

Ethan Linck

Assistant Professor

Montana State University Department of Ecology

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Education

Ph.D., Biology. 2019. **University of Washington**, Seattle, WA

B.A., Biology. 2013. **Reed College**, Portland, OR

Professional Appointments

2023-present **Assistant Professor.** Department of Ecology, Montana State University

- Position Start Date: August 17th, 2023
- Distribution of Effort: 50% Teaching, 40% Research, 10% Service

2023 **Senior Research Scientist.** Department of Zoology & Physiology, UW Museum of Vertebrates, and The Biodiversity Institute, University of Wyoming.

2020-2023 **NSF Postdoctoral Research Fellow in Biology.** Department of Biology & Museum of Southwestern Biology, University of New Mexico.

2019-2020 **Postdoctoral Research Associate.** Department of Ecology & Evolutionary Biology, University of Tennessee, Knoxville.

Peer-reviewed Publications

- [23] Beever, E., Osterhoudt, E.*, **Linck, E.B.** Accepted. Genomic evidence for local adaptation to elevation and climate sheds new light on variable responses to global change in American pikas (*Ochotona princeps*). *Molecular Ecology*.
- [22] **Linck, E.B.** In press. What is an elevational range? *The American Naturalist*. pdf
- [21] **Linck, E.B.**, Cadena, C.D. In press. A latitudinal gradient of reference genomes. *Molecular Ecology*. pdf
 - Popular Press: *News from Science*, *Phys.org*
- [20] Semenov, G., Kenyon, H., Funk, E., Anderson, W., McQuillan, M., Spinelli, J., Russell, A., Martinez, N., Van Huynh, A., Alexander, A., Schweizer, R., **Linck, E.B.**, Chevron, Z., Carling, M., Roth, T., Robbins, M., Rice, A., Taylor, S. 2025. Replicate geographic transects across a hybrid zone reveal parallelism and differences in the genetic architecture of reproductive isolation. *Evolution Letters* qraf009. pdf
- [19] Jones, G.M., Goldberg, J.F., Wilcox, T.M., Buckley, L.B., Parr, C.L., **Linck, E.B.**, Fountain, E.D., Schwartz, M.K. 2023. Fire-adapted traits in animals. *Trends in Ecology & Evolution* 38(12) 1117-1118.
- [18] Jones, G.M., Goldberg, J.F., Wilcox, T.M., Buckley, L.B., Parr, C.L., **Linck, E.B.**, Fountain, E.D., Schwartz, M.K. 2023. Fire-driven animal evolution in the Pyrocene. *Trends in Ecology and Evolution* (38)11, 1072-1084.
 - Popular Press: *High Country News*, *The Washington Post*, *Vox*, *Nutilus*
- [17] Williamson, J.L., **Linck, E.B.**, Bautista, E., Smiley, A., McGuire, J.A., Dudley, R., Witt, C.C. 2023. Hummingbird blood traits track oxygen availability across space and time. *Ecology Letters* 26(7), 1223-1236.

- [16] **Linck, E.B.**, Williamson, J.L., Bautista, E., Beckman, E.J., Benham, P.M., DuBay, S.G., Flores, L.M., Gadek, C.R., Johnson, A.B., Jones, M.R., Núñez-Zapata, J., Quiñonez, A., Schmitt, C.J., Susanibar, D., Tiravanti, J., Verde-Guerra, K., Wright, N.A., Valqui, T., Storz, J.F., Witt, C.C. 2023. Blood variation implicates respiratory limits on elevational ranges of Andean birds. *The American Naturalist* 201(5), 741-754.
- [15] Pujolar, J.M., Blom, M.P.K., Reeve, A.H., Kennedy, J.D., Marki, P.M., Freeman, B.G., Sam, K., **Linck, E.B.**, Haryoko, T., Iova, B., Koane, B., Maia, G., Paul, L., Irestedt, M., Jønsson, K.A. 2022. Barriers and gradients: the formation of montane diversity. *Nature Communications* 13, 268.
 - Popular Press: *Phys.org*
- [14] **Linck, E.B.**, Freeman, B.G., Cadena, C.D., Ghalambor, C.K. 2021. Evolutionary conservatism will limit responses to climate change in the tropics. *Biology Letters* 17(10), 20210363.
- [13] Semenov, G.A., **Linck, E.B.**, Enbody, E.D., Harris, R.B., Khaydarov, D.R., Alström, P., Andersson, L., Taylor, S.A. 2021. Asymmetric introgression reveals the genetic architecture of a plumage trait. *Nature Communications* 12, 1019.
- [12] Mamantov, M.A., Gibson-Reinemer, D.K., **Linck, E.B.**, Sheldon, K.S. 2021. Climate-driven range shifts of montane species vary with elevation. *Global Ecology and Biogeography* 30(4), 784-794.
- [11] **Linck, E.B.**, Freeman, B.G., Dumbacher, J.P. 2020. Speciation and gene flow across an elevational gradient in New Guinea kingfishers. *Journal of Evolutionary Biology* 33(11), 1643-1652.
- [10] **Linck, E.B.**, Fricke, E., Rogers, H. 2020. Varied abundance and functional diversity in the surviving bird communities of the Mariana Islands. *The Wilson Journal of Ornithology* 132(1), 22-28.
- [9] **Linck, E.B.**, Celi, J.E., Sheldon, K.S. 2020. Panmixia across elevation in thermally sensitive Andean dung beetles. *Ecology and Evolution* 10(9), 4143-4155.
- [8] **Linck, E.B.**. 2020. Bird Species: How They Arise, Modify and Vanish. *The Auk* 137, 1-2.
- [7] **Linck, E.B.**, Epperly, K., van Els, P., Spellman, G.M., Bryson Jr., RW., Canales-del-Castillo, R., McCormack, J.E., Klicka, J. 2019. Dense geographic and genomic sampling reveals paraphyly and a cryptic lineage in a classic sibling species complex. *Systematic Biology* 68(6), 956-966.
- [6] **Linck, E.B.**, Battey, C.J. 2019. Minor allele frequency thresholds strongly affect population structure inference with genomic datasets. *Molecular Ecology Resources* 19(3), 639-647.
- [5] **Linck, E.B.**, Huber, H.C., Greeney, H.F., Sheldon, K.S. 2019. Nesting biology of the Blue-and-white Swallow (*Pygochelidon cyanoleuca*) in northeastern Ecuador. *Ornitología Neotropical* 30, 5-10.
- [4] Battey, C.J., **Linck, E.B.**, Epperly, K.L., French, C., Slager, D., Klicka, J. 2018. A Migratory Divide In The Painted Bunting (*Passerina ciris*). *The American Naturalist* 191(2), 259-268.
- [3] **Linck, E.B.**, Hanna, Zachary R., Sellas, A., Dumbacher, J.P. 2017. Evaluating hybridization capture with RAD probes as a tool for museum genomics with historical bird specimens. *Ecology and Evolution* 7(8).
- [2] **Linck, E.B.**, Bridge, E.S., Duckles, J., Navarro-Sigenza, A.G., Rohwer, S. 2016. Assessing migration patterns in Painted Buntings using the world's bird collections as an aggregated resource. *PeerJ* 4:e1871.
- [1] **Linck, E.B.**, Schaack, S., Dumbacher, J. 2015. Genetic differentiation within a widespread "supertramp" taxon: molecular phylogenetics of the Louisiade White-eye (*Zosterops griseotinctus*). *Molecular Phylogenetics and Evolution* 94(A), 113-121.
- [0] **Linck, E.B.**. 2010. Notes on birds and logistics from the south side of Mount Giluwe, SHP. *Muruk* 10(1), 4-7.

In Review / In Revision

- Beever, E. A., Peacock, M. M., Wilkening, J. L., Billman, P. D., Ernest, K. A., Klinger, K. B., Nichols, L. B., **Linck, E.B.**, Schmidt, D. A., Monk, E. M., Thorne, J. H., Russello, M. A., Gill, A., Beers, A. T., Westover, M. L., Stewart, J. A. E., Bhattacharyya, S., Waterhouse, M., Billings, R., Clark, S. L., Cutting, K. A., Einfeldt, T., Epps, C., Gonzalez, A., Hayes, C., Hood, J., Penzel, N., Robinson, M., Ryals, D. K., Smith, C., Svancara, L. C., Stevens, S., Thompson, W. T. In review. Evaluating strength of evidence and drivers for species-climate relationships, across space and time. *Conservation Biology*.
- **Linck, E.B.**, Battey, C.J. In revision. On the relative ease of speciation with periodic gene flow. *The American Naturalist*.

(* indicates graduate student mentee coauthor)

Funding

Total awarded funds: \$514,257:

2025-2028	Climate Change Genomics of American Pikas in the Southern Rocky Mountains. Western National Parks Association. \$59,873.
2023	Genetic load in naturally range-restricted birds. College of Letters & Science GRA Ph.D. Award. \$8,500*. (*Declined after failing to recruit a student.)
2020-2023	Population genomics of elevational range limits in Andean birds. National Science Foundation Postdoctoral Research Fellowship in Biology. \$207,000.
2019	Anthropogenic hybridization in New Guinea honeyeaters. American Ornithological Society Kessel Fellowship for Ornithological Research (declined for NSF PRFB). \$15,000.
2018	Genomic signatures of peripatric differentiation in New Guinea mountain birds. American Museum of Natural History Chapman Award. \$2000.
2017-2019	Dissertation Research: Investigating genomic signatures of speciation in tropical montane kingfishers (Aves: Halcyonidae). National Science Foundation Doctoral Dissertation Improvement Grant. \$20,084.
2016-2019	NDSEG Fellow. U.S. Department of Defense. \$172,000.
2016-2018	Dissertation research awards (multiple). University of Washington Department of Biology. \$21,100.
2015	Evolution and genetic basis of the “supertramp” strategy: phylogenomics of the Myzomela [lafargei] honeyeater radiation in Northern Melanesia. Society of Systematic Biologists Graduate Student Research Award. \$1,500.
2010-2012	Undergraduate research awards (multiple). Reed College Department of Biology. \$5,700.
2009	Herpetological and avifaunal sampling in the Bewani Mountains, Papua New Guinea. Explorers Club Youth Activity Fund. \$1,500.00

Pending Funding

2026-2031	CAREER: Adaptive potential of migratory timing in a montane songbird. National Science Foundation Evolutionary Processes Cluster. \$1,312,256.
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Unsuccessful Funding

- 2025-2028 Collaborative Research: Microevolutionary impacts of wildfire on subalpine animal communities in Western North America. **National Science Foundation Organismal Responses to Climate Change.** \$847,981.

Presentations

Invited Presentations

- 2024 **Linck, E.** Ecological and Historical Constraints on Elevational Ranges in Birds. MInstitute on Ecosystems Rough Cut Seminar Series, Montana State University, Bozeman, MT.
- 2024 **Linck, E.** Ecology, Evolution, and Ontology of Elevational Ranges. Dean's Lecture Series, St. John's College, Santa Fe, NM.
- 2023 **Linck, E.** Climate fidelity, genetic variation, and evolutionary potential. University of Arizona School of Natural Resources and the Environment Seminar Series, Tucson, AZ.
- 2022 **Linck, E.** Thinking about glacial cycles and speciation with periodic gene flow. USFS Rocky Mountain Research Station 'Agora' Meeting, Missoula, MT.
- 2022 **Linck, E.** Blood oxygen-carrying capacity and elevational range breadth in Andean birds. University of Wyoming Zoology & Physiology Seminar Series, Laramie, WY.
- 2022 **Linck, E.** Biodiversity, culture, and conservation in New Guinea. Job Talk, Adams State University, Alamosa, CO.
- 2022 **Linck, E.** The evolution of elevational specialization (and why studying it is hard). University of Montana Evolution and Ecology Seminars, Missoula, MT.
- 2019 **Linck, E.** Niche conservatism, speciation, and range limits on tropical mountainsides. Louisiana State University Museum of Natural Science Seminar Series, Baton Rouge, LA.
- 2019 Sheldon, K.S., **Linck, E.** (Joint presentation.) Fisiologia termica, distribuciones y especiacion en los tropicos. Universidad Regional Amazoonica Ikiam Seminar Series, Tena, Napo, EC.
- 2019 **Linck, E.** Confronting the Recreation-Conservation Divide: A Dialogue (Stegner Lecture). University of Utah Law School Wallace Stegner Center 24th Annual Symposium - Recreation Challenges on Public Lands, Salt Lake City, UT.
- 2019 **Linck, E.** Natural selection, gene flow, and complexity in avian speciation. Pacific Lutheran University Biology Seminar, Tacoma, WA.
- 2018 **Linck, E.** 2018. Outdoor Recreation and Land Ethics for the 21st Century. Restoring the West: Multiple Use and Sustained Yield of Resources on Public Land: Is It Still Possible?, Logan, UT.
- 2018 **Linck, E.**, Freeman, B.G., Dumbacher, J., Klicka, J. 2018. What we talk about when we talk about speciation with gene flow in birds. University of New Mexico Brown Bag Seminar, Albuquerque, NM.
- 2017 **Linck, E.**, Freeman, B.G., Dumbacher, J., Klicka, J. Why are there so many bird species in tropical mountains? Insights from genomics and New Guinea kingfishers. University of the South Pacific PaCE-SD Seminar, Suva, Fiji.

Contributed Presentations

- 2021 **Linck, E..** Respiratory plasticity and elevational range breadth in Andean birds. American Ornithological Society Meeting. Virtual.
- 2020 **Linck, E..** Early Professionals Mini-Talk Symposium. North American Ornithological Congress VII. Virtual.

- 2019 **Linck, E.**, Celi, J.E., Sheldon, K.S. Climate as a barrier to dispersal over mountain passes: is gene flow reduced across elevational gradients in tropical Andean beetles? Ecological Society of America Meeting, Louisville, KY.
- 2019 **Linck, E.**, Battey, C.J. 2019. Pleistocene glacial cycles and the relative ease of speciation with periodic gene flow. American Ornithological Society Meeting, Anchorage, AK.
- 2018 **Linck, E.**, Freeman, B.G., Dumbacher, J., Klicka, J. Ecological speciation across an elevational gradient in New Guinea Kingfishers? American Ornithological Society Meeting, Tucson, AZ.
- 2017 Battey, C.J., **Linck, E.**, Epperly, K.L., French, C., Slager, D., Klicka, J. 2017. A Migratory Divide In The Painted Bunting (*Passerina ciris*). (Co-presented poster.) Evolution Meetings, Portland, OR.
- 2016 **Linck, E.**, Sellas, A., Hanna, Z., Dumbacher, J. 2016. hyRAD, museum genomics, and the phylogeography of a New Guinea forest kingfisher. Evolution Meetings, Austin, TX.

Honors & Awards

- 2022 Elective Member, **American Ornithological Society**.
- 2016 Honorable Mention, **NSF Graduate Research Fellowship Program**
- 2015 Honorable Mention, **NSF Graduate Research Fellowship Program**
- 2011 Commendation for Excellence, **Reed College Junior Qualifying Exam**.

Courses Taught

As Instructor of Record (100%)

- 2025-present BIOB470: Ornithology. Montana State University, Bozeman, MT. 3.0 Credit Hours. Every Fall.
- 2023-present BIOB480/BIOE548: Conservation Genetics. Montana State University, Bozeman, MT. 3.0 Credit Hours. Every Fall.

As Co-instructor of Record (50%)

- 2024 BIOB170: Principles of Biodiversity. Montana State University, Bozeman, MT. 1.5 Credit Hours. Spring 2024, Fall 2024.

Graduate Student Mentoring & Advising

Graduate Students Advised

Elizabeth Osterhoudt, Ph.D. student, 2024-present; co-advised with Erik Beever (USGS NOROCK)

- Population genomics of American Pikas in New Mexico; Indigenous science
- NSF LSAMP Fellowship and WNPA

Jason Gregg, M.S. student, 2023-present

- Conservation genomics of Micronesian Starlings
- Teaching and Research Assistantship

Graduate Student Committees

<u>Year</u>	<u>Student</u>	<u>Degree</u>	<u>Department</u>	<u>Advisor</u>
2025 – present	Jessica Burbano-Hernandez	M.Sc.	Ciencias Biologicas, Universidad de los Andes	Daniel Cadena
2025 – present	Nathaniel Heili	Ph.D.	Ecology	Wyatt Cross
2023 – present	Del Hannay	Ph.D.	Plant Sciences & Plant Pathology	Ryan Thum

Undergraduate Mentoring & Advising*Undergraduate Research*

<u>Year</u>	<u>Student</u>	<u>Position</u>	<u>Project</u>
2025 - present	Nathan Ingelfinger	Undergraduate Researcher	Biodiversity data science; bird surveys
2025	Finn Addison	Paid Research Assistant	Molecular lab techniques and management

Selected Popular Writing

I regularly (~1x/year) draw on my training to write reported essays and perspectives on science, biodiversity, and conservation for a general audience as a freelance journalist. A selection of examples follows:

- 2025 ‘De-extinction’ isn’t real, but the conservation questions it raises are. *High Country News*.
- 2021 Cataclysms to Desolate the World. *Hypocrite Reader* 96.
- 2020 Throwing wolves to the vote. *High Country News*.
- 2018 Your stoke won’t save us. *High Country News*.
- 2018 Darwinian Sexual Selection and the Politics of Beauty 2018. *Los Angeles Review of Books*.
- 2017 Bidding a Woeful Farewell to NSF’s Doctoral Dissertation Improvement Grant (DDIG) Program *Undark Magazine*.
- 2017 Food Evolution (Review). 2017. *The Stranger*.
- 2017 Keep it Public. 2017. *Jacobin Magazine*.
- 2017 How Trump’s War on Science Might Hurt the University of Washington. *The Stranger*.
- 2017 El Oso Plateado. *Hypocrite Reader* 39.

Field Experience

I have extensive experience with fieldwork and natural history travel in the Neotropics, Paleotropics, and Western North America, where I have collected genetic material and scientific specimens of birds and insects, conducted bird surveys and monitored vegetation plots, and collected climatic data with a variety of instruments and loggers. This background informs my research interests and agenda:

- 2024 *West New Britain Province, Papua New Guinea*. Collected photo and audio vouchers and conducted ethno-ornithological interviews and bird surveys in the Whiteman Range.
- 2023 *Colón Province, Panama*. Helped M. Chmielewski with fieldwork on Barro Colorado Island.
- 2022 *Guaviare Province, Colombia*. Helped G. Seeholzer record audio vouchers of riparian bird communities.
- 2021 *New Mexico, USA*. Point count surveys breeding bird elevational ranges as part of the Mountain Bird Network.
- 2020 *Napo Province, Ecuador*. Collecting climate data for postdoctoral research with K. Sheldon.

- 2019 *Napo Province, Ecuador.* Collecting dung beetles for postdoctoral research with K. Sheldon.
- 2018 *Madang Province, Papua New Guinea.* Collecting specimens and genetic material for dissertation research.
- 2018 *E Oregon, USA.* General collecting for UWBM Ornithology.
- 2018 *Napo Province, Ecuador* Collecting dung beetles for collaboration with K. Sheldon.
- 2017 *Chimbu Province, Papua New Guinea.* Collecting genetic material for dissertation research.
- 2017 *E Oregon, USA.* General collecting for UWBM Ornithology.
- 2015 *Idaho & SE Washington, USA.* General collecting for UWBM Ornithology.
- 2014 *Colorado, USA.* Managing *Boechera* common garden plots along an elevational transect.
- 2013-2014 *Colorado, USA.* Winter caretaker at snowbound Rocky Mountain Biological Laboratory field station.
- 2012 *Monteverde, Costa Rica.* Bird surveys of pasture trees and pitfall trapping of dung beetles.
- 2010 *Sandaun Province, Papua New Guinea.* Mist netting and point count bird surveys.
- 2010 *Oregon, USA.* Bird banding assistant at a wetland molt migrant stopover site.
- 2010 *Michoacan, Mexico.* Assistant naturalist, Expedition Travel / University of Florida group tour of Monarch butterfly colonies.
- 2009 *Southern Highlands Province, Papua New Guinea.* Naturalist in residence, Ambua Lodge.
- 2008 *Gulf Province, Papua New Guinea.* 2008. GIS mapping of clan boundaries, Crater Mountain Wildlife Management Area.

Service & Outreach Activities

Departmental

- 2024 Reviewer, Irby Graduate Student Scholarships
- 2023 Reviewer, Jim Posewitz Graduate Student Scholarships

University

- 2023-present Co-organizer, Evolutionary Genetics reading group
- 2023-present Member, Genetics Minor Committee
- 2024 Faculty Search Committee Member, Assistant Professor in Plant Evolution (Plant Sciences & Plant Pathology)

Professional

- Ongoing Peer reviewer for *PNAS*, *Conservation Genetics*, *The Auk*, *Systematic Biology*, *Molecular Ecology*, *Evolution*, *Evolution Letters*, *The American Naturalist*, *Molecular Ecology Resources*, *Molecular Phylogenetics and Evolution*, *PeerJ*, *Axios Review*, *Ecological Applications*, *PLoS ONE*, *Ecosphere*, *Heredity*, *Genes, Genomes, Genetics*, *Proceedings of the Royal Society B*, *The Wilson Journal of Ornithology*, *Journal of Biogeography*, *Bulletin of the British Ornithologists' Club*, *Ecological Entomology*, *Emu*, *Ecology and Evolution*, *Journal of Caribbean Ornithology*, *Biology Letters*, *Revista de Biología Tropical*, *Biotropica*, *Journal of Thermal Biology*, *Wildlife Biology*, *Zoological Journal of the Linnean Society*, *Journal of Evolutionary Biology*, *Integrative and Comparative Biology*, *The Wildlife Society Bulletin*, *Ornithology*, *Ecology Letters*, *PLoS Biology* (and others; ~10 per year)

- Ongoing Periodic scientific specimen preparation for UWBM, CAS, MSB, and UWYMV ornithology collections

- 2024 Background interview on phylogenies and biodiversity monitoring with *The New York Times* reporter Amy Harmon
- 2024 Panelist, National Science Foundation Division of Environmental Biology Evolutionary Processes Cluster
- 2024 Interview with Australian Broadcasting Company's "Pacific Beat" program on extinction of Guam Bridled White-eye
- 2023 External Reviewer, National Science Foundation Division of Environmental Biology Evolutionary Processes Cluster (1 proposal)
- 2022 External Reviewer, National Science Foundation Division of Environmental Biology Evolutionary Processes Cluster (1 proposal)
- 2020 Co-organizer, international virtual reading group on Andean ornithology
- 2020 Volunteer, Museum of Southwestern Biology Open House event
- 2020-2021 Reviewer, Society of Systematic Biologists Graduate Student Research Awards
- 2018 Member, University of Washington Graduate-lead Action on Diversity and Equity committee
- 2016-2018 Contributor, *The Molecular Ecologist* blog
- 2016 Volunteer, California Academy of Sciences "Night at the Museum" outreach event
- 2014-2019 Volunteer, Burke Museum of Natural History & Culture open house events (multiple)
- 2015 Co-organizer, University of Washington graduate student phylogenetics reading group
- 2015-2015 Prospective Graduate Student Host, University of Washington Department of Biology

Society Membership

The American Ornithological Society, The Society for the Study of Evolution, The American Society of Naturalists, The Society of Systematic Biologists, The Society for Conservation Biology