

**Rachel McNeal**

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**EDUCATION****Texas A&M University**, College Station, Texas*Doctor of Philosophy in Entomology*

Expected August 2025

GPR: 3.3

Dissertation: "Temperature Impacts Interactions Between Microbes and Carrion Flies: A Comparison Study between a Generalist, *Hermetia illucens*, and a Specialist, *Cochliomyia macellaria*"

Primary Investigator: Dr. Jeffery Tomberlin

*Bachelor of Science in Forensic & Investigative Sciences, Pre-Law Emphasis*

May 2021

*Double Major in Entomology*

Cum Laude

GPR: 3.694

**RELEVANT EXPERIENCE****Texas A&M University AgriLife**, College Station, Texas

August 2021 – Present

*Graduate Teaching Assistant*

- Developed laboratory modules, refined experimental protocols, and revised lecture materials
- Assisting with attendance, questions, and emails
- Managed laboratory courses and activities consistent with learning outcomes
- Creating interactive lectures to accurately teach the appropriate lab materials
- Inventory and purchasing of necessary supplies for laboratory activities
- Evaluating reports, exercises, quizzes, and exams
- Creating laboratory examinations to assess students on their learned skills
- Training subsequent TAs on learning outcomes, material and content, and applications of the material to the broader field of forensic science
- Courses: Introductions to Forensic and Investigative Science, Forensic Biotechnology, Forensic Soil Science, Forensic Microscopy, Forensic Photography, Forensic Implications of Inheritance, Crime Scene Investigations, and Applied Forensic Entomology

**PUBLICATIONS AND PRESENTATIONS**

- "Clarity of Shoe Impressions in Different Soil Types." *Instars: A Journal of Student Research*, Volume 5 (2019).
- "Habitat Preference for Forensically Important Diptera in Toco, Trinidad, WI." Presented at North American Forensic Entomology Association Meeting, June 2020.

**PROFESSIONAL CERTIFICATIONS**

- Forensic Entomology Technician – License #16, 2022, American Board of Forensic Entomology.
- Public Health Entomology, 2021, Texas A&M University

**CASEWORK**

- Assisted in six cases in the Forensic Laboratory for Investigative Entomological Sciences and has signed as an author on one case report.

**INVITED PRESENTATIONS**

- *Malaria*, Public Health Entomology, 2023, Texas A&M University

- *Forensic Entomology: My Journey in Forensic Science After Graduation*, Forensic Science, 2022, Dana Hills High School
- *Using DNA Techniques Without Being a DNA Analyst: Microbes and Forensics*, Forensic Implications of Inheritance, 2022, Texas A&M University
- *Kissing Bugs and Chagas Disease*, Global Public Health Entomology, 2022, Texas A&M University
- *Collection Techniques and the Role of a Forensic Entomologist*, Investigative Biological Forensics, 2022, Indiana University of Pennsylvania
- *Trace Evidence*, Introduction to Forensic and Investigative Science, 2021, Texas A&M University
- *The History of Forensic Entomology*, Investigative Biological Forensics, 2021, Indiana University of Pennsylvania
- *Criminal Profiling*, Introduction to Forensic and Investigative Science, 2021, Texas A&M University

## WORKSHOPS

- *Forensic Entomological Evidence and Collection Techniques*, September 21, 2022, Federal Bureau of Investigations, Dallas, trained thirty FBI agents to collect entomological evidence from remains under varying conditions
- *American Board of Forensic Entomology Technician's Workshop*, July 13 & 14, 2022, Federal Bureau of Investigations, Denver, trained twenty FBI agents to collect entomological evidence from remains under varying conditions in preparation to take a certification exam
- *American Board of Forensic Entomology Technician's Workshop*, July 11 & 12, 2022, Federal Bureau of Investigations, Denver, trained twenty FBI agents on insect biology and to collect entomological evidence from remains under varying conditions in preparation to take a certification exam

## HONORS

- Entomology Scholar's Society**, Texas A&M University April 2019 – May 2021
- Scholarship of \$250 per semester received
  - Assisted with Departmental outreach events such as New Student Conferences
  - Worked as a mentor to lower level and incoming forensic science students to discuss success strategies, study methods, and plans for career success post graduation
- Undergraduate Award**, North American Forensic Entomology Association Summer 2020
- Top undergraduate presentation at the annual NAFEA conference for 2020, award of \$75

## LEADERSHIP

- Entomology Graduate Student Organization**, TAMU June 2022 – Present  
*Vice President of the Internal*
- Planning and organization of general and officer meetings
  - Representative for Entomology graduate students within the Department of Entomology
  - Manage online and social media presence
  - Outreach with local community events and schools