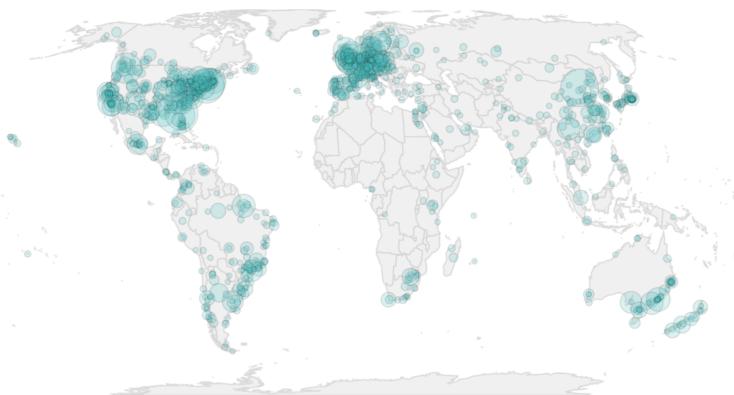


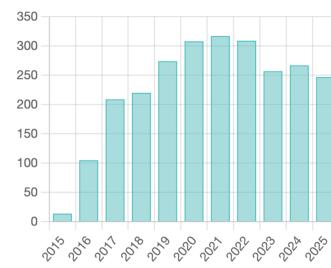
## RESEARCH AND IMPACT SNAPSHOT

Dr. Berv studies how evolutionary processes generate phenotypic and genomic diversity across time and space, linking trait–environment dynamics to diversification and biodiversity patterns. His research focuses primarily on vertebrates, synthesizing genomic, morphological, and paleontological data from fieldwork and museum collections through computational analyses, while developing open-source software that enables scalable computational biology.

**Citation Geography**



**Citations Over Time**



## Research outputs & resources (as of Feb 2026 unless noted)

- **Publications:** 21 peer-reviewed (5 under review/revision; Jan 2026). Some venues include *Nature*, *Nature Ecology & Evolution*, *Science Advances*, *Current Biology*.
- **Funding History:** \$1.2 M (external + internal fellowships, grants, and awards).
- **Software:** Co-maintainer, CRAN Phylogenetics Task View (2022–present); developer of Janus and bifrost software packages for comparative/phylogenetic inference.
- **Talks:** 24 invited seminars/colloquia; 28 conference presentations.
- **Mentorship:** 6 graduate mentees; 8 undergraduate mentees.
- **Visibility:** 2,616 citations; h-index 13; Field-Weighted Citation Impact (Scopus) 3.82 (Oct 2025).
- **Peer review:** 60+ verified reviews (incl. *Systematic Biology*, *Evolution*, *PNAS*, *Nature*).

**Research strengths:** Macroevolution • Phylogenomics • Trait evolution • Comparative methods development • Biodiversity informatics. Builds reproducible analytical workflows, advanced statistical models in R, and machine-learning approaches for large comparative datasets linking genomes, phenotypes, and fossils.

**Teaching:** Evolution • Phylogenetics/Comparative Methods • Macroevolution • Quantitative Biology. Inclusive, evidence-based teaching across lecture, field, and quantitative courses that supports student research independence.

**Service:** Co-maintainer of the CRAN Phylogenetics Task View and active peer reviewer; organizer of major cross-disciplinary events (MIDAS Generative AI Tutorial Series, Evolution 2025 symposium, CVPR 2025 workshop); contributor to Academic Parity Movement and anti-bullying initiatives; active in public outreach and science communication.

## EDUCATION & APPOINTMENTS

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University of Michigan, Ann Arbor, MI

**Postdoctoral Research Fellow**, August 2025 – Present

- PI Brian Weeks, School for Environment and Sustainability, Packard Foundation, University of Michigan

**Schmidt AI in Science Postdoctoral Fellowship**, August 2023 – August 2025

- Schmidt Sciences, LLC., and the University of Michigan Institute for Data and AI in Society

**Michigan Life Sciences Fellowship**, November 2019 – August 2023

- University of Michigan Life Sciences Institute, Departments of Ecology and Evolutionary Biology and Earth Sciences
  - Science Communication Fellow U.M. Natural History Museum (Fall 2020 - Present)
  - Teaching in STEM Certificate, Center for Research on Learning and Teaching (Winter 2020)
  - Rackham Professional Development Certificate (leadership and mentoring) (May 2020 - May 2022)

Education

**Ph.D., Ecology and Evolutionary Biology**, Cornell University – Ithaca, NY, (September 2013 - August 2019)

**Research Technician**, Prum Laboratory, Yale College – New Haven, CT, (May 2010 - August 2013)

**B.S., Ecology and Evolutionary Biology**, Yale College – New Haven, CT, (August 2006 - May 2010)

## PUBLICATIONS & RESEARCH PRODUCTS (31)

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### Peer Reviewed

1. **Berv, J. S.**, Fox, N., Thorstensen, M. J., Lloyd-Laney, H., Troyer, E. M., Smith, S. A., Friedman, M., Fouhey, D. F., Weeks, B. C. 2025. bifrost: Branch-Level Inference Framework for Recognizing Optimal Shifts in Traits. **Comprehensive R Archive Network**. R Package. v0.1.3. [doi.org/10.32614/CRAN.package.bifrost](https://doi.org/10.32614/CRAN.package.bifrost)
2. **Berv, J. S.**, et al. Rates of passerine body plan evolution across space and time. **Nature Ecology & Evolution**. *Accepted pending minor revisions.*
3. **Weeks, B.C., Berv, J.S.**, et al. Exploring the data demands and global opportunities for reconstructing morphological responses to climate change. **Evolutionary Ecology**. 2026. [doi.org/10.1007/s10682-025-10368-x](https://doi.org/10.1007/s10682-025-10368-x)
4. **Strauch, R. J. \*, Berv, J. S.**, Fraser, D., Pyenson, N., D., Peredo, C. M. Morphological diversity of the cetacean mandibular symphysis coincides with novel modes of aquatic feeding. 2025. **Paleobiology**. [doi.org/10.1017/pab.2025.10061](https://doi.org/10.1017/pab.2025.10061) \*Graduate student advisee.
5. Weeks, B. C., Zhou, Z., **Probst, C. M.\*, Berv, J. S.**, O'Brien, B., Benz, B. W., Skeen, H. R., Ziebell, M., Bodt, L., Fouhey, D. F. Skeletal trait measurements for thousands of bird species. 2025. **Nature Scientific Data**. [doi.org/10.1038/s41597-025-05234-y](https://doi.org/10.1038/s41597-025-05234-y) \*Graduate student advisee.
6. **Weiss, A. K. \* Berv, J. S.** Habitat-associated substitution rates in chemosynthetic deep-sea invertebrates. 2025. **Evolution**. [doi.org/10.1093/evolut/qpaf080](https://doi.org/10.1093/evolut/qpaf080) \*Graduate student advisee.
7. Gregg, W. C. T., **Hughes, J. J.\***, Kumon, T., **Berv, J. S.**, Lampson, M., Levine, M., Searle, J. B., Good, J. M. The Genomic Landscape, Causes, and Consequences of Extensive Phylogenomic Discordance in Murine Rodents. 2025. **Genome Biology and Evolution**. [doi.org/10.1093/gbe/evaf017](https://doi.org/10.1093/gbe/evaf017) \*Graduate student advisee.
8. **Berv, J. S.** Singhal, S., Field, Daniel. J., **Walker-Hale, N.\***, **McHugh, W. S.\***, Shipley, J. R., Miller, E.T., Kimball, R.T., Braun, E.L., Dornburg, A., Parins-Fukuchi, C., Prum, R.O., Friedman, M., Smith, S.A., Genome and life-history evolution link bird diversification to the end-Cretaceous mass extinction. 2024. [doi.org/10.1126/sciadv.adp0114](https://doi.org/10.1126/sciadv.adp0114) **Science Advances**. \*Graduate student advisee. (Cover art right).
9. **Pegan, T.\***, **Berv, J. S.**, Gulson-Castillo, E., Winger, B., 2023. The pace of mitochondrial molecular evolution varies with seasonal migration distance. **Evolution**. [doi.org/10.1093/evolut/qpad200](https://doi.org/10.1093/evolut/qpad200) \*Graduate student advisee.
10. **Hughes, J. J\*†, Berv, J. S.\***, Chester, S. G. B., Sargis, E. J., Field, D. J. 2021. Ecological selectivity and the evolution of mammalian substrate preference across the K–Pg boundary. **Ecology and Evolution**. [doi.org/10.1002/ece3.8114](https://doi.org/10.1002/ece3.8114) \*Shared first authorship, †graduate student advisee.
11. **Berv, J. S.**, Campagna, L., Feo, T. J., **Castro-Astor, I\***., Ribas, C. C., Prum, R. O., Lovette, I. J., 2021. Genomic





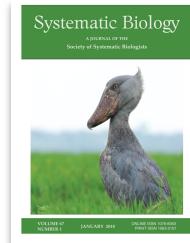
# JACOB S. BERV

C U R R I C U L U M V I T A E

Computational Evolutionary Biologist  
Bridging Genomics, Paleontology, Big Data, and AI  
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phylogeography of the White-crowned Manakin *Pseudopipra pipra* (Aves: Pipridae) illuminates a continental-scale radiation out of the Andes. **Molecular Phylogenetics and Evolution.** [doi.org/10.1016/j.ympev.2021.107205](https://doi.org/10.1016/j.ympev.2021.107205). \*Graduate student advisee.

12. van Els, P., Zarza, E., Rocha Moreira, L., Gómez-Bahamón, V., Santana, A., Aleixo, A., Ribas, C. C., do Rêgo, P. S., Santos, M. P. D., Zyskowski, K., Prum, R. O., **Berv, J. S.**, 2021. Recent divergence and lack of shared phylogeographic history characterize the diversification of neotropical savanna birds. **Journal of Biogeography.** [doi.org/10.1111/jbi.14065](https://doi.org/10.1111/jbi.14065)
13. Field, D.J., **Berv, J.S.**, Hsiang, A.Y., Lanfear, R., Landis, M.J., Dornburg, A., 2020. Timing the Extant Avian Radiation: The Rise of Modern Birds, and the Importance of Modeling Molecular Rate Variation. In: Pittman, M., Xu, X. (Eds.), *Pennaraptoran Theropod Dinosaurs Past Progress and New Frontiers. Bulletin of the American Museum of Natural History*, New York, pp. 159-181. [digilibRARY.amnh.org/handle/2246/7237](https://digilibRARY.amnh.org/handle/2246/7237) (Cover art right)
14. Fecchio, Alan ... **Berv, J.S.**, et al (author list truncated) 2019. An inverse latitudinal gradient in infection probability and phylogenetic diversity for *Leucocytozoon* blood parasites in New World birds, **Journal of Animal Ecology**. [doi.org/10.1111/1365-2656.13117](https://doi.org/10.1111/1365-2656.13117).
15. **Berv, J.S.**, 2019. Tempo and mode: Using genomic, anatomical, and life-history data to integrate the micro- and macroevolution of birds. ProQuest Dissertations & Theses Global; ProQuest Dissertations & Theses Global Closed Collection. (2301477206).
16. Field, D.J., Bercovici, A., **Berv, J.S.**, Dunn, R., Fastovsky, D.E., Lyson, T.R., Vajda, V., Gauthier, J.A. 2018. Early Evolution of Modern Birds Structured by Global Forest Collapse at the End-Cretaceous Mass Extinction. **Current Biology.** [http://doi.org/10.1016/j.cub.2018.04.062](https://doi.org/10.1016/j.cub.2018.04.062) (Cover art right)
17. Clark, C.J., McGuire, J.A., Bonaccoroso, E., **Berv, J.S.**, Prum, R.O 2018. Complex coevolution of wing, tail, and vocal sounds of courting male bee hummingbirds. **Evolution.** [doi.org/10.1111/evo.13432](https://doi.org/10.1111/evo.13432)
18. **Berv, J.S.** Field, D. J. 2018. Genomic Signature of an Avian Lilliput Effect across the K-Pg Extinction, **Systematic Biology**. [doi.org/10.1093/sysbio/syx064](https://doi.org/10.1093/sysbio/syx064). (Cover art right).
19. Prum, R.O. \*, **Berv, J.S.\***, Dornburg, A., Field, D. J., Townsend, J.P., Lemmon, E.M., Lemmon, A. R. 2015. A comprehensive phylogeny of birds (Aves) using targeted next-generation DNA sequencing, **Nature**, [doi.org/10.1038/nature15697](https://doi.org/10.1038/nature15697) \*shared first authorship.
20. Feo, T., Musser, J., **Berv, J. S.**, Clark, C. J. 2015. Divergence in morphology, calls, song, mechanical sounds, and genetics supports species status for the Inaguan hummingbird (Trochilidae: Calliphlox "evelynae" lyrura), **The Auk: Ornithological Advances**, [doi.org/10.1642/AUK-14-108.1](https://doi.org/10.1642/AUK-14-108.1)
21. **Berv, J. S.**, Prum, R.O. 2014. A comprehensive multilocus phylogeny of the Neotropical cotingas (Cotingidae, Aves) with a comparative evolutionary analysis of breeding system and plumage dimorphism and a revised phylogenetic classification. **Molecular Phylogenetics and Evolution.** [doi.org/10.1016/j.ympev.2014.09.001](https://doi.org/10.1016/j.ympev.2014.09.001).



## Under review

22. Shipley, J. R., **Berv, J.S.**, et al. Shrinking Birds in a Warming World: Mechanisms, Biases, and Consequences. **Current Biology**
23. Rivero-Vega, R.A.\*, **Berv, J.S.**, et al, M. Variable patterns of phenotypic evolution among canonical 'living fossil' lineages. *bioRxiv* [doi.org/10.1101/2024.11.14.623638](https://doi.org/10.1101/2024.11.14.623638) **Paleobiology**. \*Graduate student advisee.
24. Bertola, L. D., ... **Berv, J.S.**, et al. Community-level genome-environment associations (GEA) with contemporary and historical climate in the Brazilian Atlantic Forest. **Molecular Ecology**.
25. Probst, C.\*, **Berv, J.S.**, et al. Temperature predicts relative mass but not size in the world's passerines. **Global Ecology and Biogeography**. \*Graduate student advisee.
26. Balakrishnan, ... **Berv, J.S.**, et al. Dietary shift shapes genome evolution and sexual selection in a Neotropical avian radiation. **Current Biology**

## In preparation

27. **Berv, J.S.**, et al. bifrost: an R Package for inferring phylogenetic shifts in multivariate evolutionary dynamics



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[bit.ly/berv\\_evolution\\_2024\\_montreal](https://bit.ly/berv_evolution_2024_montreal)

28. **Berv, J.S.**, Saulsbury, J., “Ghosts in the machine” of diversification analysis. Talk: [https://bit.ly/berv\\_umich\\_2021](https://bit.ly/berv_umich_2021)
29. **Berv, J.S.**, et al. Limited evidence of sexual dimorphism in allometric scaling across Passerines

### Other Publications

30. Miller et al, 2007. Phase 072 Expedition Report for The Yachana Foundation and Museo Ecuatoriano de Ciencias Naturales
31. Gearty, W., O'Meara, B., **Berv, J. S.**, Ballen, G. S., Ferreira, D., Lapp, H., Schmitz, L., Smith, M. R., Upham, N. S., Nations, J. A. (2023). CRAN Task View: Phylogenetics. Version 2023-04-03. URL <https://CRAN.R-project.org/view=Phylogenetics>.

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## SCHOLARSHIP AWARDS/RECOGNITION

1. **International Ornithological Congress (IOC)**, Invited Keynote Speaker, Symposium: *Macroevolution*. **Nov 2026**.
2. **Geological Society of America Pardee Symposium**, Invited Keynote Speaker, Symposium: *Impact Cratering and the Evolution of Life*. **Oct 2025**
3. **Publisher's Award for Excellence in Systematic Research**: Oxford University Press, award for the best student paper in the journal Systematic Biology, the journal of the **Society of Systematic Biologists**. **2018**.
4. **Society of Systematic Biologists: Ernst Mayr Award Finalist** (Global competition). **2018**.
5. **Schmidt Science Fellows (finalist nominated by Cornell University)**. **2018**.
6. **Society for the Study of Evolution: W.D. Hamilton Award Finalist** (US competition). **2016**.

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## FUNDRAISING (\$1,177,837 USD)

### OpenAI, LLC

1. OpenAI for Science award to apply GPT-Pro (frontier models) to academic research. Fall 2025. \$2,400

### Schmidt Sciences, LLC

2. Oxford University, 2<sup>nd</sup> Research Software Engineering Workshop. Fall 2025 (Travel award), \$1,340
3. Cold Spring Harbor Banbury Center, Scientific Entrepreneurship Workshop. Fall 2025 (Travel award), \$1,375
4. Eric and Wendy Schmidt AI in Science Postdoctoral Fellowship, Awarded Spring 2023, \$208,000 (salary + fringe)

### University of Michigan

5. Weeks Laboratory Postdoctoral Research Fellow (Packard Foundation), Fall 2025 (salary + fringe), \$104,405
6. Michigan Life Sciences Fellows, Awarded Spring 2019, \$380,900 (salary + fringe + research funds)

### U.S. National Science Foundation

7. Postdoctoral Research Fellowship in Biology, Spring 2019, \$207,000 (awarded and declined)
8. Doctoral Dissertation Improvement Grant, Spring 2017, \$20,226.00, DEB-1700786
9. Graduate Research Fellowship, Spring 2014 \$138,000, DGE-1650441

### Academic Societies

10. Geological Society of America, Pardee Keynote speaker travel award, October 2025, \$2,000
11. Society for the Study of Evolution symposium organizing award (Evolution 2025), January 2025, \$7,000
12. Society for the Study of Evolution Travel Award, Spring 2018, \$500
13. Society for Molecular Biology and Evolution Young Investigator Travel Award, Spring 2018, \$2,450
14. Society for the Study of Evolution **W.D. Hamilton Award Finalist**, June 2016, \$500
15. National Science Foundation—Society of Systematic Biologists Travel Award, Summer 2015, \$1,750
16. Society of Systematic Biologists Graduate Student Research Award, Fall 2015, \$1,500

### Cornell University (Ph.D.)

17. Melinda and Irwin Simon Student Research Fund, Spring 2019, (Cornell Lab of Ornithology Fellowship), \$19,829
18. Paul P. Feeny Graduate Student Research Fund, Summer 2017, (Cornell EEB), \$1,200
19. Paul P. Feeny Graduate Student Research Fund, Summer 2016, (Cornell EEB), \$1,200
20. Andrew W. Mellon Student Research Grant, Spring 2016, \$1,000
21. Sigma-Xi small grant, Spring 2016, \$600
22. Cornell Laboratory of Ornithology Athena grant, Fall 2015, \$4,000
23. Paul P. Feeny Graduate Student Research Fund, Summer 2015, \$1,200

24. Andrew W. Mellon Student Research Grant, Spring 2015, \$1,000
25. Cornell Laboratory of Ornithology Athena Fund, Fall 2014, \$5,000
26. Paul P. Feeny Graduate Student Research Fund, Summer 2014, \$1,200
27. Orenstein Fund, Summer 2014, \$750
28. Charlie E. Treman, Jr. Graduate Fellowship, Spring 2015 (Cornell Lab of Ornithology Fellowship), \$18,111
29. Kramer Graduate Fellowship, Summer 2014 (Cornell Lab of Ornithology Summer Fellowship), \$4,950
30. Tyson Graduate Fellowship, Spring 2014, (Cornell Lab of Ornithology Fellowship) \$18,041
31. Cornell Laboratory of Ornithology Athena Fund, Fall 2013, \$3,610

#### **Yale College (Undergraduate)**

32. Mellon Forum Undergraduate Research Grant, Fall 2009, \$500
33. The Yale College Dean's Research Fellowship in the Sciences, May 2009, \$2,000
34. Yale Peabody Museum Summer Fellowship, May 2009, \$5,000
35. The Environmental Fellowship for Study and Research, May 2009, \$2,000
36. The Yale Science and Engineering Association Fellowship, May 2009, \$2,000
37. The Alan S. Tetelman Fellowship for Study Abroad, May 2009 \$1,800
38. Paul K. and Evelyn Elizabeth Cook Richter Scholarship, May 2009, \$1,500
39. The Environmental Fellowship for Study and Research, May 2008, \$2,000

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### PROFESSIONAL SERVICE

#### **Workshop Leader**

- **Evolution 2025**
  - Sponsored symposium co-organizer (with James Boyko and Michael Landis). Symposium highlighted applications of AI in Ecology and Evolutionary Biology and will produce an edited issue of the journal.
- **2025 Conference on Computer Vision and Pattern Recognition (CVPR).**
  - Co-organizer for the *Computer Vision for Science* workshop, selected through a competitive process for its interdisciplinary relevance, diverse research topics, and commitment to inclusivity, including computer vision, biology, neuroscience, and ecology <https://sites.google.com/nyu.edu/computervisionforscience/>
- **Michigan Institute for Data & AI in Society, Generative AI Tutorial Series**
  - **Visualizing and Presenting Data** – Organized and led an interactive workshop on data visualization techniques, fostering an inclusive learning environment that balanced representation and accessibility for participants from diverse disciplines and demographics. (**May 2024 and November 2024**) [https://bit.ly/jb\\_midas\\_2024a](https://bit.ly/jb_midas_2024a)
  - **Technology Meets Creativity: Exploring the Potential of AI for the Arts** – Organized and led a workshop showcasing AI tools for stylized image generation, with an emphasis on engaging artists from diverse backgrounds. (**March 2024**)

#### **University of Michigan (2019-Present)**

- **North American Paleontological Congress (June 2024)**
  - Provided on-site support and edited the abstract volume, ensuring an inclusive, accessible environment and diverse representation for all conference participants.
- **DNA Day (2021)**
  - Co-created and delivered an interactive Evolutionary Biology module for Michigan's DNA Day, reaching approximately 100 high school students from diverse backgrounds with hands-on lessons about DNA and evolution <https://midnaday.com/> **April 2021**.
- **Rackham Professional Development Certificate**
  - Completed Rackham's 2-year Certificate Program (May 2022), with ~ 10 workshops covering inclusive teaching, bias mitigation, intercultural communication, and equitable mentoring; capstone: personal inclusion strategies.
- **Academic Parity Movement <https://paritymovement.org/> 501(c)3 non-profit**
  - Joined the Academic Parity Movement in December 2022 as the first representative from EEB, contributing to the development of content for anti-bullying workshops aimed at supporting researchers facing discrimination and academic bullying.

#### **Cornell University Department of Ecology and Evolutionary Biology (2013-2019)**

- **Graduate Student Preview Weekend, [www.cornelldpw.org](http://www.cornelldpw.org)**



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- Founding team member of Cornell's graduate student 'Preview Weekend,' an all-expenses-paid program for underrepresented students, where I managed housing logistics and reviewed applications (2017-2019), supporting workshops, networking, and discussions on culture, identity, and the grad school application process.

#### ▪ Graduate Student Association

- Invited Speaker Committee (2013, 2014, 2015), Holiday Party Committee (2016), Representative at faculty meetings (2017)

### Scientific Media Consultant, (Netflix, 2017-2021)

- *The Magic School Bus Rides Again*; Provided detailed guidance on evolutionary biology and ornithology, with a focus on ensuring accessible and inclusive representation of scientific concepts, **credited contribution**.

### Academic scholarship service

Peer review service — 66 verified reviews (Web of Science Reviewer profile: [https://bit.ly/berv\\_WOS](https://bit.ly/berv_WOS))

- Systematic Biology (17), Molecular Phylogenetics and Evolution (6), Biological Journal of the Linnean Society (3), Molecular Ecology (3), PeerJ (2), MDPI Birds (1), F1000Research (1), Gondwana Research (1), Journal of Biogeography (8), Proceedings of the Royal Society B: Biological Sciences (6), Evolution (6), Molecular Biology and Evolution (2), Proceedings of the National Academies of Sciences (2), MDPI Diversity (1), Functional Ecology (1), The Auk: Ornithological Advances (1), Ornithology (3), Current Biology (1), Nature (1).

### Software

- The Comprehensive R Archive Network (CRAN) Phylogenetics Task View, **Co-maintainer, 2022-present**  
This task view describes R packages that (i) facilitate the handling, manipulation, and analysis of phylogenetic trees; (ii) implement comparative phylogenetic methods; (iii) apply phylogenetic methods to specific disciplines, <https://github.com/bomeara/PhylogeneticsTaskView/>

## TEACHING AND MENTORSHIP

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### Pedagogy

#### University of Michigan Natural History Museum

- Science Communication Certificate, Fall 2020
  - **Core trainings:** How people learn, facilitation strategies, presentation strategies.
  - Regular presentations on "how to think like an evolutionary biologist" to Ann Arbor Public School students. Winter-Spring 2020-2021, COVID-19 virtual outreach.

#### University of Michigan Center for Research on Learning and Teaching

- Postdoctoral Short Course on College Teaching in Science and Engineering, Winter 2020
  - Ten-week course, <https://crlt.umich.edu/programs/psc>

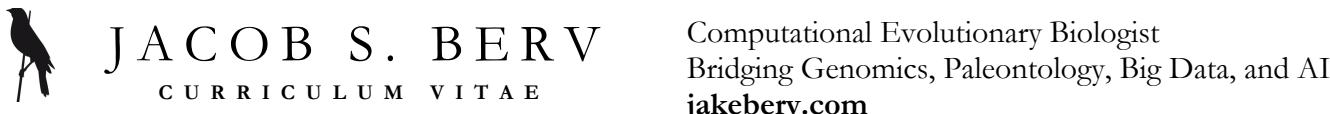
**Core trainings:** How students learn, cultivating an inclusive classroom, effective course design.

#### Cornell University, John. S. Knight Institute for Writing in the Disciplines

- Writing 7101: Writing in the Majors Seminar, Fall 2013.
  - **Core trainings:** incorporating writing instruction into major/discipline specific classes, course design and syllabus creation, strategies for fair grading and evaluation, feedback on writing across disciplines, classroom management.

### Graduate Teaching Assistant

- **BIOEE 1780:** Evolutionary Biology and Diversity. **Cornell University.**
  - As part of Cornell's 'Writing in the Majors' program (**Fall 2013, 2014, 2015, 2018**), I designed and lead four 15-week seminars to help undergraduates, including those from diverse backgrounds, engage with and write about primary scientific literature in inclusive and accessible formats, with guidance from the John S. Knight Institute for Writing in the Disciplines.
- **BIOEE 2650:** Tropical Field Ecology and Behavior (**Winter 2014**). **Cornell University.**
  - Intensive field course at Kenya's Impala Research Center, providing hands-on research experiences in diverse savannah and wetland ecosystems. Emphasized cross-cultural collaboration and making the



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course accessible to students from underrepresented backgrounds in STEM.

### Guest Lectures

1. Guest lecturer in Analytical Paleobiology EARTH 444, UM. November 2025. Molecular Systematics.
2. Guest lecturer in Analytical Paleobiology EARTH 444, UM. November 2023. Molecular Systematics.
3. Guest lecturer in Vertebrate Paleontology EARTH 437, December 6, 2021 – “The Evolution of Birds”  
Recording available: [https://bit.ly/Berv\\_EARTH437\\_2021](https://bit.ly/Berv_EARTH437_2021)
4. Guest lecturer in Phylogenetic Systematics; Cornell BioEE3730: Biodiversity and Biology of Marine Invertebrates

### Undergraduate Advisees

1. Daniel Williams, Yale College Class of 2011, Senior thesis project
2. Daniel Veronese, Cornell College of Arts and Sciences Class of 2017
3. Hyun Seok Yoon, Cornell College of Arts and Sciences Class of 2017
4. Andrew Dreelin, Cornell College of Arts and Sciences Class of 2018
5. Eric Sibbald, Cornell College of Arts and Sciences Class of 2016
6. Sean McHugh, Cornell College of Arts and Science Class of 2018
7. Matthew Granger, University of Bath, Class of 2019
8. Miranda Pless, University of Michigan, Class of 2023

### Graduate Student Advisees

9. Jonathan J. Hughes, Cornell University, PhD. (2016-2022)
10. Sean McHugh, University of Washington St. Louis, PhD. (2013-present)
11. Teresa Pegan, University of Michigan, PhD. (2017-2023)
12. Rafael Rivero-Vega, University of Michigan, PhD. (2019-present)
13. Charlotte Probst, University of Michigan, PhD. (2021-present)
14. Madisyn Guza, University of Michigan, Masters (2024-present)

## CONFERENCE PRESENTATIONS

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### 2025

#### **Evolution. Athens, Georgia. June 20-24, 2025. SSE Symposium Organizer (AI in Evolution)**

1. An inverse latitudinal gradient in body plan evolution reflects a legacy of deep-time radiations.

### 2024

#### **North American Paleontological Congress, Ann Arbor, Michigan. June 17-21, 2024**

2. 15,000 Passerine Skeletons Illuminate Time-Heterogeneous Patterns of Phenotypic Integration.

#### **Conference on Computer Vision and Pattern Recognition (CVPR). Seattle, WA. June 17-21, 2024**

3. Invited speaker at the *Computer Vision for Science* workshop, CVPR 2024, highlighting interdisciplinary research at the intersection of computer vision and scientific fields such as biology, neuroscience, and ecology.

#### **3rd Joint Congress On Evolutionary Biology, Montreal, CA.**

4. “15K Skeletons, or How I Learned to Stop Worrying and Love the Phenotype”

Recording available: [https://bit.ly/berv\\_evolution\\_2024\\_montreal](https://bit.ly/berv_evolution_2024_montreal)

### 2023

#### **Indo-Pacific Fish Conference. Auckland, New Zealand. November 20-24<sup>th</sup>, 2023.**

6. **Evolution. Albuquerque, New Mexico. June 21-25<sup>th</sup>, 2023.**

#### **Society of Systematic Biologists Standalone Meeting. México City, México. Jan. 14-15<sup>th</sup>, 2023.**

7. “Ghosts in the machine” of diversification analysis.

### 2022

#### **Evolution. Cleveland, Ohio. June 24-28<sup>th</sup>.**

8. Molecular early burst associated with the diversification of birds at the K-Pg boundary.

#### **The III Meeting of Systematics, Biogeography, and Evolution, Virtual, July 2022.**

9. Molecular early burst associated with the diversification of birds at the K-Pg boundary. Recording available:

[https://bit.ly/SBE\\_berv\\_2022](https://bit.ly/SBE_berv_2022) (long format talk)

## 2021

- American Society of Mammologists Meeting.** Virtual, June 14–18<sup>th</sup>.
- 10. Ecological selectivity and the evolution of mammalian arboreality across the K-Pg boundary. Presenter: J. J. H.
  - Evolution.** Virtual, June 21–25<sup>th</sup>.
  - 11. Molecular early burst associated with the diversification of birds at the K-Pg boundary.
  - 12. The influence of seasonal migration on molecular evolution in North American boreal birds. Presenter: T. P.

## 2020

- Society for Vertebrate Paleontology.** Virtual, October 12–17<sup>th</sup>.
- 13. Evolution of mammalian arboreality and the K-Pg mass extinction. Presenter: J. J. H.
- North American Ornithological Congress.** Virtual, August 10–15<sup>th</sup>.
- 14. Genomic Phylogeography of the White-crowned Manakin Illuminates a Continental-scale Radiation Out of the Andes. Invited Manakin Symposium Talk.

## 2018

- Evolution,** Montpellier, France. August 19–22<sup>nd</sup>
- 15. Recalcitrance of avian divergence times and phylogenetic topology may be related to selection for reduced body size across the K-Pg boundary. **Ernst Mayr Award Finalist Talk.**
- Society for Molecular Biology and Evolution, Yokohama Japan,** July 8–12<sup>th</sup>.
- 16. Recalcitrance of avian divergence times and phylogenetic topology may be related to selection for reduced body size across the K-Pg boundary. Divergence Time Methodologies Symposium Talk.

## 2017

- Society of Vertebrate Paleontology,** Calgary, Canada, August 23–26<sup>th</sup>.
- 17. Post K/Pg Extinction Lilliput Effect may influence avian molecular clocks. Special Symposium Talk.
- Ornithological Congress of the Americas,** Puerto Iguazú, Argentina, August 8–11<sup>th</sup>.
- 18. Genomic Phylogeography of the White Crowned Manakin (Aves: Pipridae) illuminates cryptic differentiation and extreme song evolution; Genomic Advances Symposium.

## 2016

- Geology Society of America,** Denver, Colorado, September 25–28<sup>th</sup>.
- 19. Post K/Pg Extinction Lilliput Effect may influence avian molecular clocks. Special Symposium.
- North American Ornithological Congress,** Washington, DC, August 16–20<sup>th</sup>.
- 20. Post K/Pg Extinction Lilliput Effect may influence avian molecular clocks.
- Evolution,** Austin, Texas, June 26–30<sup>th</sup>.
- 21. Post K/Pg Extinction Lilliput Effect may influence avian molecular clocks. **Hamilton Award Symposium Finalist.**

## 2015

- X Neotropical Ornithological Congress,** Manaus, Brazil, July 19–24<sup>th</sup>.
- 22. A genomic approach to species delimitation and historical biogeography of the White-Crowned Manakin. Special Symposium.
- Evolution,** Guarujá, Brazil, June 26–30<sup>th</sup>.
- 23. A Fully Resolved, Comprehensive Genomic Phylogeny of Birds (Aves) using Targeted Next Generation Sequencing.

## 2014

- Evolution 2014.** National Evolutionary Biology Synthesis Center, Raleigh, North Carolina, June 20–24<sup>th</sup>.

24. A comprehensive Multilocus Phylogeny of the Neotropical Cotingas.

## 2012

- First Joint Congress on Evolutionary Biology**, Ottawa, Ontario, Canada, July 6-10<sup>th</sup>.
25. Emberizoides (Aves: Thraupidae) population genetics reveal novel biogeographic connections across Amazonia.

## 2010

- 25<sup>th</sup> International Ornithological Congress, Campos do Jordão, São Paulo, Brazil**, August 25-29<sup>th</sup>.
26. Genetic data support Sipaliwini Savanna's affiliation with the Brazilian Cerrado.
  27. Using radio telemetry to discover cryptic avian nests in dense tropical forest.
- Evolution, Portland State University**, Portland, Oregon, June 25-29<sup>th</sup>.
28. The phylogeography of South American savanna birds: does genetic data support Sipaliwini savanna's ancestral affiliation with the Brazilian Cerrado?

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## INVITED TALKS

### 2026

1. **International Ornithological Congress (IOC)**, Invited Keynote Speaker, Symposium: *Macroevolution*. **Nov 2026**.

### 2025

2. **Geological Society of America (GSA) Connects Pardee Keynote Symposia**: Impact Cratering and the Evolution of Life. <https://doi.org/10.1130/abs/2025AM-11105>. **Oct 2025**.  
“*Tempo and Mode: Applying Phylogenetic Natural History to Integrate Micro- and Macroevolution across the K-Pg Boundary*”

### 2024

3. **3rd Annual Postdoctoral Symposium in Human Genetics, Department of Human Genetics, UM**  
“*15,000 Skeletons, or How I learned to Stop Worrying and Love the Phenotype*”  
<https://events.umich.edu/event/124297>

### 2023

4. **University of Toronto, Department of Ecology and Evolutionary Biology** (invited seminar)  
Recording available: <https://youtu.be/OFjJDjPANNI>

### 2022

5. **Okinawa Institute of Science and Technology**, October 12, 2022.  
Recording available: [https://bit.ly/berv\\_OIST\\_2022](https://bit.ly/berv_OIST_2022)
6. **University of Michigan Department of Ecology and Evolutionary Biology**, September 20, 2022.  
Recording available: [https://bit.ly/berv\\_umich\\_2022](https://bit.ly/berv_umich_2022)
7. **Cornell University, Department of Ecology and Evolutionary Biology: Evo Day 2022**, May 12, 2022
8. **University of Michigan Museum of Paleontology**, January departmental seminar

### 2021

9. **University of Michigan Department of Ecology and Evolutionary Biology**, October, departmental seminar  
Recording available: [https://bit.ly/berv\\_umich\\_2021](https://bit.ly/berv_umich_2021)
10. **Friends of the University of Michigan Museum of Paleontology**, June 4<sup>th</sup>.

### 2020

11. **University of Massachusetts Boston Fall 2020 Biology Seminar Series**, November 20, Host **Liam Revell**  
Embracing Uncertainty: Using Genomic, Anatomical, and Life-History Data to Integrate the Micro and Macroevolution of Birds.  
Recording available: [https://bit.ly/umb\\_berv\\_2020](https://bit.ly/umb_berv_2020)

### 2016

12. **Larry King Memorial Keynote Lecture**, Rochester Academy of Science Fall Paper Session, November 12<sup>th</sup>.  
SURVIVING THE MASS EXTINCTION: The Amazing Story of Bird Recovery and Radiation after the End Cretaceous Catastrophe.

13. **SUNY Orange Community College**, Invited Lecture, October  
Dino-Birds? How modern evolutionary biology has changed our understanding of bird diversity.
14. **Cornell Laboratory of Ornithology Fall Seminar** Invited Speaker, Ithaca NY, September.
15. SUNY ESF, Earth Week Invited Speaker, Syracuse, NY, April.

## 2015

16. **Cornell EEB EvoGroup Invited Seminar Speaker**, Ithaca, New York, February 5<sup>th</sup>.  
Breeding system and sexual dimorphism may be evolutionarily decoupled in the Neotropical cotingas.

## 2014

17. **Cornell Laboratory of Ornithology, Invited Seminar Speaker, Ithaca, New York.**  
A comprehensive Multilocus Phylogeny of the Neotropical Cotingas, September 15<sup>th</sup>.

## 2007-2013 (pre-PhD. Candidate)

18. **Centro Universitario Regional del Litoral Atlantico, La Ceiba, Honduras.**  
From Genes to Trees. March 20, 2013.
19. **Yale University, Davenport College Senior Symposium, New Haven, CT.**  
Phylogeography and the origin of species in Amazonia. April 28, 2010.
20. **Yale University, Davenport College Mellon Forum, New Haven, CT.**  
Phylogeography and the origin of species in Amazonia. April 6, 2010.
21. **Yale Institute for Biospheric Studies, New Haven, CT.**  
Phylogeography of Suriname's savanna birds & Radio tracking cryptic birds. Oral presentation, Dec 6, 2010.
22. **National Conservation Division of Suriname, Paramaribo, Suriname.**  
Population genetics of the birds inhabiting Surinamese savannas: Results of field research. August 20, 2009.
23. **Tzaneen Primary School, Limpopo Province, South Africa.**  
Series of team presentations on megafauna research, May 2008.
24. **Yachana Technical High School, Napo Province, Ecuador.**  
Series of team presentations on conservation research, June 2007.

## WET LABORATORY RESEARCH EXPERIENCE

1. Cornell Laboratory of Ornithology, Fuller Molecular Biology Lab, Ph.D. Candidate, Fall 2013-August 2019.
2. Yale University, PI: Richard O. Prum, Genetics Researcher, Sept. 2010-May 2013
3. Yale Institute for Biospheric Studies, Conservation Genetics Lab, B.S. Candidate, March 2009-May 2010.
4. Yale School of Medicine, Psychiatry, Molecular Neuroscience intern, Summer 2005, June 2007-January 2008

## FIELD RESEARCH AND BIOLOGICAL SPECIMEN COLLECTING

1. University of Michigan, Ecology and Evolutionary Biology, **Michigan, U.P.**, Boreal migrant collection, June 2022
2. Cornell University, Ecology and Evolutionary Biology, **Brazil**, Manakin vocalization survey, July 2015
3. Cornell University, Ecology and Evolutionary Biology, **Kenya** Field Ecology T.A., January 2014
4. Yale University, Ecology and Evolutionary Biology, **Honduras** Field Assistant, March 2013
5. Yale University, Ecology and Evolutionary Biology, **Guatemala** Field Assistant, October 2011
6. Boston University, Ecology and Evolution, Milne Bay, **Papua New Guinea** Field Assistant, April-June 2011
7. Yale University, Ecology and Evolutionary Biology, **Ecuador** Collecting Expedition Leader, November 2009
8. Yale Peabody Museum, Para District, **Suriname** Collecting Expedition Leader, August 2009
9. Karongwe Reserve, Limpopo Province, **South Africa** Field Assistant May-July 2008
10. Yachana Nature Reserve, **Ecuador** Field Assistant May-June 2007

## TECHNICAL WORKSHOPS

1. 'AI in Science Entrepreneurship,' The Banbury Center/Schmidt Sciences, LLC., October 2025.
2. 'Research Software Engineering,' Oxford University and Schmidt Sciences, LLC., September 2025.

3. 'Deep Learning For Biologists,' Physalia Courses, October 2023, virtual.
4. 'SSB Workshop on Phylogenetic Comparative Methods,' Chamela, México, January 2023.
5. 'Comparative Genomics' — Physalia Courses, March 2022, virtual.
6. 'Machine Learning in R' — Physalia Courses, February 2022, virtual.
7. 'Shiny App development in R' — Physalia Courses, January 2022, virtual.
8. 'Advanced R Programming' — Physalia Courses, January 2021, virtual.
9. 'Evolutionary Quantitative Genetics,' Friday Harbor Labs 2017 Workshop.
10. 'Next Gen Sequencing and Phylogenomics,' National Evolutionary Synthesis Center, Durham NC 2014.
11. 'Workshop on Phylogenetic Comparative methods', SSE/SSB/ASN Evolution Meeting: Guarujá, Brazil 2015.

## PHOTOGRAPHY RECOGNITION

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### **Yale Environmental News**

1. Fall 2011, Vol.17, No. 1. – The Challenge of Hunting Tropical Hummingbirds – photos only.
2. Fall/Winter 2009/2010. Vol. 15, No. 1– The ancestry and genetic differentiation of Surinamese savanna specialists.
3. Winter 2009 / Vol. 14, No. 1 – Karongwe Game Reserve Summer 2008 Research Report.

### **Natural History Magazine Online**

4. Another Tenderfoot: Reflections on lessons learned by another young scientist eighty years ago. Photos by Jacob Berv. <https://www.naturalhistorymag.com/endpaper/012456/another-tenderfoot>

### **Smithsonian**

5. Smithsonian.com photo of the day, December 17, 2009.

### **Photography awards and grants:**

6. Louis Sudler Award for the Creative and Performing Arts, Yale University, Fall 2008, Spring 2009, Spring 2010.
7. Photographer's Forum 29th Annual College Photography Contest Spring 2009. Finalist - *Ice Caves of Salzburg*
8. The Yale Globalist Magazine International Photography Contest Fall 2008. *Lions in Karongwe* – 2<sup>nd</sup> place.

## REFERENCES

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### **Primary**

1. **Brian Weeks**, Ph.D. Associate Professor, School for Environment and Sustainability, University of Michigan. [bcweeks@umich.edu](mailto:bcweeks@umich.edu). +1 614.216.9266
2. **Matt Friedman**, Ph.D., Director of the Museum of Paleontology, University of Michigan. [mfriedm@umich.edu](mailto:mfriedm@umich.edu). +1 734.764.0490
3. **Richard O. Prum**, Ph.D. W. R. Coe Professor of Evolutionary Biology, Yale University. [richard.prum@yale.edu](mailto:richard.prum@yale.edu). +1 203.432.9423

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7. **Amy McCune**, Ph.D. Senior Associate Dean, Faculty Curator of Ichthyology, Cornell University. [arm2@cornell.edu](mailto:arm2@cornell.edu). +1 607.254.6765
8. **Kristof Zyskowski**, Ph.D. Collections Manager, Yale Peabody Museum. [kristof.zyskowski@yale.edu](mailto:kristof.zyskowski@yale.edu). +1 203.432.9821