Keegan D. Nichols

Department of Entomology, Texas A&M University

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**EDUCATION**

**Texas A&M University (TAMU),** College Station, TX, 2022–Present

Ph. D. Student in Entomology

Advisor: Dr. Juliana Rangel

**Austin College,** Sherman TX, 2018-2022

B. A. Biology, Minor Environmental Studies

**SCHOLARSHIPS**

Presidential Scholarship, Austin College 2018

Alumni Scholarship, Austin College 2018

National Football Foundation 2018

**PRESENTATIONS AND POSTERS**

1. **K. Nichols,** J. Rangel. Improving disease resistance and queen quality of managed *Apis mellifera jemenitica* Rutter colonies in Saudi Arabia. Ecological Integrated Symposium, March 2023. Entomological Society of America Southwestern Branch Meeting, April 2023. Poster presentation.
2. **K. Nichols,** L. Garcia. Sublethal effects of neem oil on visual learning of *Osmia lignaria* Say. Entomological Society of America Southwestern Branch Meeting, April 2022. Oral presentation. ***2nd place award***, undergraduate research section.
3. **K. Nichols,** F. Goodavish, B. Berggren, L. Garcia. Native bee biodiversity of Grayson Co., TX. Society of Comparative and Integrative Biology, January 2022. Poster presentation.
4. **K. Nichols,** F. Goodavish, B. Berggren, L. Garcia. Native bee biodiversity of Grayson Co., TX. Texas Academy of Science, February 2022. Poster presentation. ***2nd place poster award***, undergraduate research section.

**PROFESSIONAL AFFILIATIONS**

Entomology Graduate Student Organization, Texas A&M University 2022-Present

 Public Outreach Chair 2023-2024

Entomological Society of America 2021-Present

Phi Sigma Alpha Fraternity 2018- 2022

Austin College Varsity Football 2018-2022

**PROFESSIONAL WORK EXPERIENCE**

**Texas A&M University, Entomology Department - College Station, TX**

1. *Graduate Research Assistant* 2022-Present

Screening for disease prevalence and queen quality of *Apis mellifera jemenitica* honey bees in Saudi Arabia*.* Collaborative project with King Khalid University, Abha, Saudi Arabia.

1. *Apiary Manager* 2023-Present

Manage and care for over 35 honey bee colonies at the Janice and John G. Thomas Honey Bee Facility

1. *Teaching Assistant, FIVS 308 - Forensic Implications of Inheritance* Fall 2022

Mentoring and guiding undergraduate students through methodologies such as DNA extractions and other molecular screening techniques used in forensic investigations.

1. *Teaching Assistant FIVS 316 - Biotechnology & Forensics* Fall 2022

Mentoring and guiding undergraduate students through methodologies such as DNA extractions and other molecular screening techniques used in forensic investigations.

**Austin College, Biology Department - Sherman, TX**

1. *Undergraduate Research Assistant* 2020-2022
2. *Native Bee Biodiversity of Grayson Co.*

Collected native bees using active and passive techniques to gain a diversity sample of native areas. Sampled blackland prairie and urban habitats to compare dataset of bee diversity. Identified native bees to genus and species when able.

1. *Extraction of eDNA from soil and water*

Used eDNA from soil and water to detect the presence of Tiger Salamander and Cricket Frog. Used DNA extraction kits to obtain DNA samples for PCR. Set up and conducted multiple PCRs. We were able to determine the presence of the cricket frog.

1. *Exposing* Aedes aegypti *mosquito larvae to sublethal doses of* Bacillus thuringiensis *(BT)*

Exposed larvae to different levels BT to reflect runoff concentrations in order to study how larvae develop.

1. *Entomology Teaching Assistant* 2021-2022

Managed the college’s insect collection, sorting specimens into orders and families.

Constructed and assisted with students’ insect collections.