Andrew D. Nguyen

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Experience

2017 - Present Postdoctoral Associate, University of Florida

Manage and lead National Science Foundation funded project on agricultural insect pests.

Investigated behavioral rhythms with time series analyses and wavelet analyses.

2012-2017 Dissertation research; University of Vermont

Worked independently and in collaboration to complete Dimensions grant objectives.

Took projects from ideas to experimentation, data analysis, visualization, and manuscript preparation.

2014 Research Associate, Dr. Lori Stevens lab; University of Vermont

Determined infection frequency of Trypanosome parasites in Kissing bugs that cause Chagas

disease.

2010-2011 Technician; Reaction Biology Corp

High through put screening of potentially therapeutic small compounds.

2009-2010 Technician, Antibody Core Department; Morphotek Inc.

Developed therapeutic antibodies against Acute Myeloid Leukemia (AML).

2007-2008 Co-op intern, Reproductive Toxicology; GlaxoSmithKline

Studied red blood cell differentiation from mouse embryonic stem cells.

2006-2007 Co-op intern, Antibody Core Department; Morphotek Inc.

Developed neutralizing antibodies against Staphylococcal enterotoxin B (SEB).

Education

2012-2017 PhD, Biology; University of Vermont (Burlington), Department of Biology

Thesis title: Evolutionary innovations in ants to thermally stressful environments

Advisors: Sara Helms Cahan, Nicholas J. Gotelli Committee: Brent L. Lockwood, Jill Preston

2004-2009 BSc, Biology; Drexel University (Philadelphia)

Publications

Undergraduate researchers in italics

- 1. **Nguyen AD**, *DeNovellis K*, *Resendez S*, *Pustilnik JD*, Gotelli NJ, Parker JD, Cahan SH. 2017. Effects of desiccation and starvation on thermal tolerance and the heat-shock response in forest ants. J Comp Physiol B:1–10.
 - Paper
- Helms Cahan S, Nguyen AD, Stanton-Geddes J, Penick CA, Hernáiz-Hernández Y, DeMarco BB, Gotelli NJ. 2017. Modulation of the heat shock response is associated with acclimation to novel temperatures but not adaptation to climatic variation in the ants Aphaenogaster picea and A. rudis. Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology 204:113–120.
 - Paper and Data
- 3. **Nguyen AD**, Gotelli NJ, Cahan SH. 2016. The evolution of heat shock protein sequences, cis-regulatory elements, and expression profiles in the eusocial Hymenoptera. BMC Evolutionary Biology 16:15.
 - Paper and Data
- Stanton-Geddes J, Nguyen A, Chick L, Vincent J, Vangala M, Dunn RR, Ellison AM, Sanders NJ, Gotelli NJ, Cahan SH. 2016. Thermal reactionomes reveal divergent responses to thermal extremes in warm and cool-climate ant species. BMC Genomics 17:171.

Skills

Computing:

- Unix General command line, shell bash scripting, and remote computing
- R Data analysis and visualization
- (R)Markdown Integrative word processing and technical reporting
- Python Written scripts to parse genomic data
- Github Reproducible science through version control and online notebooks
- HTML Website development
- Phylogenetics Maximum likelihood (RAxML) and Bayesian (MrBayes)
- Geneious Sequence analysis
- Microsoft Office Data preparation, organization, and word processing

Laboratory:

- RNA,DNA, and protein isolation
- PCR and qPCR
- · Gel electrophoresis: polyacrylamide and agarose
- · Western blotting; immunohistochemistry
- Cell culture (primary and established lines)
- Flow Cytometry

Teaching Experience

2017	Ecological Genomics - Teaching Assistant, University of Vermont
2016	Invited Lecture, Evolution, University of Vermont,
2015	Invited Lecture, Evolutionary Biology for non majors, University of Vermont
2014	Invited Lecture, Evolution, University of Vermont
2014	Exploring Biology - Teaching Assistant, University of Vermont
2013	Cell and Molecular Biology - Teaching Assistant, University of Vermont
2012-2014	Ecology and Evolution - Teaching Assistant, University of Vermont
2012	Principles of Biology - Teaching Assistant, University of Vermont

University Service

2018-Present

University Minority Mentor Program (UMMP)

• Help first year undergraduate students transition into university life.

2018-Present

Editor, University of Florida Postdoctoral Editors Association (UF-PEA)

• Edit written documents for language usage, puctuation, and organization.