May 24, 2023

Nicholas Bone

nicbone@vt.edu Derring Hall, Blacksburg, VA, 24060

Education

Virginia Tech Blacksburg, VA

PhD: Biological Sciences: Uyeda Lab 2019 - 2024 (expected)

Cornell Lab of Ornithology

Ithaca, NY Visiting PhD student with Eliot Miller Jan 2023 - April 2023

Beloit College Beloit, WI

Bachelor of Science: Evolution, Ecology and Behavioral Biology 2015 - 2019

with Honors

Manuscripts

Testing the effectiveness of structured hidden Mk models for complex traits

Nicholas Bone Josef C. Uyeda

in prep

How Knowledge from Ontologies can Enhance Information from Morphological Data

Diego S. Porto, Kaine Lovill, Nicholas Bone Todd J Vision, Josef C. Uyeda in prep

Fundamental constraints on the evolution of vertebrate life histories

George Brooks, Holly Kindsvater, Chris Mull, Nicholas Bone, Josef C Uyeda in prep

 How should functional relationships be evaluated using phylogenetic comparative methods? A case study using metabolic rate and body temperature

Josef C. Uyeda, Nicholas Bone, Sean McHugh, Jonathan Rolland, Matthew W. Pennell Evolution 75 (5): 10971105.

Presentations

Science Friday Seminar, Cornell Lab of Ornithology (March 2023)

Talk: Macroevolution of migratory behavior

• Evolution Conference (June 2022)

Poster: Doors and dead-ends in the evolution of avian migration

• Evolution Conference (June 2021)

Talk: Testing the effectiveness of structured hidden Markov models

Society for Systematic Biology Conference (Jan 2020)

Poster: Hidden states and threshold traits: dimensions of avian migration

• VT Research Day (Jan/Feb 2020)

Poster: Hidden states and threshold traits: dimensions of avian migration

Milwaukee Undergraduate Biological Research Conference (April 2018)

Poster: Limitations of testing for phenotypic convergence using phylogenetic comparative methods

 Yellow River Institute Kaifeng Uni, Henan and Beloit College International Symposium (Nov. 2017)

Talk: Rivers in Transition: Cultural and Physical Landscapes Along China's Yellow River

• Mid-States Undergraduate Conference: Washington University (Nov. 2017)

Talk: Evidence of Convergence in Liolaemus and Sceloporus

• 23rd McNair Undergraduate Conference: SUNY Buffalo (July 2017)

Talk: Evidence of Convergence in Liolaemus and Sceloporus

Awards, Grants & Honours

NSF Graduate Research Fellowship	larch 2020
Dean's Diversity Fellowship	2019
American Naturalist Travel Award	Sept. 2019
Honors Graduate – Biology	May 2019
Dean's Award	2015-2019
WiscAMP Scholar Grant	2017-2018
WiscAMP Travel Award	2018
Dean's List	2016, 2017

Teaching and Mentoring

- Undergraduate research mentor Colin Greear, BIOL2964, BIOL2994 (3 semesters, Summer 2022 Spring 2023)
- Guest lecturer: Intro to Biology two sections (2022)
- Guest instructor: Quantitative Evolutionary Biology (2022)

Service

• Invasive Species BioBlitz (2022)

Organized community iNaturalist sampling event and did data visualization for the Town of Blacksburg.

• Reviewer (ongoing)

Evolution journal (3 manuscripts)

• Restoration Ecology Intern (Summer 2019)

Organized and ran Invasive Species Removal Days for high-school students in the Chicago-area

• WiscAMP/LSAMP Mentor (2016-2018)

Participated in programs and workshops relating to expanding the participation of underrepresented minorities in STEM fields. Mentored underclassmen in research practices