TYLER S. IMFELD, Ph.D.

Regis University
Department of Biology
3333 Regis Blvd., Pomponio Science Center 226
Denver, CO 80221, USA

+1 (303) 964-5427 timfeld@regis.edu

PROFESSIONAL APPOINTMENTS

Regis University, Denver, CO 80221 Assistant Professor, Department of Biology

EDUCATION

2020 University of Minnesota – Twin Cities, St. Paul, MN 55108

Ph.D. in Ecology, Evolution and Behavior Graduate Advisor: F. Keith Barker Dissertation Committee: Sharon Jansa, Sushma Reddy, and Kieran McNulty

2013 Xavier University, Cincinnati, OH 45027

Department of Biology B.S. Biology Major – University Scholars Program Environmental Studies and German Minors

TEACHING EXPERIENCE

Regis University, Denver, CO Organismic Biology Lab

Laboratory- and field-based lab course introducing students to experimental design, data collection, and scientific writing

Environmental Biostatistics & Research Design

Applied statistics course introducing Masters students to principles of research design and many statistical tools used for scientific studies in the R programming language

Advanced Field Ecology Lab

Field-based course engaging Masters students with collaborative research project with Denver Mountain Parks; sampling and study methods for different organisms

Graduate Teaching Assistantships

University of Minnesota - Twin Cities, St. Paul, MN

Introduction to Ornithology – Spring 2016, Spring 2018, Spring 2019

Redeveloped lab sessions to include group-based study and active learning; collections-based systematics of modern birds; field identification and research; mist-netting and banding

Quantitative Methods of Biological Anthropology – Fall 2018

Redeveloped entire lab curriculum as authentic learning experience for upperlevel undergraduate students; graduate-level R-based lab applying multivariate statistics, ordination analyses, and geometric morphometrics to research projects

Mammalogy – Fall 2017

Collections-based systematics of modern mammals; track-plating and small mammal surveys; citizen science projects on Zooniverse

Evolution – Fall 2016

Molecular, specimen, and computer-based labs to investigate major principles of evolution; phylogeny estimation; discussion and role-playing debate covering contemporary issues

Foundations of Biology Research Lab – Fall 2014

Introduction to general lab techniques; interpreting and producing scientific writing; independent research design

Xavier University, Cincinnati, OH

Tropical Biodiversity in Costa Rica – Winter 2017-2018, Winter 2018-2019 Introduction to field identification, field research techniques, and principles of ecology, conservation, and evolution in Costa Rica

PROFESSIONAL TRAINING & WORKSHOPS

2020 Broadening Representation & Equity with Science (BREWS) Seminar Series

Department of Ecology, Evolution and Behavior, University of Minnesota

Participated in monthly seminar series for data-driven discussions of diversity, inclusivity, and representation in STEM; 2018 – 2020

2018 Preparing Future Faculty

University of Minnesota – Twin Cities

Semester-long course to develop teaching philosophies, explore active learning techniques and technologies, and external practicum at local universities

2018 Assigning and Assessing Student Writing

University of Minnesota Center for Writing

Workshopped strategies to assign and assess student writing as a way of achieving learning goals and outcomes

2016 Integrating Natural History Collections into Undergraduate Education; Issues in Collections Management and Museum Science

6th Annual North American Ornithology Conference, Washington, DC Day-long roundtable and workshop to showcase programs incorporating hands-on collections-based learning in education and challenges of collection curation Next-Generation Phenomics: Tools for the Tree of Life
 University of Southern Maine, Portland, ME
 Utilize and collect phenotypic data using citizen science, computer learning, and open-source project platforms

PUBLICATIONS

- **Imfeld T.S.**, Barker F.K., and Brumfield R.T. Mitochondrial genomes and thousands of ultraconserved elements resolve the taxonomy and historical biogeography of the *Euphonia* and *Chlorophonia* finches (Passeriformes: Fringillidae). 2020. *The Auk*. doi: 10.1093/auk/ukaa016.
- Mejías M.A., Roncal J., **Imfeld T.S.**, Boisen S., and Wilson D.R. Relationships of song structure to phylogenetic history, habitat, and morphology in the vireos, greenlets, and allies (Passeriformes: Vireonidae). Accepted. *Evolution*.
- **Imfeld T.S.** and Barker F.K. Diversification and morphological evolution are correlated and strikingly uniform across American songbirds (Passeriformes: Passeri). In Review. *Evolution*.

PROFESSIONAL TALKS & INVITED SEMINARS

- **Imfeld T.S.** (2019) How can ecology help to provide solutions to environmental problems?: Bridging ecology, evolution, and conservation with avian biodiversity. Seminar presented in the Department of Biology, Regis University, Denver, CO.
- **Imfeld T.S.** and Barker F.K. (2019). Species diversification and morphological evolution are not uniform among continental lineages of songbirds. Paper presented at Evolution 2019 (SSE, SSB, ASN), Providence, RI.
- **Imfeld T.S.** (2018) Morphological evolution and adaptive speciation of the New World oscine avifauna. Seminar presented in the Department of Biology, Regis University, Denver, CO.
- **Imfeld T.S.** and Barker F.K. (2018) *Non-uniform diversification dynamics of the New World oscine avifauna*. Paper presented at the 27th International Ornithological Congress, Vancouver, BC, Canada.
- **Imfeld T.S.** (2018) *Morphological evolution and species diversification at hemispheric scales*. Seminar presented in the Department of Biology, Xavier University, Cincinnati, OH.
- **Imfeld T.S.** (2017) *Morphological evolution and species diversification at hemispheric scales.* Seminar presented at the Field Museum of Natural History, Chicago, IL.

CONFERENCE POSTERS

- **Imfeld T.S.** and Barker F.K. (2016) *The relationship between species diversification and morphological evolution in New World oscines*. Poster presented at the 6th North American Ornithology Conference, Washington, DC.
- **Imfeld, T.S.** and Barker F.K. (2016) *The relationship between species diversification and morphological evolution in New World oscines*. Poster presented at Evolution 2016 (SSE, SSB, ASN), Austin, TX.
- **Imfeld T.S.** and Barker F.K. (2015) *Phenotypic evolution in New World oscine songbirds*. Poster presented at the American Ornithologists' Union, Norman, OK.
- **Imfeld T.S.**, Chaput D., and Santelli C. (2013) *The effect of nutrients on the growth and manganese oxidation of fungi and bacteria*. Poster presented at the Ecological Society of America, Minneapolis, MN.

GRANTS AND FELLOWSHIPS

- 2020 Ecology, Evolution and Behavior Graduate Summer Fellowship (\$5,200)
- 2019 Simons Foundation Fellowship in Systematic Biology, Bell Museum "Can adaptive radiation explain the macroevolution of global biodiversity?" (\$20,400)
- 2019 Avian Conservation Fund Grant, Bell Museum (\$5,000)
- 2019 Ecology, Evolution and Behavior Graduate Summer Fellowship (\$6,800)
- 2019 Ecology, Evolution and Behavior Travel Award (\$900) Funding to attend Evolution 2019 in Providence, RI
- 2018 Ecology, Evolution and Behavior Graduate Summer Fellowship (\$6,700)
- 2018 Ecology, Evolution and Behavior Travel Award (\$900)

 Funding to attend the 27th International Ornithological Congress, Vancouver, BC,
 Canada
- 2017 Richard & Judie Huempfner Avian Research Fund Grant, Bell Museum "Molecular systematics and comparative study of the bizarre true finch genera *Euphonia* and *Chlorophonia* (Fringillidae)" (\$2,500)
- 2017 Frank Chapman Memorial Fund Grant, American Museum of Natural History "Molecular systematics and comparative study of the bizarre true finch genera *Euphonia* and *Chlorophonia* (Fringillidae)" (\$2,000)
- 2016 Wallace and Mary Lee Dayton Fellowship, Bell Museum (\$25,000)

- 2016 Joyce Davenport Summer Fellowship, Bell Museum (\$5,800)
- 2016 Collection Study Grant, American Museum of Natural History "Relationship of species diversification to morphological evolution and its role in patterns of global diversity" (\$1,300)
- 2016 Richard & Judie Huempfner Ruffed Grouse Grant, Bell Museum "Relationship of species diversification to morphological evolution and its role in patterns of global diversity" (\$1,500)
- 2016 Ecology, Evolution and Behavior Travel Award (\$860) Funding to attend Evolution 2016 in Austin, TX
- 2015 Florence Rothman Grant, University of Minnesota College of Biological Sciences "Relationship of morphological evolution to species diversification in the largest radiation of New World birds (Passeriformes: Emberizoidea) (\$1,200)
- 2015 Ecology, Evolution and Behavior Travel Award (\$850) Funding to attend the American Ornithologists' Union meeting in Norman, OK
- 2014 AmeriCorps Segal Education Award (\$5,500)

PROFESSIONAL SERVICE

- 2020 Ecography Journal Peer Reviewer
- 2020 Sexual Harassment Complaint Liaison

Point person for reporting and communicating sexual harassment claims from the EEB Graduate Program to the department and university

- 2018 EEB Graduate Program Coordinator Search Committee
 Graduate student member of search committee to hire Graduate Program Coordinator
 for Department of Ecology, Evolution and Behavior
- 2017 Breckenridge Chair of Ornithology Search Committee
 Graduate student member of search committee to hire assistant faculty in Department
 of Fisheries, Wildlife, and Conservation Biology and endowed Curator of
 Ornithology at Bell Museum
- 2017 EEB Department Faculty Meeting Liaison
 Graduate student liaison for monthly meetings with EEB faculty
- 2015 College of Biological Sciences Leadership Council Graduate student liaison for monthly meetings with department heads and deans of College of Biological Sciences

2014 Ecology, Evolution and Behavior Fundraising Committee

Design and sale of student-designed merchandise for departmental travel funding

OUTREACH AND PUBLIC ENGAGEMENT

2020 Ornithology Collection Tours

Bell Museum, St. Paul, MN

2014-2020; Lead tours highlighting use of collections for research and outreach to students of Twin Cities universities, high schools, and NGOs

2020 Diorama Interpretation Tours (canceled due to COVID-19 pandemic)

Bell Museum, St. Paul, MN

Would have led public tour drawing connections between exhibit displays and active ornithological research at the University of Minnesota and Bell Museum

2019 MN Convservation Corps Youth Outdoors – College and Career Day

Bell Museum, St. Paul, MN

November 2016, April 2017, April and November 2018, November 2019; gave tours of Bell Museum collections and discussed science degrees and careers with high school students from underrepresented communities

2019 Jackson Middle School EcoExtravaganza

Cedar Creek Ecosystem Science Reserve, Bethel, MN

May 2015-2019; advised 8th grade students to formulate research questions and hypotheses, collect morphometric data from mist netted birds, analyze data as a way to test hypotheses, and present research findings in a lightning talk session

2019 Junior Scientist Camp

Bell Museum, St. Paul, MN

July-Sep 2018, July 2019; hands-on demonstration of studying wild birds with mist nets and using natural history collections with students ages preK-6th grade

2018 Halloween: The Dead Zoo

Bell Museum, St. Paul, MN

Held public demonstration of owl specimen dissection for skeletal preparations, and explained importance of skeletal and tissue collections to museum visitors

2018 Saturday with a Scientist: Pollinators

Bell Museum, St. Paul, MN

Hosted game to showcase coevolution of flower and hummingbird bill morphology and the convergent evolution of nectar feeding across avian diversity

2018 Grand Opening Science Sunday

Bell Museum, St. Paul, MN

Designed and facilitated hands-on lab activity for museum visitors to measure spread-wing specimens and compare wing shape to flight behavior and physics

2018 Science and Social Studies Adventures (SASSA)

Maple Grove Middle School, Maple Grove, MN

Spring 2017 & 2018; guided 6-8th grade students at Maple Grove Middle School to make predictions, design experiments, and draw conclusions about geological and evolutionary processes in the lab

2017 Science and Social Studies Adventures Critter Corner Blog

Twin Cities Metro Area, MN

Wrote blog posts catered to middle school students about the ecology, Evolution and Behavior of organisms with unique morphological adaptations

2016 Saturday with a Scientist: Migration

Bell Museum, St. Paul, MN

Showcased and explained conservation efforts and citizen science to study animal migration in Minnesota and worldwide

2015 Fulton County, OH 4-H Camp: "You Can like a Toucan"

Camp Palmer, Fayette, OH

Facilitated game to teach campers ages 8-14 how different bird bills are adapted to forage for different kinds of food

2014 Ridgecrest Wildflower Festival Bureau of Land Management Public Exhibit

Ridgecrest, CA

Set up exhibit to showcase diversity and conservation of wildlife on BLM land; discussed importance of conservation biology with visitors

2013 Congressional Night at the Smithsonian

National Museum of Natural History, Washington, DC

Explained interdisciplinary bioremediation research in Department of Mineral Sciences to congressional staff and their families

CURATORIAL EXPERIENCE

Bell Museum, St. Paul, MN

Genetic Resources Collection, Curatorial Assistant – Summer 2015, Fall 2018 Processing, shipping, and receiving of tissue specimen loans; specimen accessioning

Ornithology Collection, Specimen Preparation – Spring 2018

Weekly undergraduate mentoring to prepare tissue and skeletal specimens

Ornithology Collection, Field Assistant – Summer 2015

Vocalization recording and collecting assistance for Marsh Wrens (*Cistothorous palustris*) in Montana

Cincinnati Museum Center, Cincinnati, OH

Geier Research & Collection Center, Database Volunteer – Spring 2013 Reviewed and updated taxonomic data for 25,000 ornithology specimens

ACADEMIC MEMBERSHIPS

Curr. Society for the Study of Evolution (SSE)
American Ornithological Society (AOS)
Society of Systematic Biologists (SSB)
AAAS / Science Program for Excellence in Science

2016 American Ornithologists' Union

PREVIOUS EMPLOYMENT

2014 Humboldt Redwoods State Park Trail Crew
 California State Parks, Weott, CA
 2014 Student Conservation Association Desert Restoration Corps

Bureau of Land Management, Ridgecrest, CA

2013 Geomicrobiology Research Assistant

National Museum of Natural History, Dept. of Mineral Sciences, Washington, DC

2011 Invasive Plant Ecology Research Assistant

Xavier University, Department of Biology, Cincinnati, OH

2010 Aviculture and Horticulture Intern

Cincinnati Zoo and Botanical Gardens, Cincinnati, OH

PROFESSIONAL REFERENCES

F. Keith Barker Sharon Jansa George Farnsworth
University of Minnesota University of Minnesota Department of EEB

+1 (612) 624-2737 +1 (612) 624-6293 +1 (513) 745-2062

barke042@umn.edu jansa003@umn.edu farnsworth@xavier.edu