
Evolution, Ecology and Organismal Biology – The Ohio State University
318 W. 12th Ave., 300 Aronoff Laboratory, Columbus, OH, 43210

POSITIONS AND APPOINTMENTS

Ohio State University	Postdoctoral Researcher	2020–Present
Am. Museum of Natural History	Research Associate	2020–Present

EDUCATION

Richard Gilder Graduate School	Ph.D. Comparative Biology	2016–2020
Columbia University	M.A. Conservation Biology	2014–2016
Cornell University	B.A. Ecology and Evolutionary Biology	2010–2014

PUBLICATIONS AND MANUSCRIPTS

H-index: 5

8. **Provost, Kaiya**; Shue, Yun; Forcellati, Meghan; Smith, Brian. In review. The genomic landscapes of desert birds are structured by contemporary features. Preprint available at bioRxiv: <https://doi.org/10.1101/2022.03.07.483329>.
7. **Provost, Kaiya**; Yang, Jiaying; Carstens, Bryan. In review. The impacts of transfer learning, phylogenetic distance, and sample size on big-data bioacoustics. Preprint available at bioRxiv: <https://doi.org/10.1101/2022.02.24.481827>.
6. Tobias, Joseph; Sheard, Catherine; Pigot, Alex; Neate-Clegg, Montague; [...] **Provost, Kaiya**; [...] Schleuning, Matthias. 2022. AVONET: morphological, ecological and geographical data for all birds. *Ecology Letters*, 25(3), 581-597. <https://doi.org/10.1111/ele.13898>
Press: [UMich](#), [All About Birds](#).
5. Ingala, Melissa; Simmons, Nancy; Wiltsch, Claudia; Krampis, Konstantinos; **Provost, Kaiya**; Perkins, Susan. 2021. Molecular diet analysis of neotropical bats based on fecal DNA metabarcoding. *Ecology and Evolution*, 11, 7474-7491. doi.org/10.1002/ece3.7579.
4. **Provost, Kaiya**; Myers, Edward; Smith, Brian. 2021. Community phylogeographic patterns reveal how a barrier filters and structures taxa in North American warm deserts. *Journal of Biogeography*, 48(6), 1267-1283. doi.org/10.1111/jbi.14115.
3. **Provost, Kaiya**; Mauck, William; Smith, Brian. 2018. Genomic divergence in allopatric Northern Cardinals of the North American warm deserts is linked to behavioral differentiation. *Ecology and Evolution*, 8(24), 12456-12478. doi.org/10.1002/ece3.4596.
Press: [AMNH](#), [Audubon](#), [Gizmodo](#).
2. **Provost, Kaiya**; Smith, Brian; Joseph, Leo. 2018. Resolving a phylogenetic hypothesis for parrots: implications from systematics to conservation. *Emu – Austral Ornithology*, 118(1), 7-21. DOI.10.1080/01584197.2017.1387030.
1. **Provost, Kaiya**. 2015. Little Nightjar (*Setopagis parvula*), Neotropical Birds Online (T. S. Schulenberg, Ed.). Ithaca: Cornell Lab of Ornithology; retrieved from Neotropical Birds Online: http://neotropical.birds.cornell.edu/portal/species/overview?p_p_spp=221016

IN-PREP PUBLICATIONS

3. **Provost, Kaiya**. In prep. subspLabelR: a new R package to automatically label subspecies based on occurrence data.
2. **Provost, Kaiya**; Yang, Jiaying; Carstens, Bryan. In prep. Big-data bioacoustics, biogeography, and biases in birds.
1. **Provost, Kaiya**; Smith, Brian. In prep. Local adaptation matters for desert birds after divergence across barriers, not before.

GRANTS

Total Grants: \$213,033

National Science Foundation	DEB-2016189, Postdoc Co-PI 2020	\$199,833
Richard Gilder Graduate School	Sydney Anderson Travel Award 2019	\$2,000
AMNH Ornithology	Gormezano Memorial Grant 2018	\$800
Richard Gilder Graduate School	Sydney Anderson Travel Award 2018	\$2,500
Society of Systematic Biologists	Grad Student Research Award 2017	\$1,700
American Ornithological Society	AOS Award 2017	\$2,500
AMNH Ornithology	Gormezano Memorial Grant 2017	\$1,200
American Ornithologists Union	Wetmore Award 2016	\$2,500

FELLOWSHIPS, AWARDS, AND HONORS

Postdoctoral Training

Society of Systematic Biologists	Excellence Award Symposium Winner	2021
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Ph.D. Training

N. Am. Ornithological Conference	Student Presentation Honorable Mention	2020
Society of Systematic Biologists	Travel Award	2020
American Ornithological Society	Student Presentation Honorable Mention	2019
Society of Systematic Biologists	Ernst Mayr Symposium Finalist	2019
American Society of Naturalists	Travel Award	2019
American Ornithological Society	Travel Award	2018
Society of Systematic Biologists	Travel Award	2017
Richard Gilder Graduate School	Ph.D. Fellowship	2016–2020

M.A. Training

Columbia University	Alfred Russel Wallace Award	2016
Cooper Ornithological Society	Travel Award	2016
Columbia University	Dept. of E3B Thesis Grant	2015

Undergraduate Training

Cornell University	Dean's List	2013–2014
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CONFERENCE PRESENTATIONS

Postdoctoral Training

Provost, Kaiya; Yang, Jiaying; Carstens, Bryan. *Big-data bioacoustics, biogeography, and biases in birds / Uso de Macrodatos en Aves para Bioacústica, Biogeografía, y Sesgos*. Talk presented at: 2022 Joint Conference of AOS and Birds Caribbean; Jun. 30 2022; San Juan, Puerto Rico, USA.

Yang, Jiaying; **Provost, Kaiya**; Carstens, Bryan. Automatically extracted vocalization data by

machine learning model corroborate evidence that two subspecies of the White-crowned Sparrow have divergent songs. Poster presented at: Evolution 2022 Conference; Jun. 25 2022; Cleveland, OH.

Provost, Kaiya; Yang, Jiaying; Carstens, Bryan. *Big-data bioacoustics, biogeography, and biases in birds*. Talk presented at: 2021 Joint Virtual Meeting of the AOS and SCO-SOC; Aug. 9 2021; Virtual.

Ph.D. Training

Provost, Kaiya. Society of Systematic Biologists' Excellence Symposium: *Heterogeneity characterizes early diversification across a biogeographic barrier*. Talk presented at: Virtual Evolution 2021; Jun. 24 2021; Virtual.

Provost, Kaiya; Shue, Stephanie; Forcellati, Meghan; Smith, Brian. *Landscape genomics of desert birds reveals that multiple mechanisms cause heterogeneity across chromosomes and species*. Talk presented at: Virtual Stand Alone Conference of The American Society of Naturalists 2021; Jan. 11 2021; Virtual.

Provost, Kaiya; Shue, Stephanie; Forcellati, Meghan; Smith, Brian. *Landscape genomics of desert birds reveals that multiple mechanisms cause heterogeneity across chromosomes and species*. Talk presented at: North American Ornithological Conference 2020; Aug. 14 2020; Virtual.

Provost, Kaiya; Shue, Stephanie; Forcellati, Meghan; Smith, Brian. *Environmental impacts structuring genomic and phenotypic variation in desert birds*. Talk presented at: Society of Systematic Biology 2020 Standalone Meeting: Systematics in the Swamp; Jan. 5 2020; Gainesville, FL.

Provost, Kaiya. *Environment Wins! Using SDMs to Assess Drivers of Morphological Divergence in Desert Birds*. Talk presented at: New York Regional Species Distribution Modeling Meeting; Dec. 2 2019; New York, NY.

Provost, Kaiya; Shue, Stephanie; Forcellati, Meghan; Smith, Brian. *Comparative genomics and modes of differentiation in North American warm desert birds*. Talk presented at: American Ornithological Society 137th Stated Meeting; Jun. 26 2019; Anchorage, AK.

Provost, Kaiya; Shue, Stephanie; Forcellati, Meghan; Smith, Brian. Ernst Mayr Symposium: *Comparative genomics and modes of differentiation in North American warm desert birds*. Talk presented at: Evolution Meeting; Jun. 22 2018; Providence, RI.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Population genomics of Southwestern Desert Birds*. Talk presented at: American Ornithological Society 136th Stated Meeting; Apr. 13 2018; Tucson, AZ.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Genomic differentiation in Northern Cardinals of the North American warm deserts is maintained by behavioral isolation*. Talk presented at: Metropolitan Society of Natural Historians Sixth Annual Symposium; Feb. 25 2018; New York, NY.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Genomic divergence across a barrier is mediated by song dialects*. Poster presented at: Evolution; Jun. 24 2017; Portland, OR.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Song dialect mediates genomic divergence across a barrier*. Poster presented at: Social Evolution and Genome Complexity Symposium; Mar. 3 2017; New York, NY.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Testing the permeability of a barrier using integrative phylogeography*. Talk presented at: Society of Systematic Biologists Standalone

Meeting; Jan. 10 2017; Baton Rouge, LA.

M.A. Training

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Genetic and behavioral divergence among Northern Cardinal populations: Testing the permeability of a biogeographic barrier*. Talk presented at: North American Ornithological Conference; Aug. 18 2016; Washington, DC.

Provost, Kaiya; Mauck, William, III; Smith, Brian. *Genetic and behavioral divergence in a songbird across a barrier*. Poster presented at: Women in Science at Columbia Graduate Research Symposium; Apr. 23 2016; New York, NY.

Pian, Rebecca; Gill, Lucy; **Provost, Kaiya;** Wray, Amy; Cracraft, Joel. *The First American Biotic Interchange: finding congruence in fossil and molecular data*. Paper presented at: Society of Vertebrate Paleontology Meeting; Oct. 12-17 2015; Dallas, TX.

TEACHING EXPERIENCE

Instructor of Record

The Ohio State University	Instructor, Bioacoustics of Ohio	2022
Black Rock Forest	Summer Science Camp, Middle School	2018

Guest Lecturer

The Ohio State University	Guest Lecturer, Birds of Ohio	2021–2012
The Spence School	Scientist-in-Residence, 5th Grade	2020

Teaching Assistant

Hunter College, CUNY	Adjunct Professor, Intro to Comp. Sci.	2018
Columbia University	Life Systems/Environmental Biology II	2016
Columbia University	Environmental Biology I	2015–2016
Cornell University	Human Biology and Evolution	2013–2014

Mentoring

AMNH	Mentoring Undergraduate Student	2022– <i>Present</i>
AMNH	Mentoring Undergraduate Student	2020–2022
AMNH	Mentoring High School Student	2018–2019
AMNH	Mentoring High School Student	2017–2018

RESEARCH EXPERIENCE

Postdoctoral Training

HDR Institute	Imageomics	2021– <i>Present</i>
The Ohio State University	North American bird phylogeography	2020– <i>Present</i>
The Ohio State University	Big-data bird bioacoustics	2020– <i>Present</i>

Ph.D. Training

Richard Gilder Graduate School	Simulation and machine learning	2018–2020
Richard Gilder Graduate School	Avian speciation across barriers	2016–2020
Richard Gilder Graduate School	Parrot systematics and phylogeny	2016–2020

M.A. Training

Columbia University	Northern Cardinal genetics and behavior	2014–2016
Research Assistant, Marina Cords	Primate behavioral anthropology	2014–2016

Undergraduate Training

Burke Museum	Ornithology collections volunteer	2014
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Cornell University	Mistletoe invasions on junipers	2014
Cornell University	Habitat and bird flush distances	2014
Cornell University	Eastern Grey Squirrel behavior	2011

PROFESSIONAL MEMBERSHIPS

American Ornithological Society • Women in Natural Sciences, AMNH Chapter
 Sigma Xi • Society of Systematic Biologists • Society for the Study of Evolution
 Women in Science at Columbia • American Society of Naturalists
 Underrepresented Genders in Museum Ornithology • 500 Women Scientists

SKILLS

Python • R • Octave/Matlab • Linux • SLiM • Next-Generation Sequencing • ArcGIS • QGIS
 Sanger Sequencing • Playback Experiments • Statistical Analyses • Open Office
 Video Editing • Scientific Collection • Specimen Preparation • Microsoft Office

LEADERSHIP AND OUTREACH

Postdoctoral Training

Columbus Science Pub	Invited Speaker	2022
Western Cuyahoga Audubon	Invited Speaker	2021
The Ohio State University	Natural History Collections Club Mentor	2021– <i>Present</i>
AMNH	Science and Nature Program: Collections	2021
AMNH	Young Scientists: Birding 101	2021
Dispatches from the Field	Guest Blogger	2021

Ph.D. Training

AMNH	Milstein Science Series: Polar Bears	2020
GSTEM	Panel Speaker	2019
Biology on Tap	Invited Speaker: Deserts	2019
Bergen County Academies	Research Expo Judge	2019
AMNH	Superb Owl Animal Trivia	2019
AMNH	Instagram Research Outreach	2019
AMNH	Mentoring Circle Leader	2018–2019
AMNH	Meet the Scientist	2018
AMNH	Identification Day	2018
AMNH	Member Open House	2018
Women in Natural Sciences	Steering Committee, Social Chair	2018–2020
AMNH	Annual Family Party	2017
AMNH	Los Sueños del Caribe	2017
AMNH	Member Open House	2017–2018

M.A. Training

Columbia University	Invited graduate orientation speaker	2015
Columbia University	E3B Student Representative	2014–2015
Columbia University	Science Saturday Starters	2014

ACADEMIC SERVICE AND REVIEWS

Bulletin of the SSB	Peer review (1 manuscript)	2021
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Systematic Biology	Peer review (2 manuscripts)	2021–2022
Society of Systematic Biology	Grad Student Award Reviewer	2020
Evolutionary Applications	Peer review (1 manuscript)	2020
Graduate Women in Science	National Fellowship Reviewer	2019
Ecology and Evolution	Peer review (3 manuscripts)	2019–2021
Molecular Ecology	Peer review (4 manuscripts)	2018–2021

INVITED AND DEPARTMENTAL TALKS

Postdoctoral Training

Provost, Kaiya. *Using machine learning to understand evolution in bird communities.* Talk presented at: EEOB Departmental Seminar, The Ohio State University: August 26 2021.

Ph.D. Training

Provost, Kaiya. *Population genomics of southwestern desert birds.* Talk presented at: American Museum of Natural History Second Year Symposium: November 30 2017.

M.A. Training

Provost, Kaiya. *Genetic and behavioral divergence among Northern Cardinal populations: Testing the permeability of a biogeographic barrier.* Talk presented at: Columbia University Department of Ecology, Evolution, and Environmental Biology MA Thesis Presentations: May 10 2016.

Provost, Kaiya. *Behavioral and molecular data suggest different mechanisms for isolation across a filter barrier.* Talk presented at: Columbia University Department of Ecology, Evolution, and Environmental Biology Seminar: Oct. 22 2015.

Provost, Kaiya. *Behavioral and molecular data suggest different mechanisms for isolation across a filter barrier.* Talk presented at: American Museum of Natural History Explorations in Ecological-Evolutionary Modeling Meeting: Sep. 24 2015.

Provost, Kaiya. *Testing the permeability of biogeographic barriers: avian diversification in the southwestern deserts.* Talk presented at: Columbia University Department of Ecology, Evolution, and Environmental Biology Seminar: Jan. 29 2015.

CERTIFICATES AND WORKSHOPS ATTENDED

SLiM Workshop, University of East Anglia (via Ben Haller, Cornell University), 15 Sep. 2019
 Machine Learning, Stanford University (via Coursera), coursera.org/verify/8KEWL7E9LEK7
 Introduction to Analysis of Biological Sounds Using Raven Pro, 15-16 Aug. 2016.

SELECTED COURSEWORK

Richard Gilder Graduate School: Machine Learning (Independent Study); Spatial Bioinformatics; Foundations of Biological Classification; Second Year Symposium; Speciation; Applied Phylogenetics; Evolution; GIS and Remote Sensing for Conservation and Evolutionary Biology; Grantsmanship, Ethics, and Communication; Systematics.

Columbia University: Algorithmic Approaches to Biological Data; Ethics in Sustainability and Development; Conservation Biology; Phylogenomics; Applied Statistical Methods; Fundamentals of Ecology and Evolution; Biogeography.

Cornell University: Deserts, Snakes, and Mentorship in the Field; Ornithology; Herpetology; Mammalogy; Chemical Ecology; Advanced and Field Ecology; Genetics and Genomics;

Human Biology and Evolution; Vertebrates; Tropical Field Ecology; Evolutionary Biology and Diversity; Ecology and the Environment; Cell and Developmental Biology.