

# Nguyen Tien Anh Quach

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## EDUCATION

### Ph.D. in Geography and Environment

- University of North Carolina at Chapel Hill, Chapel Hill, North Carolina
- Advisor: Dr. Amanda G. DelVecchia
- Graduate Association of Geography and Environment Students
  - *Prospective Graduate Student Recruitment Coordinator* - 2023
- Anticipated date of completion: May 2028

### M.S. in Biology – May 2023

- Towson University, Towson, Maryland
- Thesis title: *Road Salt: A Likely Driver of Long-term Benthic Macroinvertebrate Decline in an Urbanizing Stream* - Advisor: Dr. Susan E. Gresens
- Biology Graduate Student Association – *Ecology Liaison*

### B.S. in Environmental Science – May 2020 – *Summa Cum Laude*

- Troy University, Troy, Alabama
- Program Advisor: Dr. Kewei Yu

### University of Skövde

- Exchange Student in Sweden; Sp18

## HONORS/AWARDS

### University of North Carolina at Chapel Hill

#### Inclusive Excellence Top-Up – 2023

#### Towson University

#### Towson University Graduate Student Association

- Research Grant – 2021
- Travel Grant – 2021; 2022
- Professional Development Grant – 2022

#### Fisher College of Science & Mathematics Travel Grant – 2022

#### Troy University

#### Chancellor's List (GPA 4.0) – Sp20; Fa19; Sp/Fa18; Fa17

#### Provost's List (GPA 3.6) – Sp19; Sp17; Fa16

#### Chancellor's Award for Global Competitiveness – Fa17

## PUBLICATIONS

### Peer-reviewed

**Quach, N. T. A.**, Moore, J., Brittingham, K. B., Genito, D., Gresens, S. E., *In preparation*. A Comparison of Benthic Macroinvertebrate Communities and Water Quality in Red Run Watershed Over Two Decades of Urban Development and Salt Application. Word count: 11,914.

Miller, J. M., **Quach, N. T. A.**, Patel, M., Guillaumet, A., *Submitted*. Environmental Factors and Individual Characteristics Influencing Mussel Survival During Extraordinary Drought Periods: A Dewatering Experiment.

### Non-peer reviewed

Miller, J. M., Patel, M. K., **Quach, N. T. A.**, Guillaumet, A., 2021. Survivability of Mussels, Targeting Federally Listed Species, Over a 13-week Period During the Drawdown of Gantt Reservoir. A Report to Power South Energy Cooperative and U.S. Fish and Wildlife Service as part of the Gantt Reservoir Drawdown Project Agreement (USFWS Project No. 2016-F-0576).

## INVITED PRESENTATION(S)

**Quach, N. T. A.**, 2023. Freshwater Salinization and Its Consequences for Benthic Macroinvertebrate Communities and Water Chemistry. Oral presentation at the virtual Chesapeake Bay Seminar Series at the Maryland Department of the Environment, August 2nd.

## PRESENTATIONS

**Quach, N. T. A.**, Moore, J., Gresens, S. E., 2022. Consequences of Freshwater Salinization for Benthic Macroinvertebrate Communities and Water Chemistry. Poster presentation at the 28th Annual Maryland Water Monitoring Council Conference, December 15th. Linthicum, MD.

**Quach, N. T. A.**, Gresens, S. E., 2022. A Comparison of Benthic Communities and Water Quality in Red Run Watershed Over Two Decades of Urban Development. Oral presentation at the Baltimore Ecosystem Study 24th Annual Meeting, October 13th – 14th. Baltimore, MD.

**Quach, N. T. A.**, Gresens, S. E., 2022. Can a Maryland Piedmont Trout Stream Be Protected from Rapid Urban Development? The Long-Term View. Oral presentation at the virtual 2022 Joint Aquatic Sciences Meeting, May 14th – 20th. Grand Rapids, MI.

**Quach, N. T. A.**, Miller, J. M., Guillaumet, A., Patel, M. K., 2020. Tracking Movement of a Federally Threatened Species of Mussel During the Drawdown of Gantt Reservoir. To be presented at the 81st Annual Meeting of Association of Southeastern Biologists, March 25th – 28th. Jacksonville, FL. *Cancelled due to COVID-19*.

**Quach, N. T. A.**, Miller, J. M., Guillaumet, A., Patel, M. K., 2020. Tracking Movement of a Federally Threatened Species of Mussel During the Drawdown of Gantt Reservoir. Oral presentation at Alabama Mollusk & Crayfish Working Group Meeting, January 15th – 16th. Cullman, AL.

**Quach, N. T. A.,** Moore, A. T., Davis, E. C., Temple, T. N., Miller, J. M., 2019. Preliminary Investigations of Refuges as a Method to Capture Riverine Crayfish. Poster presentation at the 80th Annual Meeting of Association of Southeastern Biologists, April 3rd – 6th. Memphis, TN.

## RESEARCH EXPERIENCE

**Graduate Student Researcher - Road Salt: A Likely Driver of Long-term Benthic Macroinvertebrate Decline in an Urbanizing Stream** (*April 2021 – May 2023*) – Towson University – Thesis Advisor: Dr. Susan E. Gresens

**Graduate Student Researcher - Non-thesis Research in Benthic Taxonomy** (*January 2021 – May 2021*) – Towson University – Supervisor: Mr. Dennis Genito

**Undergraduate Research Assistant - Survivability of Mussels, Targeting Federally Listed Species, During the Drawdown of Gantt Lake Reservoir** (*September 2019 – May 2020*) – Troy University – Principal Investigator/Supervisor: Mr. Jonathan M. Miller

**Undergraduate Student Researcher - Using bird vocalization as a tool for identification and taxonomy** (*January 2020 – May 2020*) – Troy University – Principal Investigator: Dr. Alban Guillaumet

**Undergraduate Student Researcher - NSF RAPID - Rapid response to drought in a biodiversity hotspot** (*September 2018 – May 2020*) – Troy University – Principal Investigator: Dr. Brian Helms

**Undergraduate Student Researcher - Preliminary investigations of refuges as a method to capture riverine crayfish** (*September 2018 – May 2019*) – Troy University – Principal Investigator: Mr. Jonathan M. Miller

## WORK EXPERIENCE

**Field Scientist** (*February 2023 – May 2023*) - Countywide Biological, WQ and Stream Geomorphological Monitoring and Assessment: Round 5/Year 1 And 23-Year Retrospective Analysis, Prince George's County, MD – Clean Streams LLC – Supervisor: Mr. Alexi Sanchez de Boado

**Field Technician Intern** (*May 2019 – December 2019*) - Sanders Lead Company, Inc. - Supervisor: Mr. Chris Rutherford & Mr. Matt Brown

**Volunteer Zoological Museum Technician** (*September 2018 – May 2020*) - Faculty supervisor: Mr. Jonathan M. Miller

## TEACHING EXPERIENCE

**Guest Lecture – BIOL207L – General Zoology** (*March 2023*) – Towson University – Instructor: Dr. Will H. Ryan

**Head Teaching Assistant – BIOL120L – Principles of Biology** (*August 2021 – May 2023*) – Towson University – Supervisor/Lab Coordinator: Mrs. Pamela Healey

**Teaching Assistant – BIOL120L – Principles of Biology** (*August 2020 – May 2023*) – Towson University – Supervisor/Lab Coordinator: Mrs. Pamela Healey

## SKILLS & ABILITIES

- R and RStudio
  - Certified in Data [Visualization](#) and [Wrangling](#) by HarvardX
- ArcGIS Desktop
- PC-ORD v7.09
- Benthic macroinvertebrate sampling (certified by the Maryland Biological Stream Survey)
- Taxonomy of freshwater benthic macroinvertebrate of Piedmont region, Maryland
- Stream health and habitat assessments using fish and benthic macroinvertebrate assemblages, IBI, and RBP (EPA)
- Experienced with soil and water quality field instruments (Hydrolab, pH meter, YSI, etc.)
- Proficient with Microsoft Office programs

## NEWS COVERAGE

1. TROY researcher and students studying habitat changes on federally-listed species of mussel. *TROY Today* (2019). Available at: <https://today.troy.edu/faculty-staff/troy-researcher-and-students-studying-habitat-changes-on-federally-listed-species-of-mussel/>

## PROFESSIONAL MEMBERSHIPS

**Society for Freshwater Science** – 2021-present

**Beta Beta Beta** - National Biology Honor Society Mu Epsilon Chapter – 2019-2020

**Association of Southeastern Biologists** – 2019-2020