methods to Advance Collections-Based Work*  
 Conference of the American Society of Naturalists, Pacific Grove, CA  
*Inferring recent demographic patterns across species with temporal genomic data*
- 2024 GEOBON Genetic Composition Working Group Virtual Symposium  
*Leveraging the distribution of genetic variation within ecological communities for conservation and monitoring*  
 Entomological Society of America, Phoenix, AZ  
*A predictive model of biodiversity resilience to inform conservation strategy*  
 Philosophy & Biology Shop Talks, Westfield, NC  
*Understanding the Common Mechanisms Behind the Enigmas of Biodiversity*  
 Conservation Genomics Paris, MNHN, Paris, France  
*A Predictive Model of Biodiversity Resilience to Inform Conservation Strategy*
- 2023 Society of Systematic Biologists Standalone Meeting, UNAM, Mexico City, Mexico

- On the correlation between speciation rate and genetic diversity*
- 2021 Virtual Evolution Conference  
*Community biodiversity genomics*
- 2019 3rd International Conference on Island Biology, Saint-Denis, Réunion, France  
*Island biogeography and the distribution of genetic variation in ecological communities*  
Geography & Genes Symposium, International Biogeography Conference, Malaga, Spain  
*An integrated model of population genetics and community ecology*
- 2018 Evolution meeting, Montpellier, France  
*An integrated model of population genetics and community ecology*
- 2017 Evolution meeting, Portland, Oregon  
[\*Integrating island assembly models and comparative population genetics\*](#)
- 2016 2nd International Conference on Island Biology, Angra do Heroísmo, Terceira, Portugal  
*Integrating island assembly models and comparative population genetics*

## Service to the Profession

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### Workshops Organized/Taught

- 2026 [RADCamp Latin America](#) (8 Day; Tecnológico de Monterrey)  
[RADCamp UIUC](#) (1 Day; University of Illinois Urbana-Champaign)
- 2025 [RADCamp Brisbane](#) (2 Day; University of Queensland)
- 2024 [RADCamp Phoenix](#) (1 Day; Arizona State University)  
[RADCamp San Francisco](#) (2 Day; California Academy of Sciences)  
[RADCamp Chicago](#) (2 Day; Field Museum of Natural History)
- 2023 [RADCamp Chicago](#) (3 Day; Field Museum of Natural History)  
[RADCamp Kigali](#) (2 Day; University of Rwanda)  
[Multidimensional Biodiversity Data Analysis & Process-Based Modelling](#) (4 Day; Albuquerque, NM)  
[RADCamp NYC](#) (4 Day; Columbia University)  
[Phylogeographic Temporal Analysis \(PTA\)](#): Model based comparative phylogeography with machine learning (½ Day; SSB Standalone Meeting; UNAM, Mexico City, Mexico)
- 2020 [RADCamp Marseille](#) (3 Day; Online)  
[RADCamp NYC](#) (½ Day; Online)  
[RADCamp Lisbon](#) (1 Day; University of Lisbon)
- 2019 [RADCamp NYC](#) (4 Day; Columbia University)  
[CompPhylo Oslo](#) (5 Day; University of Oslo)  
[RADCamp Yale](#) (½ Day; Yale University)  
[RADCamp IBS](#) (Full Day; International Biogeography Society meeting, Malaga, Spain)
- 2018 [RADCamp NYC](#) (3 Day; Columbia University)  
[RADCamp AF-BIOTA](#) (3 Day; University of São Paulo, Brazil)

### Scientific Symposia Organized

- 2025 American Society of Naturalists Annual Meeting  
*Unlocking the power of genetic time series data to understand microevolutionary and ecological dynamics*
- 2024 Entomological Society of America Annual Meeting (Section Symposium)

- Arthropod Metabarcoding: A Powerful Tool for Inventorying, Monitoring, and Regenerating Biodiversity*  
2023 Evolution Conference (SSE Sponsored Symposium)  
*The Rebirth of Comparative Phylogeography*

### Scientific Software

- [ipyRAD](#): Interactive assembly and analysis of RADseq datasets (co-author)  
[easyCGD](#): Quantifying and analyzing community genetic diversity structure  
[MESS](#): Massive Eco-Evolutionary Synthesis Simulations  
[gimmeSAD](#): An integrated model of population genetics and community ecology  
[msBayes](#): Complex and flexible comparative phylogeographic inference (co-author)  
[iBioGen](#): Software for the study of island biodiversity dynamics from genomic data  
[easySFS](#): Selection of population size projection for construction of the site frequency spectrum  
[PTA](#): Phylogeographic temporal analysis for genome-scale datasets  
[PIED](#): A model of coevolving community abundance and phylogenetic birth/death processes

### Outreach Activities (Public Seminars)

- 2022 A New HOPE, Hackers on Planet Earth Conference, New York City  
*Hacking the Anthropocene: Life, Biological Complexity, Freedom!*  
2019 Left Forum, New York City  
*Primer on Complexity Science for Social Change*. In: *Vulgar Complexity: How Can Complexity Science, Computation, and Evolution Inform Left Political Strategy?*  
2018 Science on Tap, New York City.  
*Islands as Natural Laboratories in Ecology and Evolution*  
2015 The CUNY Graduate Center English Student Association Conference: Trance, New York City  
*Patterns of Trance Across the Tree of Life*

### Outreach Activities (Popular Press/Online Content)

- 2022 [sEnigmas: An sDiv Early-Career Researcher Working Group to identify the common mechanisms behind enigmas of biodiversity](#) - sDiv newsletter  
2021 [How we can detect pretty much anything - Hélène Morlon and Anna Papadopoulou](#) - Ted-Ed Video  
(Co-wrote script)  
2020 [Comment retracer l'histoire des espèces?](#) - Fête de la science, Youtube video  
2018 [Sketching the Rules of Life: Developing a Model of Biodiversity](#) - Parallax: Newsletter of the Santa Fe Institute

### Professional Affiliations (Member)

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|----------------------------------|---------------------------------------------|
| Society of Systematic Biologists | Society for the Study of Evolution          |
| Association for Women in Science | Society for Molecular Biology and Evolution |
| American Society of Naturalists  | International Biogeography Society          |
| Complex Systems Society          |                                             |

### Volunteered Peer-Review

- 2026 Ecology Letters, Global Ecology and Biogeography, Systematic Biology  
2025 Molecular Phylogenetics and Evolution, Scientific Reports, Ecology Letters, Systematic Biology,

Evolutionary Journal of the Linnean Society, Ecography, Global Ecology and Biogeography

2024 Journal of Evolutionary Biology, Functional Ecology, Evolution, Bioinformatics, Bioinformatics Advances, Proceedings of the Royal Society B, Systematic Biology, Molecular Ecology

2023 Journal of Biogeography, Systematic Biology, Ecology Letters, Journal of Evolutionary Biology, Evolution, Ecological Informatics, Trends in Ecology and Evolution, Molecular Ecology, Molecular Ecology Resources

2022 Journal of Biogeography, Systematic Biology, Methods in Ecology and Evolution, Global Ecology and Biogeography, American Naturalist, Molecular Ecology Resources, Oikos, Journal of Open Source Software, PLOS Computational Biology

2021 Molecular Ecology Resources, Diversity, Systematic Biology, Frontiers in Plant Science, Insect Systematics and Diversity, Ecography, Methods in Ecology and Evolution, American Naturalist

2020 Molecular Ecology, PeerJ, Ecology Letters, Journal of Biogeography, Molecular Ecology Resources, Evolutionary Ecology, Systematic Biology

2019 Ecology Letters, Evolution

2018 PLOS One, Molecular Ecology, Molecular Phylogenetics and Evolution, PeerJ, Molecular Ecology Resources, Journal of Biogeography

2017 Bioinformatics, Journal of Biogeography, Royal Society Open Science

### Community Service

2026 Mitacs Accelerate Global Excellence Award, Proposal Reviewer

2026 French National Research Agency (ANR), Proposal Reviewer

2025 French National Research Agency (ANR), Proposal Reviewer

2024 National Science Foundation, Proposal Reviewer

2023- Associate Editor, Systematic Biology

2022-2023 University of Maine, College of Natural Sciences, Forestry, and Agriculture Staff Council

2022 FRB-CESAB External Reviewer

2022 University of Maine Student Symposium Reviewer

2021-2023 Molecular Ecology Special Issue Guest Editor  
[\*Insights into Ecological & Evolutionary Processes via Community Metabarcoding\*](#)

2021 Hungarian National Research, Development, and Innovation Office, External Reviewer

2020 Spanish State Research Agency (AEI) Expert Evaluator

2020 IBS Travel Award Review Committee

2019-2025 SSB Graduate Student Research Awards Reviewer

2016-2019 CCNY Women in Natural Science Volunteer Mentor

2016-2019 CUNY Ecology, Evolution, and Behavior Subprogram Student Representative

2016 Women in Natural Science Travel Grant Review Panel Participant

2015-2016 CUNY Biology Program, Executive Committee Student Representative

2015-2016 CUNY Doctoral Student Council, Biology Program Representative

2013-2015 National Lawyers Guild, Technical Consultant

2012-2013 Labmanager Conference, Organizing Committee Chair

2010-2011 Olympia Books to Prisoners, Volunteer

2002-2014 Olympia Film Society, Technical Consultant/Projectionist

2007-2012 Olympia Film Society, Board of Directors (President)

|           |                                                       |
|-----------|-------------------------------------------------------|
| 2007-2008 | Free Radio Olympia, Technical Consultant              |
| 2006-2007 | Cabinet Magazine, Technical Consultant/Web Programmer |