Connor **French**

PhD Candidate

Montclair, NJ

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Education

City University of New York   *New York, New York*

PhD Candidate, Biology- Ecology, Evolution, and Behavior   *2018 - 2023*

Southern Illinois University   *Carbondale, Illinois*

M.S., Zoology   *2016 - 2018*

University of Texas   *Austin, Texas*

B.S., Biology- Ecology, Evolution, and Behavior   *2011 - 2015*

Professional experience

Graduate Research Assistant   *City University of New York*

Michael J. Hickerson Lab   *2018 - 2023*

- Investigating evolutionary responses to environmental change across spatial scales.

Software Developer   *University of Maine*

Andrew Rominger   *2022 - 2023*

- Developing 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   *University of California- Berkeley*

Insights from Macro-Ecology and Macro-Evolution for Biodiversity Assessment   *2023 - 2023*

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

Digital Fellow   *City University of New York*

Graduate Center   *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   *Southern Illinois University*

Jason L. Brown Lab   *2016 - 2018*

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

Research Assistant   *University of Texas*

Texas Biodiversity Collections   *2016 - 2016*

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

Undergraduate Researcher   *University of Texas*

Daniel I. Bolnick Lab   *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   *University of Texas*

David Cannatella Lab   *2013 - 2014*

- Field work in support of frog acoustic research.

Field Technician   *Middlesex, Belize*

Toucan Ridge Ecology and Education Society   *2014*

- Designed and executed field protocols for monitoring amphibian populations.

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

Preprints

Global determinants of insect genetic diversity (2022)

bioRxiv. 10.1101/2022.02.09.479762

- *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.
- Preprint. Accepted at Nature Communications, conditional on revisions.

Publications

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

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

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
New York, NY

CUNY GRADUATE CENTER
2020 - 2021

- 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.

Digital Humanities Research Institute
New York, NY

CUNY GRADUATE CENTER/ONLINE
2021

- Led a workshop on Git and Github for a national cohort of students and faculty.

Reproducible Data Analysis in R
New York, NY

CUNY GRADUATE CENTER
2020

- 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

Data Visualization in R
New York, NY

CUNY GRADUATE CENTER
2020

- 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

Exploring population structure in R with adegenet and sNMF
New York, NY

CUNY GRADUATE CENTER
2020

- 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.

Introduction to R and RStudio
New York, NY

CUNY GRADUATE CENTER
2020

- Two hour online workshop for CUNY Graduate Center faculty and students.
- Given as part of the GC Digital Fellows.

Introduction to population structure inference in R
Carbondale, IL

SIUC ZOOLOGY DEPARTMENT
2019

- Invited workshop.
- Two hour workshop for Zoology graduate and undergraduate students.

Introductory R and RStudio

CUNY GRADUATE CENTER

- 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

- Two hour workshop to introduce graduate students to a bioinformatic pipeline.

Carbondale, IL

2019

Data Wrangling in R

CUNY GRADUATE CENTER

- 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

- 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

- 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

- $1447

2023

Graduate Center Digital Fellowship

CITY UNIVERSITY OF NEW YORK *2019 - 2021*

- $56250
- $28,125/year

Helen and Frederick Gaige Fund

AMERICAN SOCIETY OF ICHTHYOLOGY AND HERPETOLOGY *2020*

- $900

Provost's Pre-Dissertation Research Fellowship for the Sciences

CITY UNIVERSITY OF NEW YORK *2020*

- $5000

Student Scholarship

WORLD CONGRESS OF HERPETOLOGY *2020*

- $940

Graduate Research Excellence Grant RC Lewontin Early Award

SOCIETY FOR THE STUDY OF EVOLUTION *2019*

- $2300

Charles & Florence Foote Teaching Award in Zoology

SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE *2018*

- $750

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

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

Schoodic Institute, Maine   *2022*

• Workshop

Applied Machine Learning   *Austin, TX*

R Studio Conference   *2019*

• Workshop

Machine Learning for Scientists

City University of New York   *2019*

• Course

The Fundamentals of UX Research

City University of New York   *2019*

• Workshop

Genome Assembly and Annotation

American Museum of Natural History   *2019*

• Workshop

SLiM 5-day workshop   *New York, NY*

CUNY Biology Department   *2019*

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

Analysis of Rad-Sequence Data (RadCamp)   *Universidade de São Paulo*

Instituto de Biociências   *2018*

• Workshop

Biostatistics

City University of New York   *2018*

• Course

Introduction to GIS

Southern Illinois University at Carbondale   *2017*

• Course

Quantitative Zoogeography

Southern Illinois University at Carbondale   *2017*

• Course

Intermediate Computational Statistics

S<small>OUTHERN</small> I<small>LLINOIS</small> U<small>NIVERSITY AT</small> C<small>ARBONDALE</small>   *2016*

- Course

Biostatistics

U<small>NIVERSITY OF</small> T<small>EXAS AT</small> A<small>USTIN</small>   *2014*

- Course

Intro to NGS Bioinformatics

U<small>NIVERSITY OF</small> T<small>EXAS AT</small> A<small>USTIN</small>   *2013*

- Workshop

Mentorship

Undergraduate Diversity at Evolution

E<small>VOLUTION</small> M<small>EETING</small>   *2019*

- Mentored two undergraduates attending their first conference

Krista Jäger

D<small>ALHOUSIE</small> U<small>NIVERSITY</small>   *2016 - 2017*

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

Michael Deutsche

S<small>OUTHERN</small> I<small>LLINOIS</small> U<small>NIVERSITY AT</small> C<small>ARBONDALE</small>   *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*

B<small>LOG POST</small>   *2021*

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

RStudio Cloud for Education   *New York, NY*

B<small>LOG POST</small>   *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*

B<small>LOG POST</small>   *2020*

- Post highlighting funding resources for undergraduate research

PDIG Training Grant Spotlight: Connor French   *New York, NY*

B<small>LOG POST</small>   *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*

B<small>LOG POST</small>   *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 - 2023)

American Genetics Association (2022 - 2023)