

Connor French

PHD CANDIDATE

Montclair, NJ

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Education

City University of New York

PHD CANDIDATE, BIOLOGY- ECOLOGY, EVOLUTION, AND BEHAVIOR

New York, New York

2018 - 2024

Southern Illinois University

M.S., ZOOLOGY

Carbondale, Illinois

2016 - 2018

University of Texas

B.S., BIOLOGY- ECOLOGY, EVOLUTION, AND BEHAVIOR

Austin, Texas

2011 - 2015

Professional experience

Graduate Research Assistant

MICHAEL J. HICKERSON LAB

City University of New York

2018 - 2024

- Investigating evolutionary responses to environmental change across spatial scales.
- All positions from 2019-current are assistantships or fellowships that supported my graduate stipend.

Software Developer

ANDREW ROMINGER

University of Maine

2022 - 2023

- Developed an R Shiny web application to simulate community assembly using the Rules of Life Engine model. It is meant to facilitate education and research.

Assistant Project Manager

INSIGHTS FROM MACRO-ECOLOGY AND MACRO-EVOLUTION FOR BIODIVERSITY ASSESSMENT

University of California- Berkeley

2023 - 2023

- Co-organized meetings and progress monitoring for 10 research projects following an NSF-funded workshop on bridging biodiversity disciplines
- Coordinated data deposition and access across projects
- Contributed to a white paper and multiple project manuscripts that stemmed from the workshop

Digital Fellow

GRADUATE CENTER

City University of New York

2019 - 2021

- Consulted on technical projects across disciplines.
- Delivered workshops to multi-disciplinary audiences on topics like R, Python, GIS, reproducible analysis, text analysis, data visualization, and data wrangling.
- Formed the CUNY R User Group and held monthly meetings.

Graduate Research Assistant

JASON L. BROWN LAB

Southern Illinois University

2016 - 2018

- Completed thesis work on the evolution of Andean poison frogs.

Research Assistant

TEXAS BIODIVERSITY COLLECTIONS

University of Texas

2016 - 2016

- Herpetology Division
- Supported data collection and collections management for conservation efforts.

Undergraduate Researcher

DANIEL I. BOLNICK LAB

University of Texas

2013 - 2014

- Completed an independent project through the National Science Foundation Research Experience for Undergraduates. Experimental design, field work in British Columbia, lab work, data analysis, and first-author publication.

Undergraduate Researcher

DAVID CANNATELLA LAB

University of Texas

2013 - 2014

- Field work in support of frog acoustic research.

Field Technician

TOUCAN RIDGE ECOLOGY AND EDUCATION SOCIETY

- Designed and executed field protocols for monitoring amphibian populations.

Middlesex, Belize

2014

Collections Assistant

TEXAS BIODIVERSITY COLLECTIONS

- Ichthyology Division
- Collected and analyzed fish morphometric data for taxonomic research and digitized research collections.

University of Texas

2014

Preprints

Publications

Global determinants of insect mitochondrial genetic diversity (2023)

NATURE COMMUNICATIONS. 14:5276.

- *French, C.M.*, Bertola, L.D., Carnaval, A.C., Economo, E.P., Kass, J.M., Lohman, D.J., Marske, K.A., Meier, R., Overcast, I., Rominger, A.J., Staniczenko, P., Hickerson, M.J.

Forest cover and geographical distance influence fine-scale genetic structure of leaf-toed geckos in the tropical dry forests of western Mexico (2022)

BIOLOGICAL JOURNAL OF THE LINNEAN SOCIETY. 137(4), PP. 686-699

- *French, C.M.*, Berezin, C.T., Overcast, I., De La Cruz, F.R.M., Basu, S., Bernal, R.L.M., Murphy, R.W., Hickerson, M.J., Blair, C.

Phylogenetic relationships and systematics of the Amazonian poison frog genus *Ameerega* using ultraconserved genomic elements (2020)

MOLECULAR PHYLOGENETICS AND EVOLUTION. 142, 106638.

- Wilson, G.X., *French, C.M.*, Twomey, E.M., Chávez, G., Prates, I., von May, R., la Riva, I.D., Lötters, S., Reichle, S., Serrano-Rojas, S.J., Whitworth, A., Brown, J.L.

Morphological correlates of invasion in Florida cane toad (*Rhinella marina*) populations: Shortening of legs and reduction in leg asymmetry as populations become established (2020)

ACTA OECOLOGICA. 109, 103652

- Rubio, A.O., *French, C.M.*, Catenazzi, A.

Speciation with introgression: Phylogeography and systematics of the *Ameerega petersi* group (Dendrobatidae). (2019)

MOLECULAR PHYLOGENETICS AND EVOLUTION. 138, 31-42.

- *French, C.M.*, Deutsch, M.S., Chávez, G., Almora, C.E., Brown, J.L.

The tadpole of *Ameerega boehmei* in southeastern Bolivia (2019)

ZOOTAXA. 4661, 1.

- *French, C.M.*, Burkette, C., Reichle, S., and Brown, J.L.

Geographical variation in colour of female threespine stickleback (*Gasterosteus aculeatus*). (2018)

PEERJ. 6:E4807.

- *French, C.M.*, Ingram, T., Bolnick, D.I.

Rana juliani. Vocalization. (2017)

MESOAMERICAN HERPETOLOGY. 4(1). PP. 170.

- *French, C.M.*, Kilborn, V., Jäger, K.L.

Diadophis punctatus regalis (Regal Ringneck Snake). DIET. (2017)

HERPETOLOGICAL REVIEW. 48(2). PP. 448.

- *French, C.M.*

SDMtoolbox 2.0: the next generation python-based GIS toolkit for landscape genetic, biogeographic and species distribution model analyses. (2017)

PEERJ. 5:E4095.

- Brown, J.L., Bennett, J., *French, C.M.*

Presentations and Posters

Pairing species distribution models with spatially explicit coalescent simulations to understand demographic responses to past climate change

EVOLUTION

2023

- *French, C.M.*, Hickerson, M.J., Carnaval, A.C.
- Oral presentation

Estimating spatial demographic patterns in a dynamic environment with ecological niche models and genome-wide data

ECOLOGICAL AND EVOLUTIONARY GENOMICS GORDON CONFERENCE

2023

- *French, C.M.*, Hickerson, M.J., Carnaval, A.C.
- Poster presentation

The response of an Atlantic Forest leaf frog to anthropogenic climate change

STUDENT CONFERENCE ON CONSERVATION SCIENCE

2023

- Flores, L.C., *French, C.M.*
- Poster presentation
- Liliana Flores is my undergraduate mentee who presented the poster

Estimating spatial demographic patterns in a dynamic environment with species distribution models and genome-wide data

EVOLUTION

2022

- *French, C.M.*, Hickerson, M.J., Carnaval, A.C.
- Oral presentation
- Presidential symposium: Species distributions and coexistence: the intersection of evolution and ecology.

Determinants of the global distribution of genetic diversity in terrestrial insects

NEW YORK SPECIES DISTRIBUTION MODELING DISCUSSION GROUP

2021

- *French, C.M.*
- Invited presentation

Comparative phylogeography of the Brazilian Atlantic Forest leaf litter lizards (genus *Enyalius*)

WORLD CONGRESS OF HERPETOLOGY

2020

- *French, C.M.*, Damasceno, R., Rodrigues, M., Carnaval, A.C., Hickerson, M.J.
- Oral presentation

Using genetics to understand species responses to climate change

NEW YORK CITY COLLEGE OF TECHNOLOGY- SYSTEMATICS UNDERGRADUATE COURSE

2020

- *French, C.M.*
- Invited presentation

A dynamic history in the Tropical Andes: phylogeography and systematics of the *Ameerega petersi* group (Dendrobatidae)

EVOLUTION

2019

- *French, C.M.*, and Brown, J.L.
- Oral presentation

Predicting global insect genetic diversity

EVOLUTION

2019

- *French, C.M.*, Bertola, L., Hickerson, M.J.
- Poster presentation

Climate-driven diversification in a clade of Peruvian poison frogs

EVOLUTION

2017

- *French, C.M.*, Brown, J.L.
- Oral presentation

Climate fluctuation as a driver of diversification in a clade of Peruvian poison frogs

JOINT MEETING OF ICHTHYOLOGISTS AND HERPETOLOGISTS

2017

- *French, C.M.*, Brown, J.L.
- Oral presentation

Morphological divergence among multiple *Notropis oxyrhynchus* populations

AMERICAN FISHERIES SOCIETY

2015

- *French, C.M.*
- Poster presentation

Morphological assessment of hybridization between two ranid species, *Lithobates juliani* and *L. vaillanti*

SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES

2015

- *French, C.M.*
- Oral presentation

Peer Review

Journal of Biogeography, Biotropica, Environmental Biology of Fishes, Molecular Ecology, Global Ecology and Biogeography

Teaching

Data, Science, Scientists

New York, NY

CCNY BIOLOGY DEPARTMENT

2024

- TA, BIO 100006
- Developed curriculum for labs, introducing students to research methods, the scientific process, and data analysis in Microsoft Excel

Multi-dimensional Biodiversity Data

Albuquerque, NM

EVOLUTION MEETING

2023

- Curriculum developer and instructor. Two-day workshop to introduce different data types used by biodiversity scientists in an integrative framework.
- Participants were an international group of evolutionary biologists, from graduate students to faculty.
- I led the population genetics segment and contributed to the others.

Ecology and Evolution

New York, NY

CCNY BIOLOGY DEPARTMENT

2022

- TA, BIO 228
- Led and prepared labs.

Reproducible Research

New York, NY

CITY COLLEGE OF NEW YORK

2022

- Co-organizer and panelist. 1.5 hour panel on techniques for reproducible research.
- Hosted for members of the Ecology, Evolution, and Behavior PhD program.

R for Reproducible Scientific Analysis

New York, NY

COLUMBIA UNIVERSITY

2021

- Invited workshop.
- Half-day online workshop as part of the Pre-Statistics Course Bootcamp.
- Facilitated by Software Carpentries.

Introduction to Text Analysis in R

New York, NY

CUNY GRADUATE CENTER

2021

- 1.5 hour online workshop for CUNY Graduate Center faculty and students.
- Hosted on rstudio.cloud
- Given as part of the GC Digital Fellows.

Digital Research Institute CUNY GRADUATE CENTER <ul style="list-style-type: none"> • Five day series of workshops introducing CUNY faculty and students to digital tools for research. • Two sessions- one in January 2020 and one in February 2021. • Led the R track. 	New York, NY 2020 - 2021
Digital Humanities Research Institute CUNY GRADUATE CENTER/ONLINE <ul style="list-style-type: none"> • Led a workshop on Git and Github for a national cohort of students and faculty. 	New York, NY 2021
Reproducible Data Analysis in R CUNY GRADUATE CENTER <ul style="list-style-type: none"> • 2.5 hour workshop on using RMarkdown and github for reproducible data analysis. • Hosted within the workr R package as an interactive tutorial. • Given as part of the GC Digital Fellows 	New York, NY 2020
Data Visualization in R CUNY GRADUATE CENTER <ul style="list-style-type: none"> • 2.5 hour workshop on using ggplot2 for data visualization. • Hosted within the workr R package as an interactive tutorial. • Given as part of the GC Digital Fellows 	New York, NY 2020
Exploring population structure in R with adegenet and sNMF CITY UNIVERSITY OF NEW YORK <ul style="list-style-type: none"> • 1.5 hour online workshop given to an international group of evolutionary biology faculty and graduate students as part of the four day Bioinformatics Bootcamp for Ecology and Evolution. 	Global/Online 2020
Introduction to R and RStudio CUNY GRADUATE CENTER <ul style="list-style-type: none"> • Two hour online workshop for CUNY Graduate Center faculty and students. • Given as part of the GC Digital Fellows. 	New York, NY 2020
Introduction to population structure inference in R SIUC ZOOLOGY DEPARTMENT <ul style="list-style-type: none"> • Invited workshop. • Two hour workshop for Zoology graduate and undergraduate students. 	Carbondale, IL 2019
Introductory R and RStudio CUNY GRADUATE CENTER <ul style="list-style-type: none"> • Invited workshop. • 1.5 hour workshop for graduate students in the Quantitative Zoogeography graduate course. 	New York, NY 2019
Bioinformatic processing of ultraconserved elements for phylogenetic analysis SIUC ZOOLOGY DEPARTMENT <ul style="list-style-type: none"> • Two hour workshop to introduce graduate students to a bioinformatic pipeline. 	Carbondale, IL 2019
Data Wrangling in R CUNY GRADUATE CENTER <ul style="list-style-type: none"> • 2.5 hour workshop on using the tidyverse for data manipulation. • Hosted within the workr R package as an interactive tutorial. • Given as part of the GC Digital Fellows 	New York, NY 2019
BioSkills SIUC BIOLOGY DEPARTMENT <ul style="list-style-type: none"> • TA, BIO 212 • Co-developed material for new writing and discussion-based course section. • Concurrently ran ecology and developmental biology sections. 	Carbondale, IL 2017 - 2018
Introduction to Evolution and Ecology Lab SIUC BIOLOGY DEPARTMENT <ul style="list-style-type: none"> • TA, BIO 212 • Led and prepared labs. 	Carbondale, IL 2017

Vertebrate Anatomy Lab

SIUC ZOOLOGY DEPARTMENT

- TA, ZOOL 418
- Led and prepared labs.
- Advised undergraduate lab assistant.

Carbondale, IL

2017

Reptile and amphibian survey and capture techniques

SIUC ZOOLOGY DEPARTMENT

- Invited lecture, Curation of Collections (PLB 401).
- One hour lecture on best practices for herpetological surveys.

Carbondale, IL

2017

Appropriate techniques for identifying and handling reptiles and amphibians in the field.

SIUC ZOOLOGY DEPARTMENT

- Invited lecture, SIUC Wildlife Techniques (ZOOL 469).
- One hour lecture and field demonstration on best practices for herpetological surveys.

Carbondale, IL

2017

Introductory Biology for Non-Majors Lab

SIUC ZOOLOGY DEPARTMENT

- TA, ZOOL 115
- Led and prepared labs.

Carbondale, IL

2016

Instructor

CAMP EINSTEIN AFTERSCHOOL STEM PROGRAM

- Summer afterschool program for early elementary school students.

Austin, TX

2016

Biostatistics

UT BIOLOGY DEPARTMENT

- Undergraduate TA
- Assisted graduate TA with leading and grading R programming labs, and facilitating course discussion.

Austin, TX

2014 - 2015

Awards and Honors

Doctoral Student Research Grant

CITY UNIVERSITY OF NEW YORK

- \$1450

2023

Graduate Center Digital Fellowship

CITY UNIVERSITY OF NEW YORK

- \$56250
- \$28,125/year

2019 - 2021

Helen and Frederick Gaike Fund

AMERICAN SOCIETY OF ICHTHYOLOGY AND HERPETOLOGY

- \$900

2020

Provost's Pre-Dissertation Research Fellowship for the Sciences

CITY UNIVERSITY OF NEW YORK

- \$5000

2020

Student Scholarship

WORLD CONGRESS OF HERPETOLOGY

- \$940

2020

Graduate Research Excellence Grant RC Lewontin Early Award

SOCIETY FOR THE STUDY OF EVOLUTION

- \$2300

2019

Charles & Florence Foote Teaching Award in Zoology

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

- \$750

2018

Biodiversity Under Environmental Change Seed Grant

CITY COLLEGE OF NEW YORK

2018

- \$2500

Digital Initiatives Training Grant

CITY UNIVERSITY OF NEW YORK

2018

- \$500

Zoology Graduate Student Association Travel Award

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

2017

- \$100

Cooperative Wildlife Research Lab Featured Graduate Student

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

2017

Undergraduate Research Fellowship

UNIVERSITY OF TEXAS AT AUSTIN

2015

- \$1000

University Honors

UNIVERSITY OF TEXAS AT AUSTIN

2014

General Education Scholarship

UNIVERSITY OF NORTH TEXAS

2011 - 2012

- \$6000

Dean's List

UNIVERSITY OF NORTH TEXAS

2012

Outreach

Predicting global insect diversity

City College of New York

SCIENCE DAY

2019

- Invited oral presentation

Peru: where plan C comes first

SIU Carbondale

HERPETOLOGY CLUB

2017

- Oral presentation

There and back again: divergence and convergence in poison frogs

SIU Carbondale

DARWIN WEEK

2017

- Invited oral presentation

Sightseers slither into southern Illinois for Snake Road

DAILY EGYPTIAN

2017

- Interview

Frog diversity and evolution

KEALING MIDDLE SCHOOL MAGNET PROGRAM ZOOLOGY CLUB

2016

- Invited lecture

Frogs: weird wonders of the natural world

LAMAR FINE ARTS ACADEMY MIDDLE SCHOOL

2016

- Invited lecture

Professional Development

Deep Learning in Pytorch Crash Course

New York, NY

NYC DATA SCIENCE ACADEMY

2023

- Workshop

The Carpentries Collaborative Lesson Development Training program

SOFTWARE CARPENTRIES

- Certified as a Software Carpentries Lesson Developer

Remote

2023

Insights from Macro-Ecology and Macro-Evolution for Biodiversity Assessment

SCHOODIC INSTITUTE, MAINE

- Workshop

2022

Applied Machine Learning

R STUDIO CONFERENCE

- Workshop

Austin, TX

2019

Machine Learning for Scientists

CITY UNIVERSITY OF NEW YORK

- Course

2019

The Fundamentals of UX Research

CITY UNIVERSITY OF NEW YORK

- Workshop

2019

Genome Assembly and Annotation

AMERICAN MUSEUM OF NATURAL HISTORY

- Workshop

2019

SLiM 5-day workshop

CUNY BIOLOGY DEPARTMENT

- Co-organized five full-day workshop on SLiM population genetic simulation program

New York, NY

2019

Analysis of Rad-Sequence Data (RadCamp)

INSTITUTO DE BIOCIÊNCIAS

- Workshop

Universidade de São Paulo

2018

Biostatistics

CITY UNIVERSITY OF NEW YORK

- Course

2018

Introduction to GIS

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

- Course

2017

Quantitative Zoogeography

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

- Course

2017

Intermediate Computational Statistics

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

- Course

2016

Biostatistics

UNIVERSITY OF TEXAS AT AUSTIN

- Course

2014

Intro to NGS Bioinformatics

UNIVERSITY OF TEXAS AT AUSTIN

- Workshop

2013

Mentorship

Liliana C. Flores

CITY COLLEGE OF NEW YORK

- Conducted independent research project on modeling the distribution of a Brazilian leaf frog species
- Poster presentation of work at the Student Conference on Conservation Science

2022 - 2023

Undergraduate Diversity at Evolution

EVOLUTION MEETING

2019

- Mentored two undergraduates attending their first conference

Krista Jäger

DALHOUSIE UNIVERSITY

2016 - 2017

- Assisted honors thesis investigating ranid frog population genetics
- Co-authored natural history note on *Rana juliani* vocalization

Michael Deutsche

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE

2017

- Undergraduate assistant, learning lab techniques and experimental design in anuran morphometrics
- Senior project on poison frog call variation
- Co-authored resulting publication

Writing

Sonification for Data Communication

New York, NY

BLOG POST

2021

- Post introducing the concept of sonification, its uses, and its benefits.

RStudio Cloud for Education

New York, NY

BLOG POST

2020

- Post outlining the advantages of using the RStudio Cloud system for teaching.

Funding sources for undergraduate research in ecology and evolution

New York, NY

BLOG POST

2020

- Post highlighting funding resources for undergraduate research

PDIG Training Grant Spotlight: Connor French

New York, NY

BLOG POST

2019

- Overview of a project I used the Provost’s Digital Innovation Grant to prepare for.

Interactively explore geographic data in R using leaflet

New York, NY

BLOG POST

2019

- Walk through of creating an interactive map in R.

Technical Skills

Frameworks	Software
R, Python, SQL, QGIS, ArcGIS, Unix shell, Microsoft Office, High-Performance Computing	Git, tidyverse, tidymodels, Quarto, Shiny, msprime, sklearn, SLiM, conda, snakemake, common bioinformatics tools

Affiliations

Society for the Study of Evolution (2017 - 2024)

American Genetics Association (2022 - 2024)