

# JOHN NGUYEN

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## EDUCATION

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### University of Houston, Houston, TX

*Doctor of Philosophy – Biology; Ecology and Evolution Track*  
*Advisor: Dr. Adam Stuckert*

August 2024 - Present

### Columbia University (Columbia College), New York, NY

*Bachelor of Arts - Environmental Biology, GPA: 3.90 (Dean's List x6)*

May 2023

**Research Interests:** Evolutionary biology, sensory ecology, herpetology, animal coloration

## RESEARCH EXPERIENCE

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### Smithsonian Tropical Research Institute

*NSF RaMP Fellow and Global Sustainability Scholar*  
*Advisors: Drs. Owen McMillan, Christian Cox, Michael Logan*

### Gamboa, Panamá

October 2023 – October 2024

- Fostered an inclusive, interdisciplinary, and empathetic science culture while conducting research in the tropics. Led an independent project to investigate the ecological correlates, genetics, and maintenance of a female-limited polymorphism in slender anoles (*Anolis apletophallus*) and collaborated with international researchers. Designed and curated digital assets for the Gamboa Heliconius Lab.

### University of North Carolina at Asheville, Dept of Biology

*Herpetology Field Technician*  
*Advisor: Dr. Becca Hale*

### Asheville, NC

July 2023 – October 2023

- Conducted bi-weekly coverboard field surveys independently at Sandy Bottom Wetland Preserve, a critically threatened montane floodplain slough forest in western North Carolina with a unique herpetofauna assemblage. Documented temporal changes in herpetofauna community composition to inform local conservation management and policies. Developed off-road navigation and herpetological photography skills.

### California Academy of Sciences, Dept of Herpetology

*Undergraduate Student Researcher*  
*Advisor: Dr. Rayna Bell*

### San Francisco, CA

June 2022 – September 2022

- Determined the historical prevalence of the panzootic chytrid fungus (*Batrachochytrium dendrobatidis*) in amphibian populations in West Africa by swabbing 3,300 specimens to provide a greater context for disease dynamics in Africa. Developed a species distribution model of chytrid in Africa using Maxent, R, and QGIS. Cultivated skills in writing research grants and research proposals.

### NSF-REU Intern - Summer Systematics Institute

June 2021 – August 2021

- Assessed the diversity and distribution of reed frogs on Bioko Island in the Gulf of Guinea archipelago to gain an understanding of species and genetic composition. Investigated how population divergence from continental Africa is shaping the diversification of this genus of frogs on the island. Revised incorrect species identifications for fluid specimens spanning several decades of field studies. Performed bioinformatics analysis of DNA sequences using BLAST and Geneious. Published a first-author manuscript.

### Mpala Research Centre

*Tropical Biology Field Semester Abroad Student*  
*Advisors: Drs. Dustin Rubenstein, Kevin Uno, Julien Ayroles, and Robert Pringle*

### Nanyuki, Kenya

January 2022 – April 2022

- Collaborated with fellow students and scientists on 10 independent research projects on savanna ecology, paleoecology, biology, and conservation. Conducted field data collection in remote and hazardous conditions that required adaptability, teamwork, and quick problem-solving skills; specific locations include Laikipia County, Turkana Basin, Tsavo West, Amboseli, Chyulu Hills, and Mt. Kenya.

### Cary Institute of Ecosystem Studies

*Undergraduate Student Researcher*

### Millbrook, NY

September 2020 – September 2022

*Advisors: Drs. Sarah Batterman, Michelle Wong, Will Barker, and Wenguang Tang*

- Quantified leaf herbivory and nutrient concentration across nutrient treatment to understand how plant-nutrient responses influence carbon sequestration in tropical carbon sinks. Analyzed more than 2,700 unstructured raster data files using ImageJ. Performed data management, visualization, and analysis in R.

*NSF-REU Intern – Translational Ecology*

May 2020 – August 2020

- Analyzed the effects of nutrient treatment on leaf functional traits across forest succession in a 30-year chronosequence in Agua Salud, Panama to understand how trees in tropical carbon sinks respond to environmental and climate change. Authored a blog on diversity and representation in nature-oriented STEM fields.

**Columbia University Irving Medical Center, Dept of Microbiology**

**New York, NY**

*Undergraduate Student Researcher*

January 2020 – January 2021

*Advisors: Drs. David Fidock and Brian Jonat*

- Identified mutations in *P. falciparum*-infected mice treated with novel antimalarial compounds to provide a basis for antimalarial drug development. Practiced aseptic technique while handling clinical samples used to model antimalarial resistance *in vivo*.

## TEACHING EXPERIENCE

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**University of Houston, Dept of Biology & Biochemistry**

**Houston, TX**

*Graduate Teaching Assistant: Ecology and Evolution Laboratory*

January 2025 – Present

- Guide students in developing and executing field-based group projects monitoring urban wildlife biodiversity in the Greater Houston Area, contributing to a national urban wildlife database network.
- Teach fundamentals of fieldwork safety, the scientific method, data analysis, and critical thinking to support student-led research and scientific inquiry.

*Graduate Teaching Assistant: Introduction to Biology Laboratory I*

September 2024 – December 2024

- Led interactive weekly laboratory sessions for two sections of undergraduate introductory biology (48 students total), integrating hands-on activities to reinforce key concepts and scientific methodologies.

## SERVICE AND OUTREACH

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**Pint of Science United States of America**

**Houston, TX**

*Communications and Social Media Manager*

January 2025 – Present

- Oversee communications for 10+ major U.S. cities for a nonprofit hosting the world's largest annual science festival. Manage social media pages with a collective following of 4,000+, creating digital media assets, flyers, and outreach campaigns. Coordinate on-the-ground engagement efforts to expand community participation and event visibility.

## SKILLS

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**Computer:** R, QGIS, BLAST, Geneious, JMP, Maxent, Linux, HTML, CSS, ImageJ, PopART (Population Analysis with Reticulate Trees), Microsoft Office Suite (Word, Excel, PowerPoint), Google Suite

**Lab & Field:** DNA extraction, PCR, qPCR, gel electrophoresis, microbial culture, microscopy, antimicrobial assays, agar plate preparation, Sanger, Illumina, and Nanopore sequencing, library preparation, transect and quadrat sampling

**Language:** Vietnamese (native), Spanish (conversational), Portuguese (beginner)

## FELLOWSHIPS AND GRANTS

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**American Society of Ichthyologists and Herpetologists: Gaige Fund**

*Source: American Society of Ichthyologists and Herpetologists*

*Funding period: May 2025 – May 2026*

*Funding amount: \$1,500*

**Harvard Travellers Club: Traveller's Fund**

*Source: Harvard Travellers club*

*Funding period: May 2025 – May 2026*

*Funding amount: \$5,000*

**Skype-A-Scientist: Science IRL Community Science Grant**

Source: Skype-A-Scientist  
Funding period: January 2025 – December 2025  
Funding amount: \$800

**Smithsonian Tropical Research Institute BioDiversity Fellowship**

Source: National Science Foundation and Global Sustainability Scholars  
Funding period: October 2023 – October 2024  
Funding amount: \$38,583

**City College of New York Training in Biomechanics, Biophysics, and Biodesign Fellowship**

Source: National Science Foundation  
Funding period: Declined due to scheduling conflicts (2023)  
Funding amount: \$40,000

**North Dakota State University CHANGE Fellowship**

Source: National Science Foundation  
Funding period: Declined due to scheduling conflicts (2023)  
Funding amount: \$36,500

**HONORS AND AWARDS**

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Houston Regional Ecology and Evolution Symposium: First Place Talk	2025
University of Houston Biosciences Students Graduate Society Symposium: First Place Talk	2025
Society for Integrative and Comparative Biology: Charlotte Mangum Support Award	2025
University of Houston Presidential Fellowship	2024
National Science Foundation Graduate Research Fellowship Program (GRFP): Honorable Mention	2023
Columbia University Department of Ecology, Evolution, and Environmental Biology: Dobzhansky Prize	2023
Columbia University UGE Photography Contest: Grand Prize Winner	2023
Society for Integrative and Comparative Biology: Charlotte Mangum Support Award	2022
Society for Integrative and Comparative Biology: Professional Development Award	2022
Jonathan Throne Kopit Prize in Logic and Rhetoric: Finalist	2021

**PROFESSIONAL AFFILIATIONS**

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American Society of Naturalists	2024 - Present
Society for Integrative and Comparative Biology	2022 - Present
American Society of Ichthyologists and Herpetologists	2022 - Present
American Junior Academy of Science	2020

**PUBLICATIONS**

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**Nguyen, J.,** McLaughlin, P., Irian, C., Scheinberg, L., Bell, R. (2024) Diversity and distribution of reed frogs (*Hyperolius* spp.) on Bioko Island, Equatorial Guinea. *The Herpetological Journal*. 34(4): 211–220.  
<https://doi.org/10.33256/34.4.211220>.

**Nguyen, J.,** Becker, C.G., Byrne, A., Medina, D., Harrod, A., Bell, R. Historical prevalence of the chytrid fungus (*Batrachochytrium dendrobatidis*) in amphibian populations in West Africa. *Herpetologica*. 81(3): 206–214.  
<https://doi.org/10.1655/Herpetologica-D-24-00049>.

**Nguyen, J.,** Alujević, K., Bakewell, L., David Curlis, J., Grey, C., Hoffman, E., Lopez-Tacoaman, Y., Wuthrich, K., Cox, C., Logan, M., Williams, C., McMillan, WO. Ecological correlates, genetics, and maintenance of a female-limited polymorphism in the slender anole (*Anolis apletophallus*). (*In preparation*)

**PRESENTATIONS**

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Nguyen, J., Alujević, K., Bakewell, L., David Curlis, J., Grey, C., Hoffman, E., Lopez-Tacoaman, Y., Wuthrich, K., Cox, C., Logan, M., Williams, C., McMillan, WO. Ecological correlates, genetics, and maintenance of a female-limited polymorphism in the slender anole (*Anolis apletophallus*).

- Talk at Society for Integrative and Comparative Biology Annual Meeting. Atlanta, GA. January 2025.

- Poster at International Joint Congress on Evolution. Montreal, Québec, Canada. July 2024.
- Poster at Smithsonian Tropical Research Institute Barro Colorado Island 100 Symposium. Gamboa, Panamá. June 2024.

Nguyen, J., Bell, R. Diversity and distribution of reed frogs (*Hyperolius spp.*) on Bioko Island, Equatorial Guinea.

- Poster presentation at Society for Integrative and Comparative Biology Annual Meeting. Austin, TX. January 2023.
- Oral presentation at California Academy of Sciences Summer Systematics Institute Symposium. San Francisco, CA. July 2021.

Nguyen, J., Batterman, S., Wong, M., Tang, W. Nutrient effects on leaf biomass allocation and herbivory across tropical forest succession. Oral presentation at Cary Institute of Ecosystem Studies Symposium. Online. July 2020.

## REFERENCES

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### **Rayna Bell, PhD**

Curator of Herpetology  
California Academy of Sciences  
55 Music Concourse Dr  
San Francisco, CA 94118  
Phone: 415-847-4118  
Email: rbell@calacademy.org

### **Adam Stuckert, PhD**

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### **Matthew Palmer, PhD**

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