

**To Whom It May Concern:**

This signature page is to verify that the curriculum vitae being submitted is the most current.

Sincerely,

A handwritten signature in black ink, appearing to read 'Samantha J. Sawyer', written in a cursive style.

Samantha J. Sawyer, PhD, M-ABFE

**SAMANTHA J. SAWYER**  
**CURRICULUM VITAE**

**ADDRESS**

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**EDUCATION**

- PhD. Entomology, Texas A&M University**, 2017- 2021. [Dissertation](#): *Impact of Selective Preferences of Vertebrate Scavenging on Arthropod Communities Associated with Carrion of Varying Biomass Across Seasons.*
- B.S. Biological Sciences, Bridgewater State University**, 2013 – 2017. [Departmental Honors Thesis](#): *Effects of Carrion Decomposition on Arthropod Community Structure and Habitat Seeking Behavior*
- Professional Certificate of Proficiency, Biotechnology**. Assabet Valley Regional Technical Vocational High School, 2009-2013

**PROFESSIONAL APPOINTMENTS**

1. **Assistant Professor**. August 2022-Present. Department of Natural Science and Mathematics, Curry College.
2. **Postdoctoral Scholar**. October 2021-August 2022. Split appointment between the Spatial Epidemiology and Ecology Research Laboratory, Department of Geography and the Emerging Pathogens Institute, University of Florida.
3. **Adjunct Faculty**. March 2021-August 2022. Academic Division of Natural and Health Sciences, Quincy College.
4. **Graduate Teaching Assistant**. September 2019-October 2021. Teaching laboratory and lecture courses in the Entomology and Forensic and Investigative Science programs in the Department of Entomology, Texas A&M University.
5. **Graduate Research Assistant**. June 2017- September 2019. Evaluating and improving practices employed by U.S. forensic scientists to locate critical literature for use in investigations, Texas A&M University.
6. **Tutoring Central Liaison**, August 2015- May 2017. Secretary for all Tutoring, Bridgewater State University.
7. **Biology Tutor**, January 2015- May 2017. Tutor in General Biology, General Ecology and Biological Science for non-majors, Bridgewater State University.
8. **Undergraduate Research Assistant**, Fall 2014. An evaluation of predator control as a means to increase fledge rates of protected shorebirds at Duxbury Beach Massachusetts, Bridgewater State University.
9. **Teaching Assistant**, June 2014- July 2014. Forensic Science, Biological Science and Engineering for Middle and High Schoolers, Summer Science Experience, Massasoit Community College.

**INSTITUTIONAL AFFILIATIONS**

**Graduate Faculty Member.** 2023- Present. Department of Entomology, Texas A&M University. College Station, TX.

**Intercollegiate Collaborator.** 2022-Present. Emerging Pathogens Institute. University of Florida. Gainesville, FL.

**PUBLICATIONS**

<sup>U</sup> Indicates undergraduate student researchers mentored.

<sup>M</sup> Indicates Master student researchers mentored.

**Sawyer, S.J.** M.D. Eubanks, and J.K. Tomberlin. 2024. Not all Mass Mortalities are Equal. *EcoEvoRXIV*. Pre-Print

**Sawyer, S.J.** 2023. Inclusion of LGBTQ+ Topics in Forensic Science Education. *Journal of Forensic Science Education*. 5(2).

Bloch, C.P., **S.J. Sawyer**, N.B. Hathaway, K. Bouley, J.L. Briggs, V. Frew, T.D. Surasinghe. 2022. Biophysical predictors of spatial variation in abundance and population dynamics of an invasive decapod. *Marine Biology*. <https://doi.org/10.1111/maec.12732>

Jiranantasak, T., J.S. Benn, M.C. Metrailler, **S.J. Sawyer**, M.Q. Burns, A.P. Bluhm, J.K. Blackburn, M.H. Norris. 2022. Measuring *Bacillus anthracis* replication and persistence on environmental substrates associated with wildlife anthrax outbreaks. *PLoS One*. <https://doi.org/10.1371/journal.pone.0274645>

**Sawyer, S.J.**, M.D. Eubanks, J.C. Beasley, B.T. Barton, R.T. Puckett, J.M. Tomeček, J.K. Tomberlin. 2022. Vertebrate and Invertebrate Competition for Carrion in Human-impacted Environments Depends on Abiotic Factors. *Ecosphere*. <https://doi.org/10.1002/ecs2.4151>

Flint, C.A., **S.J. Sawyer**, J. Rhinesmith-Carranza, and J.K. Tomberlin. 2022. Rodent scavenging of pig remains potentially increases oviposition sites for primary colonizers. *Journal of Forensic Science*. DOI: <https://doi.org/10.1111/1556-4029.15025>

Bankston, S., L. Sare, **S.J. Sawyer**, J.K. Tomberlin. 2021. Forensic science information seeking behaviors. *Journal of Forensic Science Education*. 3(1).

Graham<sup>U</sup>, S., **S.J. Sawyer**, K. Denton<sup>U</sup>, O. Crozier<sup>U</sup>, J.K. Tomberlin. 2021. Resource access impacts adult longevity and resiliency of *Lucilia eximia* (Diptera: Calliphoridae). *Journal of Clinical and Health Sciences*. 6(1): 44-51. DOI: <https://doi.org/10.24191/jchs.v6i1>

**Sawyer, S.J.**, T.W. Rusch, A.M. Tarone, and J.K. Tomberlin. 2021. Wing buzzing as a potential antipredator defense against an invasive predator. *Food Webs*. 27: e00192. DOI: <https://doi.org/10.1016/j.fooweb.2021.e00192>

**Sawyer, S.J.**, and C.P. Bloch, 2020. Effects of carrion decomposition on litter arthropod assemblages. *Ecological Entomology*. 45(6): 1499-1503. DOI: <https://doi.org/10.1111/een.12910>.

### ***Submitted for Review***

**Sawyer S.J.**, B. Bailey<sup>U</sup>, C. O'Reilly<sup>U</sup>, S. Channen<sup>U</sup>, E. Wade, L. Turner-Burrell<sup>U</sup>, A. Beauregard<sup>U</sup>, D. Barrasso<sup>U</sup>, H. Gonsalves<sup>U</sup> Increased surface area of animal remains impact on colonization of necrophagous arthropods. *Journal of Medical and Veterinary Entomology*

O'Dell A., N.M. Rametov, M. Orynbayev, S. Kopeyev, A. Kerimbayev, T. Karibayev, J.P. Orange, **S.J. Sawyer**, J.K. Blackburn. Evaluating Livestock Commingling in a Brucellosis Risk Zone in Kazakhstan. In Review: *Applied Animal Behavior Science*.

### ***In Revision for Submission***

**Sawyer, S.J.**, A. Bauer<sup>M</sup>, A.K. Jones<sup>U</sup>, B.T. Barton, J.K. Tomberlin. Effects of Mass Mortality Events (MMEs) and vertebrate scavenger consumption on arthropod community assemblages. Target: *Oikos*.

Rusch T.W., **S.J. Sawyer**, A. Orr, N. Richter, D. Sohn<sup>U</sup>, L. Gagner<sup>U</sup>, A. Smith<sup>U</sup>, J.K. Tomberlin, and A.M. Tarone. The effects of a brief heat exposure on the oviposition behaviors of the hairy maggot blow fly *Chrysomya rufifacies* Macquart (Diptera: Calliphoridae). Target: *Biological Invasions*.

### **BOOKS AND INVITED BOOK CHAPTERS**

**Sawyer, S.J.**, and A.K. Jones. (*expected 2024*). Aggregated Carrion Ecology: Mass Mortality Events. In: **Carrion Ecology, Evolution, and Their Adaptations**, 2<sup>nd</sup> edition, M.E. Benbow, J.K. Tomberlin, and A.M. Tarone (Eds.). CRC Press, Boca Raton, FL.

**Sawyer, S.J.** 2023. *Introduction to the Forensic Sciences Laboratory Manual*, 1<sup>st</sup> edition. CreateSpace, Scotts Valley, SC.

### **PROFESSIONAL MEMBERSHIP**

#### ***Active***

1. **Ecological Society of America.** *Member.* 2024-Present
2. **American Board of Forensic Entomology.** *Member.* 2023-Present
3. **American Academy of Forensic Science.** *Associate Member* 2023-Present
4. **North American Forensic Entomology Association.** 2020- Present
5. **Entomological Society of America.** 2017-Present

#### ***Alumna***

6. **Aggie Women in Entomology.** Active Member 2017-2021, Director of Communications 2020-2021.
7. **Texas A&M Entomology Graduate Student Organization.** Active Member 2017-2021.
8. **Beta Beta Beta, Biological Honors Society; Theta Lambda.** Full Member 2015- 2017, Theta Lambda Chapter President 2015- 2017, Alumna 2017.
9. **Bridgewater State Biology Club.** Active Member 2013-2017. President 2015- 2017.
10. **Alpha Sigma Tau Sorority; Epsilon Sigma.** Active Member 2014-2017; Historian 2014-2015, Director of Academic Success 2015-2017, Tau Honor Council Delegate 2016-2017, Advisor to the Director Academic Success 2017.

## **ACADEMIC SERVICE**

### **Forensic Science Program Coordinator**

*Department of Natural Science and Mathematics, Curry College June 2023-Present*

### **Associate Editor**

*Food Webs 2022-Present*

### **Reviewer**

*Insects 2024 (1)*

*Insects 2023 (3)*

*Journal of Medical Entomology 2022 (1)*

*Food Webs. 2021-2023 (1)*

*Journal of Clinical and Health Sciences. 2021 (1)*

## **ACADEMIC AND PROFESSIONAL COMMITTEES SERVED**

1. Undergraduate Academic Policies Committee (UAPC). June 2023-Present
2. Ecology and Evolutionary Biology Interdisciplinary Program Communications Committee. Co-Chair September 2019-2021.
3. North American Forensic Entomology Association Annual Meeting Planning Committee. 2020 & 2021 annual meetings.
4. Ecological Integration Symposium Planning Committee. Member 2018-2020. President 2019-2020.

## **AWARDS**

1. First Place, Outstanding Presentation of Research Award. 2021. Texas A&M University Department of Entomology Graduate Student Forum.
2. Excellence in Scholarship. 2017. Alpha Sigma Tau Sorority.
3. Knight's Helmet: Outstanding Research Award. 2017. Tri Beta Theta Lambda Chapter.
4. Eighth Semester Dean's List. 2017. Bridgewater State University.
5. Undergraduate Student Poster Competition: Medical and Veterinary Entomology Second Place. 2016. International Congress of Entomology.
6. Student Poster Competition First Place. 2016. North American Forensic Entomology Association.
7. Sixth Semester Dean's List. 2016. Bridgewater State University.
8. Third Semester Deans List. 2015. Bridgewater State University.
9. Second Semester Dean's List. 2014. Bridgewater State University.
10. First Semester Dean's List. 2014. Bridgewater State University.
11. Massachusetts State Scholar Award. 2013. Assabet Valley Regional Technical Vocational High School.
12. Excellence in Forensic Science Award. 2013. Assabet Valley Regional Technical Vocational High School.
13. Outstanding Achievement in Biotechnology. 2013. Biotechnology Vocational Program, Assabet Valley Regional Technical Vocational High School.
14. Colonial Garden Club of Marlborough Scholarship. 2013. Colonial Garden Club of Marlborough, for Outstanding Achievement in Agricultural and Related Sciences.
15. Massachusetts State Science Fair Second Place Award. 2013.
16. Worcester Regional Science and Engineering Fair Fifth Place Award. 2012.

**PENDING GRANTS (10,000 requested)**

- Furbearers Unlimited Grant. 2024. \$2,500 requested. “Monitoring wildlife through trail camera and fecal material to assess pathogen risk associated with *Giardia duodenalis*.”
- Fuller Foundation Grant for Wildlife. 2024. \$7,500 requested. “Monitoring *Giardia duodenalis* within domestic and wild animals in and around recreationally used nature reserves.”

**COMPETITIVE GRANTS FUNDED (Approx. \$7,200 received)**

1. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Spring Semester Grant. 2017. \$300. “Behavioral response of *Nasonia vitripennis* (Hymenoptera) when exposed to different species of carrion”
2. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Fall Semester Grant. 2016. \$300. “Determining the origin of volatile compounds that stimulate olfactory response in *Nasonia vitripennis*”
3. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Spring Semester Grant. 2016. \$300. “Effects of carrion decomposition on litter arthropod assemblages”
4. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Fall Semester Grant. 2015. \$300 “Continuation on effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content”
5. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Summer Grant. 2015. \$4,500 “Effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content”
6. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Spring Grant. 2015. \$750 “Competitive feeding behaviors of native and invasive Brachyurans of New England rocky shores” Co-authored with K. Bouley, N. Hathaway, and J. Silva.
7. Bridgewater State University, Adrian Tinsley Program for Undergraduate Research, Fall Semester Grant. 2014. \$750. “Habitat associations of invasive Asian Shore Crabs in southern New England” Co-authored with K. Bouley, N. Hathaway, and J. Silva.

**PRESENTATIONS AT PROFESSIONAL MEETINGS**

\* Indicates corresponding author if not the presenting author. <sup>U</sup> Indicates undergraduate researchers mentored.

1. Robinson, M.<sup>U</sup>, E. Nowicki, **S.J. Sawyer**. 2024. Getting Down and Dirty: Analyzing Changes in Soil Microbiota During Three Stages of Mouse Decomposition. American Academy of Forensic Sciences, Denver, CO.
2. **Sawyer, S.J.**, H. Gonsalves<sup>U</sup>, C. O’Reilly<sup>U</sup>, B. Bailey<sup>U</sup>, L. Turner-Burrell<sup>U</sup>, D. Borrasso<sup>U</sup>, S. Channen<sup>U</sup>, A. Beauregard<sup>U</sup>, and E. Wade. 2023. Bifurcation of animal remains impact on the colonization of necrophagous arthropods. Entomological Society of America, National Harbor MD.
3. **Sawyer, S.J.**, A. Beauregard<sup>U</sup>, D. Borrasso<sup>U</sup>, B. Bailey<sup>U</sup>, C. O’Reilly<sup>U</sup>, L. Turner-Burrell<sup>U</sup>, H. Gonsalves<sup>U</sup>, S. Channen<sup>U</sup>, W. Noyes<sup>U</sup>, and E. Wade. 2023. Geospatial and Temporal Variation of Vertebrate and Invertebrate Scavenger Densities in Eastern Massachusetts. Northeast Natural History Conference, Burlington, VT.
4. **Sawyer, S.J.** 2023. Influence of Biomass and Bisection of Remains on the Production of Necrophagous Flies. The American Academy of Forensic Sciences Annual Meeting, Orlando, FL.
5. **Sawyer, S.J.**, M.H. Norris, and J.K. Blackburn. 2022. Estimating the case multiplier potential of flies: how much *Bacillus anthracis* can a *Chrysomya rufifacies* (Macquart) (Diptera: Calliphoridae)

- population amplify? North American Forensic Entomology Association Annual Meeting, Newark, NJ.
6. Graham, S.<sup>U</sup>, **S.J. Sawyer**, and J.K. Tomberlin. 2022. Investigations of the Blow Fly *Lucilia eximia* (W.) (Diptera : Calliphoridae) for use in Forensic Entomology: Nutrition Impacts Longevity and Temperature Impacts Development. Southwestern Branch Meeting of the Entomological Society of America, Fort Worth, TX.
  7. Jiranantasak, T., J.S. Benn, M.C. Metrailler, **S.J. Sawyer**, M.Q. Burns, A.P. Bluhm, J.K. Blackburn, and M.H. Norris. 2022. Measuring *Bacillus anthracis* replication and persistence on environmental substrates. University of Florida, Emerging Pathogens Institute Research Day, Gainesville, Florida.
  8. **Sawyer, S.J.**, M.D. Eubanks, and J.K. Tomberlin. 2021. Not All Mass Mortalities are Equal: Quantifying the Impact of Mass Mortality Events on Scavenger Population Dynamics. Teas A&M Department of Entomology Graduate Student Forum, College Station, TX.
  9. **Sawyer, S.J.** and J.K. Tomberlin. 2021. *Lucilia eximia* (Wiedemann) (Diptera: Calliphoridae) attraction and colonization behavior: a little studied species with great forensic importance. American Academy of Forensic Sciences (Online).
  10. **Sawyer, S.J.**, M.D. Eubanks, J.C. Beasley, R.T. Puckett, J.M. Tomecek, B.T. Barton, and J.K. Tomberlin. Carrion fate in fragmented landscapes: predation paradox and Red Imported Fire Ant dilemma. Entomological Society of America Annual Meeting (online).
  11. Graham, S.<sup>U</sup>, **S.J. Sawyer**, J.K. Tomberlin. 2020. Longevity of adult *Lucilia eximia* (W.) (Diptera : Calliphoridae) under standard conditions. Digital World Congress Forensic Entomology (online).
  12. **Sawyer, S.J.**, J.K. Tomberlin. 2020. Habitat, season, and carrion type impact competition between vertebrate and invertebrate scavengers in Southeast Texas. North American Forensic Entomology Association Annual Meeting. Houston, TX (via Zoom)
  13. **Sawyer, S.J.**, J.K. Tomberlin. 2020. Vultures, ants, and flies oh my! Competition for small carrion across habitat, season, and carcass type. Ecological Integration Symposium. College Station, TX (via Zoom)
  14. Denton, K.<sup>U</sup>, O. Crozier<sup>U</sup>, S. Graham<sup>U</sup>, **S.J. Sawyer**, J.K. Tomberlin. 2020. Longevity and resiliency of adult *Lucilia eximia* (Wiedemann) (Diptera : Calliphoridae) males and females under standard conditions. 21st Annual Ecological Integration Symposium, College Station TX.
  15. Crozier, O.<sup>U</sup>, S. Graham<sup>U</sup>, K. Denton<sup>U</sup>. **S.J. Sawyer**, T.W. Rusch, J.K. Tomberlin. 2020. Voluntary thermal maximum of *Lucilia eximia* (Wiedemann) (Diptera : Calliphoridae) larvae. 21st Annual Ecological Integration Symposium, College Station TX.
  16. **Sawyer, S.J.**, J.K. Tomberlin. 2019. Vertebrate scavengers' impact on primary colonizers of small carrion in differing habitat and season. Graduate Student Forum, College Station, TX.
  17. **Sawyer, S.J.**, B.T. Barton, M.A. Lashley, H.R. Jordan and J.K. Tomberlin. 2019. Vertebrate scavenger access to mass mortality events impact on associated arthropod community structure. Ecological Integration Symposium. College Station, TX.
  18. Sare, L., S. Bankston, J.K. Tomberlin, **S.J. Sawyer**. 2019. Improving forensic science information seeking. 71<sup>st</sup> American Academy of Forensic Sciences Annual Scientific Meeting. Baltimore, MD.
  19. **Sawyer, S.J.**, B.T. Barton, M.A. Lashley, H.R. Jordan and J.K. Tomberlin. 2018. Vertebrate scavenger access to mass mortality events impacts associated arthropod community structure. Entomological Society of America, ESC, and ESBC Joint Annual Meeting. Vancouver, Canada.
  20. Bauer, AM., **S.J. Sawyer\***, A.K. Jones<sup>U</sup>, B.T. Barton, M.A. Lashley, H.R. Jordan, J.K. Tomberlin. 2018. Mass Mortality Events impact on arthropod community composition. European Association for Forensic Entomology Annual Meeting. Munich, Germany.
  21. Jones, AK<sup>U</sup>, **S.J. Sawyer**, J.K. Tomberlin. 2018. Mass Mortality Events in relation to carrion ecology and forensic entomology emphasizing taxonomic resolution. 19th Annual Ecological Integration Symposium, College Station TX.

22. Jones, AK<sup>U</sup>, **S.J. Sawyer**, J.K. Tomberlin. 2018. Mass Mortality Events in relation to carrion ecology and forensic entomology emphasizing taxonomic resolution. Student Research Week at Texas A&M, College Station TX.
23. **Sawyer, S.J.**, V. Frew and C.P. Bloch. 2017. Behavioral response of *Nasonia vitripennis* (Hymenoptera) when exposed to different species of carrion. Northeast Natural History Conference. Cromwell, CT.
24. Bloch, C.P., **S.J. Sawyer**, V. Frew. 2017. Environmental Correlates of abundance and impact of the invasive Asian Shore Crab (*Hemigrapsus sanguineus*). Northeast Natural History Conference. Cromwell, CT.
25. **Sawyer, S.**, and C.P. Bloch. 2016. Effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. 2016 XXV International Conference of Entomology, Orlando, FL.
26. **Sawyer, S.**, and C.P. Bloch. 2016. Effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. North American Forensic Entomology Association at 2016 XXV International Conference of Entomology, Orlando, FL.
27. **Sawyer, S.**, and C.P. Bloch. 2016. Effects of carrion decomposition on litter arthropod assemblages. Adrian Tinsley Program Student Art and Research Symposium, Bridgewater, MA.
28. **Sawyer, S.** 2016. Analysis of trauma on skeletal remains. Adrian Tinsley Program Student Art and Research Symposium, Bridgewater, MA.
29. **Sawyer, S.**, and C.P. Bloch. 2016. Effects of carrion decomposition on litter arthropod assemblages. Northeast Natural History Conference, Springfield, MA.
30. **Sawyer, S.**, and C.P. Bloch. 2015. Effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. Adrian Tinsley Program Summer Research Symposium, Bridgewater, MA.
31. **Sawyer, S.**, K., Boyd, K., Clark, and C.P. Bloch. 2015. Effectiveness of Predator Control at Duxbury Beach and its Effects on Protected Shore Birds. Northeast Natural History Conference, Springfield, MA.
32. Hathaway, N.B., C.P. Bloch, K. Bouley, B. Klingbeil, **S. Sawyer**, and J. Silva. 2015. A comparison of biodiversity and community structure between temperate and subtropical rocky shores. Northeast Natural History Conference, Springfield, MA.
33. Bouley, K., N.B. Hathaway, **S. Sawyer**, J. Silva, and C.P. Bloch. 2015. Effects of human activity and an invasive species on intertidal communities in southern New England. Northeast Natural History Conference, Springfield, MA.
34. Silva, J., K. Bouley, N. Hathaway, **S. Sawyer**, and C.P. Bloch. 2015. Habitat correlates of Asian Shore Crab density on rocky shores in southern New England. Northeast Natural History Conference, Springfield, MA.

## INVITED SEMINARS

1. **Sawyer, S.J.** 2024. Investigating Death and Disease: Utilizing Ecology to inform Medicolegal Entomology and Wildlife Epidemiology. Department of Entomology and Plant Pathology, University of Tennessee.
2. **Sawyer, S.J.** 2023. Dead men tell no tales, but the insects can; how research in ecology informs forensic science. Curry College, Curry Author Series, Milton, MA.
3. **Sawyer, S.J.** 2023. Forensic Entomology: Utility of Insect Evidence in Forensic Investigations. New England State Police Administrators Conference (NESPAC), Massachusetts State Crime Laboratory, Maynard, MA.
4. **Sawyer, S.J.** 2022. Vultures, Flies, and Anthrax Oh My! Carrion's role in pathogen spread. Bridgewater State University, Friday Informal Seminar Hour, Bridgewater, MA.
5. **Sawyer, S.**, and C.P. Bloch. 2017. Behavioral response of *Nasonia vitripennis*



- (Hymenoptera) when exposed to different species of carrion. Friday Informal Seminar Hour, Bridgewater, MA.
6. **S. Sawyer**, and C.P. Bloch. 2016. Continuation on effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. Bridgewater State University Friday Informal Seminar Hour, Bridgewater, MA.
  7. **S. Sawyer**, and C.P. Bloch. 2015. Preliminary assessment on effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. Assabet Valley Regional Technical High School Informal Seminar, Marlborough, MA.
  8. **S. Sawyer**, and C.P. Bloch. Fall 2015. Assessment on effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. Bridgewater State University Research Informal Seminar, Bridgewater, MA.
  9. **S. Sawyer**, and C.P. Bloch. Spring 2015 Preliminary assessment on effects of decomposition of carrion on surrounding arthropod populations and soil nutrient content. Bridgewater State University Friday Informal Seminar Hour, Bridgewater, MA.

### INVITED LECTURES

*\* Indicates Invited Lecture at an International University or Organization.*

1. **Mass Mortality Events.** EPP/AGNR 481: Eaters of Death: Introduction to Forensic Entomology. Department of Entomology and Plant Pathology, University of Tennessee. 2024. Co-Authors: J.K. Tomberlin and S.J. Sawyer
2. **Cues and Signals; Chemical Ecology.** Forensic Entomology, Arizona State University Forensic Science PSM Program, 2023.
3. **Introduction to Forensic Entomology.** \* XXXIV Veterinary Academic Week, University of Rio de Janeiro, RJ, Brazil. 2021
4. **Ecology Improves Forensic Entomology.** BIO 211: Investigative Forensic Science, Indiana University of Pennsylvania, Indiana, PA. 2021.
5. **Ecology Improves Forensic Science.** FIVS 481: Seminar, Texas A&M University, College Station, TX. 2021.
6. **The Time of Colonization Interval and Forensic Entomology Case Report Writing.** \* The University of the West Indies Mona Campus, Kingston, Jamaica. 2021.
7. **Entomotoxicology.** FIVS431: The Science of Forensic Entomology (online). Texas A&M University, College Station, TX. 2021.
8. **Cues and Signals: Chemical Ecology.** FIVS431: The Science of Forensic Entomology (online). Texas A&M University, College Station, TX. 2021.
9. **Entomotoxicology.** FIVS431: The Science of Forensic Entomology. Texas A&M University, College Station, TX. 2020.
10. **Cues and Signals: Chemical Ecology.** FIVS431: The Science of Forensic Entomology. Texas A&M University, College Station, TX. 2020.
11. **Pathology.** FIVS431: The Science of Forensic Entomology. Texas A&M University, College Station, TX. 2020.
12. **Insect Orders.** FIVS431: The Science of Forensic Entomology. Texas A&M University, College Station, TX. 2020.
13. **Calliphorid Biology and Identification.** ENTO208: Veterinary Entomology. Texas A&M University, College Station, TX. 2019.
14. **Biological Profiles.** FIVS205: Introduction to Forensic Science. Texas A&M University, College Station, TX. 2019.

15. **Osteobiology.** FIVS205: Introduction to Forensic Science. Texas A&M University, College Station, TX. 2019.
16. **Forensic Anthropology.** FIVS205: Introduction to Forensic Science. Texas A&M University, College Station, TX. 2019.
17. **Blood Spatter.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2019.
18. **Forensic Anthropology.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2019.
19. **Handwriting Analysis.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2018.
20. **Forensic Anthropology.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2018.
21. **How to Create and Maintain an Insect Collection.** 4H/FFA Entomology Workshop, College Station, TX. (Selking, R., and S.J. Sawyer) 2018.
22. **Hair and Fiber Analysis.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2017.
23. **Forensic Anthropology.** Youth Adventure Program: Investigative Forensics, College Station, TX. 2017.
24. **Being a Successful Research Student.** Assabet Valley Regional Technical High School Biotechnology, Marlborough, MA. 2017.
25. **College Research Opportunities and How to Get Your Foot in The Door.** Assabet Valley Regional Technical Vocational High School Biotechnology, Marlborough MA. 2016.

#### **DEVELOPED COURSES**

1. **Forensic Anthropology (FSC 3008):** Department of Science and Math, Curry College.
2. **Field Ecology with Lab (BIOL 2310):** Department of Science and Math, Curry College.
3. **Medicolegal Forensic Entomology (FSC 3008):** Department of Science and Math, Curry College. Spring 2023.
4. **Introduction to the Forensic Sciences (FSC 1010):** Department of Science and Math, Curry College. Spring 2023
5. **General Biology II with Lab (BIO112):** Academic Division of Natural and Health Science, Quincy College.
6. **Introduction to Forensic Science with Lab (CHE103):** Academic Division of Natural and Health Science, Quincy College. Taught Spring 2021
7. **Special Topics in Decomposition Ecology (ENTO689):** Accepted by the Department of Entomology, Texas A&M University

#### **COURSES TAUGHT**

##### **Instructor of Record**

*Curry College*

**Field Ecology with Lab.** Fall 2022.

**Introduction to Organisms Laboratory.** Fall 2022. Spring 2024

**Introduction to Organisms Lecture.** Spring 2023, 2024

**Medicolegal Forensic Entomology with Lab.** Spring 2023

**Crime Laboratory.** Fall 2023

**Introduction to the Forensic Sciences.** Taught semesterly starting in Spring 2023  
**Curry LAUNCH.** Fall 2023  
**Forensic Case Investigations.** Fall 2022.  
**Senior Seminar.** Fall 2022 and 2023

*Quincy College*

**Introduction to Forensic and Investigative Sciences with Lab.** Fall 2022, Spring 2021, 2022.  
**General Biology II with Lab.** Summer 2022, Fall 2021.

**Teaching Assistant:**

*Texas A&M University*

**Veterinary Entomology.** Fall 2019.  
**Medical Entomology.** Fall 2019 & 2021.  
**Applied Forensic Entomology.** Spring 2020 & 2021.  
**The Science of Forensic Entomology.** Spring 2021.  
**Forensic Microscopy.** Fall 2021.  
**Crime Scene Investigation.** Spring 2020 & 2021.  
**Forensic Soil Science.** Fall 2020.  
**Forensic Impression Evidence.** Fall 2020.  
**Forensic Science Seminar.** Spring 2020.  
**Forensic Investigations Online.** Fall 2019 & Spring 2020  
**Introduction to Forensic Science.** Fall 2019.

**PROFESSIONAL DEVELOPMENT**

1. **Course Hero Education Summit.** July 2022. Training on best teaching practices to increase student success and improve diversity, equity, and inclusion.
2. **Aquatic Forensic Entomology- NAFEA.** June 2022. Field training on collecting forensically important arthropod and biofilm evidence from animal remains.
3. **Quality Matters.** March 2021. Designed to train faculty in developing well-structured courses to improve student learning outcomes in online courses.
4. **Perspectives on Diversity and Inclusion in Forensic Science.** February 2021. Designed to establish where improvements need to be made to allow for inclusivity in the forensic sciences and beyond. *American Academy of the Forensic Sciences.*
5. **Academy of Future Faculty.** August 2019-Present. Program committed to prepare teaching philosophies, teaching portfolios, and course development to better prepare for faculty positions, CIRTl Texas A&M University.
6. **An Introduction to Evidence-Based Undergraduate STEM Teaching.** Summer 2019. To create a classroom environment using evidence-based teaching and development practices in STEM classrooms, CIRTl MOOC.
7. **Teaching Assistant Institute (TAI).** Summer 2019. To effectively educate and support higher education for undergraduate students, Center for Teaching Excellence (CTE) Texas A&M University.
8. **Learning to Teach Online.** June 2019. To develop and execute effective teaching practices for online learning, Linked-In Learning (Lynda.com).
9. **Teaching Techniques: Blended Learning.** June 2019. Incorporating hybrid style teaching practices, and incorporating technology in the classroom, Linked-In Learning (Lynda.com).

10. **Teaching Techniques: Course Development.** June 2019. Focusing on backwards design and blooms taxonomy to effectively develop a curriculum, Linked-In Learning (Lynda.com).
11. **Mentoring Undergraduates in Research: A Workshop for Graduate Students.** May 2018. To develop effective strategies for graduate Students when mentoring undergraduate researchers, Texas A&M Center for Teaching Excellence.

### **WORKSHOPS CREATED AND DIRECTED**

1. **Forensic Entomology Workshop: Curry College.** April 2024. Twelve contact hour, non-credit bearing continuing education course designed to educate law enforcement and advanced forensic science students in the proper collection and documentation of insect evidence in death investigations.
2. **Forensic Entomology Workshop: NAFEA Annual Meeting.** July 2021. Collaborative effort between Samantha Sawyer, Jennifer Rhinesmith-Carranza (T-ABFE), Casey Flint, and Michelle Sanford (PhD, D-ABFE) to teach Crime Scene Investigators, novice entomologists, and anthropologists about how to collect insect evidence and how to calculate Time of Colonization Estimations as a primer for the ABFE Technician Certification Exam.
3. **Black Soldier Flies- A Quick and Easy Method for Composting.** May 2021. Collaborative effort between the F.L.I.E.S. Facility, Texas A&M AgriLife Extension, and EVO Conversion Systems to teach Master Naturalists, Master Gardeners, the Human Initiative Program (Uganda), Faculty at academic institutions, and the public about the utility of the Black Soldier Fly (BSF) in composting various plant and food waste and the utility of BSF in circular economies as animal feed and soil amendments.
4. **FBI Denver Division ERT Forensic Entomology Workshop.** April 2021. Trained the Denver Division FBI Evidence Response Team how to collect, preserve and ship entomological evidence to Forensic Entomologists.
5. **Digital Forensic Entomology Technician Workshop.** 2021. To teach law enforcement and medical/veterinary pathologist best practices for improving collection of entomological evidence.
6. **Conroe TX PD Forensic Entomology Workshop.** June 2019. Taught law enforcement the utility of Forensic Entomology and practices to improve collection of entomological evidence.

### **OUTREACH AND COMMUNICATION EVENTS**

1. **MassArt STEM Activity for Children.** February 2022. Served as a consultant in the design of a STEM activity geared to children 3-7 to understand concepts surrounding climate change.
2. **Darwin Day (online).** February 2021. Created a video emphasizing the role of decomposition research in sustainable agriculture and forensic entomology.
3. **Darwin Day.** February 2020. Directed the decomposition ecology station to emphasize the importance of flies at animal and plant decomposition.
4. **Expanding Your Horizons Workshop.** January 2020. Assisted with running the entomology room to teach middle school girls about fields in science.
5. **Graduate Student Panel.** November 2019. Assisting forensic science students in deciding if graduate programs are right for them.
6. **Bryan High School Demo.** November 2020. Educated high school students in a science club about biodiversity of insects and their impacts on humans.

7. ***Girl Scout STEAM Event.*** May 2019. Educating over 120 Girl Scouts on the importance of insects in society.
8. ***BioBlitz.*** April 2019. Educate the public on the biodiversity of insects and other arthropods, as well as biology, and how to identify common species.
9. ***4H/FFA Workshop.*** Spring 2018 and 2019. Ran the Coleoptera room, helping high school students identify common and agriculturally important beetles, and teach how to create insect collections.
10. ***Lick Creek Park, Arachnid Education Outreach Event.*** November 2018.
11. ***Boonville Days.*** October 2018. Educated the public about insects and related arthropods.
12. ***Forensic Science Camp.*** Summer 2017, and 2018. Teaching assistant, educating high school students on various fields in Forensic Science.
13. ***4H insect collection and identification judge, and graduate student panelist.*** June 2018. Judged high school insect collections and discussed graduate school in entomology.
14. ***Creek View Elementary School Demo.*** May 2018. Interactive display of live and curated insects to teach third graders about Entomology.
15. ***Science Olympiad.*** Spring. 2018. Judged the “Picture This” competition.
16. ***Judge, Ecological Integration Symposium.*** Spring 2018. Judged Undergraduate Student Poster Session
17. ***Judge, Student Research Week.*** Spring 2018. Laymen Judge for Graduate Students oral presentations.
18. ***Forest Ridge Entomology Demo.*** Spring 2018. Assisted educating elementary school students about entomology through live and curated arthropod specimens.
19. ***Expanding Your Horizons Workshop.*** Spring 2018. Assisted with running the entomology room to teach middle school girls about fields in science.
20. ***Darwin Day.*** Fall 2016. Assisted run educational booths and documentary showings for the public and the local middle school students.
21. ***Universal Children’s Day.*** Fall 2016. Educated middle school students about the importance of our ocean and wildlife living in it.
22. ***Hallowoods.*** Fall 2015- 2016. Cleaned the hiking trails behind Bridgewater State University and educated public about impacts of trash on wildlife.
23. ***Girl Scout Presentation.*** Spring 2013. Educate girl scouts on the importance of insects in Forensics to receive “Bugs” Badge.

### ***Media Outreach***

1. June 2023 (*released*): Phone interview for Curry College News and Events with Jana Brown – “Meet Dr. Samantha Sawyer-Forensic Science” (<https://www.curry.edu/academics/undergraduate-degrees-and-programs/science-and-mathematics-degrees-and-programs/forensic-science/meet-dr-samantha-sawyer-forensic-science>)
2. June 2023 (*released*): In person interview for Curry College News and Events with Emily Machado- “Wooded Acres and Protected Campus Wetlands Provide Students with Ideal Research Environment.” (<https://www.curry.edu/about-us/news-and-events/news/wooded-acres-and-protected-campus-wetlands-provide-students-with-ideal-research-environment>)

## MENTORSHIP

\* Indicates Student Research for Honors Thesis

<sup>M</sup> indicates Master's Student

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### Curry College

Monitoring ecological risk of *Giardia douidinalis* through wildlife and domestic animal scat.

**Madelyn Casey**

**Jarrod-Dean Horne**

**Taylor Conly**

Attraction by necrophagous arthropods to remains with forensically relevant quantities of Ibuprofen and Diphenhydramine, and assessment of Volatile Organic Compounds produced during decomposition.

**Ashley Almida.** Fall 2023-Present.

**Mei Conlon.** Fall 2023-Present.

**Jovina Montiero.** Fall 2023-Present.

Production of flies from mortality events of varying biomass and quantity.

**Olivia Crozier.** Summer 2023-Present.

**Jennifer Cotter.** Summer 2023-Present.

Assessing Interaction of Wildlife with Carion Subsidiaries Within Protected Wetlands

**William Noyes.** Fall 2022- Spring 2023

Geospatial and Temporal Variability of Wildlife in Protected Wetland on Curry College's Campus

**Amelia Beauregard.\*** Fall 2022- Spring 2023

**Lilian DiNoto** Spring 2024-Present

Geospatial and Temporal Variability of Necrophagous Arthropods in Protected Wetland on Curry College's Campus

**Dani Barrasso.** Fall 2022- Spring 2023

**Sarah Channen.** Fall 2022- Spring 2023

**Benjamin Williams.** Fall 2023-Present.

Influence of Transection of Rodent Remains and Presence of *Nicrophorus tomentosus* (Weber) (Coleoptera: Silphidae) on the Production of Necrophagous Flies

**Brittany Bailey.** Fall 2022- Spring 2023

**Hailey Gonsalves.\*** Fall 2022- Spring 2023

**Caitlin O'Reilly.\*** Fall 2022- Spring 2023

**Lily Turner-Burrell.** Fall 2022- Spring 2023

## PROJECTS SERVED AS A CO-ADVISOR

### Curry College

Organic Synthesis of three metabolites derived from Diphenhydramine (Benadryl) and their effects on necrophagous fly production and fecundity.

*Principal Investigator: Nan Chen, MS, Curry College*

**Sarah Corbin.\*** Fall 2023-Present

Soil Microbial Community During Decomposition of Rodent Remains

*Principal Investigator: Emily Nowicki, PhD, Curry College*

**Madeline Robinson.** Fall 2022-Fall 2023

Extracting mammalian DNA from *Sarcophaga bullata* (Diptera: Sarcophagidae) larvae.

*Principal Investigator: Jessica Fry, PhD, Curry College*

**Hannah Adams.** Fall 2023-Present

**Caitlin Lyford-Byrne.** Fall 2023-Present

**Ahmad Quraiishi.** Spring 2023- Present

**Alec Pountain.** Spring 2023-Present

**Rolando Baez.** Spring 2023

**Zachary Berlstein.** Spring 2023

### **Bridgewater State University**

Arthropod community assemblages at heterotrophically and autotrophically derived biomass.

*Principal Investigator: Caitlin Fisher-Reid, PhD., Department of Biological Sciences*

**Morgan Cadd.** Fall 2022- Present

### **Boston University**

Scavenging Behavior of Vertebrates and Invertebrates on Rabbit Carrion in suburban forest patches.

*Principal Investigator: James Pokines, PhD, D-ABFA., Department of Anatomy and Neurobiology*

**Ashley Martinez-Rojas<sup>M</sup>.** Fall 2023-Present

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### **University of Florida, as a Postdoctoral Researcher**

*Undergraduate Research*

Monitoring Livestock and Wildlife Movements as a Surveillance of Brucellosis Risk in Kazakhstan.

**Aryn O'Dell.** Summer 2022.

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### **Texas A&M University, as a PhD Student**

*Undergraduate Research*

Development of *Lucilia eximia* (W.) (Diptera: Calliphoridae) at constant temperatures.

**Steven Graham.** \* January 2020- May 2022. *Undergraduate Honors Thesis* (Withheld on Two Year Embargo)

Upper thermal maximum in *Chrysomya rufifacies* (M.) (Diptera: Calliphoridae) larvae.

**Olivia Crozier.** January 2020- August 2020.

Longevity and resilience of adult *Lucilia eximia* (W.) (Diptera: Calliphoridae).

**Kylie Denton.** January 2020- August 2020.

The effects of a brief heat exposure on the oviposition behaviors of the hairy maggot blow fly *Chrysomya rufifacies* (M.) (Diptera: Calliphoridae).

**Alexandra Smith.** January 2019- May 2019.

**Lauren Gagner.** August 2018- May 2019.

**David Sohn.** May 2018-May 2019.

Determining Lowest Taxonomic Resolution for Early Colonizers of Mass Mortality Events

**Abby Jones.** \* July 2017-May 2018. [\*Undergraduate Honors Thesis.\*](#)

### **Master's Students and Visiting Scholars**

Mass Mortality Event impacts on Arthropod Community Composition.

**Amely Bauer.** January 2018-April 2018. *Visiting Scholar, Masters Student: Georg-August-Universität - Göttingen, Germany.*

Case Reports and Taxonomy of Insects of Forensic Importance.

**Sophia Imeroni.** June 2019-July 2019. *Visiting Scholar, Undergraduate: Loyola University Chicago, IL.*

**Cinthya Saldana.** May 2018-July 2018. *Visiting Fulbright Scholar, Post-Masters Student: Universidad de Valle – Cali, Colombia.*

### **MENTORED STUDENT AWARDS AND NOMINATIONS**

1. **William Noyes.** May 2023. Received the Outstanding Research in the Biological Sciences Award. Curry College.
2. **Danielle Barrasso.** May 2023. Received the Outstanding Research in the Forensic Sciences Award. Curry College.
3. **Hailey Gonsalves.** May 2023. Received the Distinguished Scholar in the Forensic Sciences Award. Curry College.
4. **Amelia Beauregard, Hailey Gonsalves, Lily Turner-Burrell, and Caitlin O'Reilly.** May 2023. Received the Leadership and Innovation in Forensic Science Award. Curry College.
5. **Steven Graham.** April 2022. Received the Undergraduate Student Oral Presentation Award: Third Place. Southwestern Branch Meeting of the Entomological Society of America.
6. **Steven Graham.** February 2022. Received the College of Agriculture and Life Sciences Senior Merit Award. Texas A&M University.
7. **Steven Graham.** September 2021. Nominated by the Department of Entomology, Texas A&M University for the 2022 Goldwater National Scholarship for Outstanding STEM Undergraduate Researchers. National Science Foundation.
8. **Steven Graham.** December 2020. Nominated for the 2020 Dean's Outstanding Achievement Award in Undergraduate Research, Texas A&M University.
9. **Abby Jones.** April 2018. Undergraduate Student Oral Presentation Award: Second Place. 19th Annual Ecological Integration Symposium, College Station TX.

### **GRADUATE STUDENT COMMITTEES SERVED**

1. **Sienna McPeek (PhD Student).** April 2022-Present. Evaluation and Validation of Model Projections for Blow Fly Populations Following Mass/Multiple Mortality Events. *Texas A&M University.*



**FORENSIC ENTOMOLOGY CASEWORK (*formal consult as private contractor*)**

***Cases Led***

1. **F.L.I.E.S. Case 124:** Time of colonization estimate based on entomological evidence associated with domestic dog remains. Texarkana, Arkansas
2. **F.L.I.E.S. Case 125:** Time of colonization estimate based on entomological evidence associated with domestic dog remains. Texarkana, Arkansas
3. **F.L.I.E.S. Case 149:** Time of colonization estimate based on entomological evidence in association with human myiasis. Gladstone, Missouri
4. **F.L.I.E.S. Case 151:** Time of colonization estimate based on entomological evidence associated with feline remains. Harker Heights, Texas

***Cases Reviewed***

1. **F.L.I.E.S. Case 148:** Time of colonization estimate based on entomological evidence associated with human remains. Colorado (FBI)
2. **F.L.I.E.S. Case 150:** Analysis of arthropod evidence. Webb County, Texas
3. **F.L.I.E.S. Case 152:** Time of colonization estimate based on entomological evidence associated with stored food product. College Station, Texas
4. **F.L.I.E.S. Case 155:** Time of colonization estimate based on entomological evidence associated with human remains. Idaho
5. **F.L.I.E.S. Case 156:** Identification of entomological evidence suspected of biting human and domestic animals. Parker County, Texas
6. **F.L.I.E.S. Case 157:** Time of colonization estimate based on entomological evidence associated with human remains. Otis, Oregon
7. **F.L.I.E.S. Case 159:** Time of colonization estimate based on entomological evidence associated with human remains. Reno, Nevada
8. **F.L.I.E.S. Case 160:** Time of colonization estimate based on entomological evidence associated with animal remains.