



ENTOMOLOGICAL
SOCIETY OF AMERICA
MEDICAL, URBAN, AND VETERINARY ENTOMOLOGY

MUVE NEWSLETTER

June 2023

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[Dr. Rebecca Trout-Fryxell](#),
President

[Dr. Kyle Jordan](#),
Vice President

[Dr. Ary Faraji](#),
Vice President-Elect

FROM THE PRESIDENT

Summer Struggle. Y'all, I'm struggling. There is fieldwork to do, manuscripts to revise, proposals to write, letters of recommendation to start, and a course to prep. My eyes and fingers are tired, and I think my computer may give up on me soon, so I am using this opportunity to ask for some help. We have listened to you for the past year and are really making some great progress as a Section. Now that you have told us what you want and we have organized ways to make it happen, we need your help executing it.



Help 1 - A Request for Time: Students indicated they were interested in participating and being more of a formal part of the Annual Meeting. I want to take this moment to invite MUVE students who are attending the ESA meeting this fall to moderate the open sessions. This is a great opportunity for students to give back to the society and membership and meet speakers. Moderators are responsible for keeping presentations on time (a very important task) and introducing the speakers to the audience. There is a training session to help moderators figure out the system and I am willing to meet with you beforehand if you want/need assurance or guidance. Sessions are spread across the meeting (Nov. 5-8), not held on Monday when the student competitions typically occur, and are titled:

- Vector and Pathogen Surveillance - Insects
- Vector Physiology, Biology, and Ecology 1
- Vector Physiology, Biology, and Ecology 2

[Dr. Anna Berry](#),
Secretary

[Dr. Sonja Swiger](#),
Treasurer

[Dr. Ed Vargo](#),
Past President

[Dr. Erika Machtinger](#),
Governing Board Representative

- Urban Entomology - Behavior and Management
- Human Dimensions
- General
- Vector and Pathogen Surveillance
- Vector Control and Resistance Management

If you are interested in being a moderator, **please [email me](#) by September 15** and I will do my best to partner you with another student.

Help 2 - A Request for Resources: Most of our yearly funding comes from members selecting to be a part of our Section (this designates how much money ESA allots to each Section and Annual Meeting attendance). Historically, Section leadership has used this funding for a mixer and travel awards for students to attend the Annual Meeting. While this has been a great start for our membership, current leadership recognizes that the Section can do more for membership if we want to stay relevant to members. This pas year, the Section leadership listened to our membership and surveyed members about what they wanted from the Section and how they would give back to the Section. Most prevalent responses were more opportunities for training and networking and assistance with travel to the Annual and Branch Meetings. Thus, Section leadership has created goals that will benefit current and future members, but accomplishing these goals requires financial support from our partners. We plan to share details with you at the Annual Meeting, but if anyone wants to become the "first sponsor" please let us know. We have grand goals for our Section and great ideas, but we are entomologists. (For those who know and for those who don't, a cheap entomologist can be a redundant phrase.) If you are interested in becoming a sponsor you can help us enhance the meeting by sponsoring a mixer (four opportunities listed below) or an award (several opportunities). ESA can create invoices from the Society to make it easy and to help provide the paperwork for your tax-deductible contribution because our society is a 501(c)3 organization.

Help 3 - A Request to Think of Others: The MUVE Newsletter Committee wants to highlight all the great MUVE members, but to do so we need you to let us know you are there. If you know of a MUVEr who is doing something neat, share it with us so we can share it with everyone. MUVE members need to keep working together and recognize one another for their efforts. [Email Mikenna Smith](#) with your ideas!

My Reminder to You: This one is for you! In the last newsletter I asked you to put this on your calendar, but today I'm asking you to just do it. Friendly links here - early bird registration deadlines ([September 11](#)) as well as hotel deadlines ([October 6](#)). And please don't forget to have someone take pictures of you doing your work and your specimens. We really look forward to seeing you at the meeting, and it is a jam-packed meeting with sessions starting Sunday morning and ending Wednesday afternoon.

- Sunday, November 5: We will have another Mentoring and Networking session to allow people to catch up, introduce themselves to new and seasoned entomologists, and simply network (the primary reason many of us attend meetings).
- Monday, November 6: We will have our traditional business meeting with awards, highlights, updates, and a reception. Our winners for the MUVE logo competition will be announced as well.

- Tuesday, November 7: We will try something a little different - we will problem solve protocol-problems with popcorn (bring your protocol-based problems to the room and hopefully someone in the audience can help think/remember a solution!).
- Wednesday, November 8: We will have our final business meeting led by Vice President Kyle Jordan. While we lunch, Kyle will introduce some of the exciting changes to come next year (proposed by y'all in 2022).

Reading this again, it sounds like I'm getting old and whiny. But, if you read this far, then it did the trick.

Becky

MEMBER SPOTLIGHT: MUVERs



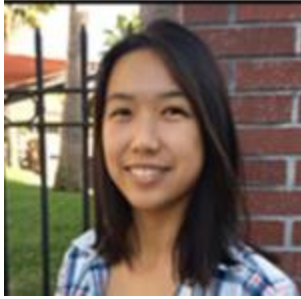
Help us highlight MUVE members and bring their work into the spotlight! Please send any MUVERs news to be included in future newsletters and tweets to [Mikenna Smith](#).



Major Jaree L. Johnson, BCE., Medical-veterinary entomologist with the United States Army, at the Armed Forces Pest Management Board, Jaree L. Johnson was recently selected for promotion to the rank of Lieutenant Colonel. Jaree has had a successful 14-year career in the military, with assignments in various locations such as Japan, Korea, Kenya, Maryland, and Texas. Her selection for promotion is a testament to her outstanding leadership abilities and her remarkable accomplishments in implementing a pesticide resistance program, optimizing insectary rearing procedures, establishing a vector-disease diagnostic lab, and providing consultation with inter-agencies on various outbreaks such as Dengue Fever, Desert Locust, and Chikungunya showcase her hard work and dedication to military entomology. Jaree is also a mentor for early career professionals and students, is highly involved in outreach events, and is frequently invited to give presentations on military entomology.



Cassie Krejci, Ph.D., BCE. was recently promoted to Head of Science and Innovation North America at Rentokil Initial, where she will lead a team of entomologists, chemists and product specialists to grow the company. She will be working in the North America Innovation Center that Rentokil Initial is currently building in Dallas, Texas. The Innovation Center will help Rentokil discover how they want to grow the company in North America and will balance technical science in a lab setting and applied science in the field.



Xinmi Zhang, Ph.D., currently a postdoctoral researcher at the Keck Science Center in Claremont, California, recently published one of her Ph.D. studies conducted at the University of California, Riverside, investigating the overwintering mechanism of an animal pathogen (bluetongue virus) in biting midges (*Culicoides* spp.) in southern California. The journal article titled "Host-Seeking Activity of Adult *Culicoides sonorensis* (Diptera: Ceratopogonidae) During Winter in Southern California, USA, and Assessment of Bluetongue Virus Overwintering" was published in the Journal of Medical Entomology.

NEWS BRIEFS



Photo by Matt Bertone

Blog Post Highlights from *Entomology Today*

- [In Mississippi, Blacklegged Ticks' Seasonal Shift Deemed "Very Strange"](#)
- [Mosquito Sprays Can Reduce West Nile Virus Risk, Even If Population Numbers Don't Drop](#)
- [Wolbachia in Cockroaches: A New Paradigm for Urban Pest Management?](#)
- [New Study Improves Sterile Insect Technique for Mosquitoes](#)
- [Nuisance Arthropods: Sticky Traps Useful in Accurate Detection in Homes, Study Shows](#)

Remember: For the latest breaking news items related to MUVE, please [follow us on Twitter](#).

MUVE STUDENT SPOTLIGHT

Kuan-Ling (Kelly) Liu, Receives the Roger E. Gold Endowed Graduate Scholarship

Kuan-Ling (Kelly) Liu, a Ph.D. student in the Department of Entomology at Texas A&M University, is a recipient of the Roger E. Gold Endowed Graduate Scholarship. Kelly works in Ed Vargo's lab where she is studying the effect of the urbanization on social organization, thermal tolerance, and diet in the odorous house ant, *Tapinoma sessile*, as well as the population genetic structure of the white-footed ant, *Technomyrmex difficilis*, in the U.S.

Students, what accomplishments would you like to highlight for the MUVE Section? Write a short (200 words or less) article explaining your achievements and include this as a non-refereed article on your CV! Please send your achievements to be included in future newsletters and tweets to [Mikenna Smith](#).

VOLUNTEER & LEADERSHIP



Looking for ways to get involved with MUVE or ESA generally? Always feel free to [contact MUVE President Becky Trout Fryxell](#) with your interest.

Volunteer at the ESA Annual Meeting in National Harbor, Maryland (just miles from Washington, DC)

Planning to attend this year's Annual Meeting in National Harbor, MD? There are numerous [volunteer opportunities](#) for attendees to get more involved at this year's meeting.

MUVE Honors & Award Committee

The MUVE Honors & Award Committee is looking for volunteers to serve as judges. Contact [Zach DeVries](#) if you are interested in serving as a volunteer on this section.

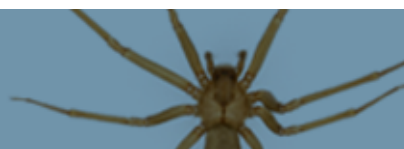
Volunteers Needed for the Grand MUVE Library Initiative

Have you ever thought it would be great to have a one-stop-shop for MUVE-related resources? Are you interested in a common repository for information like MUVE related protocols, available awards and opportunities, and the emergency response entomologist list? ESA MUVE is looking for volunteers to assist with one of our new Section Initiatives, the Grand MUVE Library. If you are interested in assisting with this effort or want to learn more, please contact [Alexis Kriete](#).

Get More Involved With the ECP Committee!

Interested in becoming more involved with the ECP Committee? ECP and Student-Transition members are welcome to contribute ideas for webinars (including development and hosting the webinar), ESA Annual Meeting symposia, workshops, and mini workshops, and topics and written pieces for the ECP-focused "Zyzyva" column in the *American Entomologist*. These are great ways to get more involved with the committee and ESA! If you have any questions or would like to contribute to any of these ideas, please contact the MUVE ECP representative [Karen Poh](#).

POLICY CORNER



By Dr. Sydney Crawley, Area Sales Manager, Rentokil Terminix

MUVE editorial content is generated by and for MUVE members of the ESA and does not necessarily reflect policy of the broader organization.

Rethinking Rodenticides: A Challenge for Urban Entomologists

The Problem. The way that rodents are managed in the United States could be changing—significantly. Currently, eleven rodenticides are undergoing registration review by the U.S. Environmental Protection Agency (EPA). Final mitigation decisions are expected during the 2024 fiscal year. [The Rodenticide Task Force](#) and [National Pest Management Association \(NPMA\)](#) are encouraging pest management professionals and academic experts to contact members of Congress in support of practical, fair, and scientifically-supported mitigation tactics for rodenticide registration

and use, as the newly proposed changes would severely limit our ability to safely and effectively manage rodents in the U.S.

So, What Happened? Due to anti-rodenticide activism and emerging research on non-target effects of rodenticides, in January 2021, California enforced new laws that restricted the use of second-generation anticoagulant rodenticides (SGARs). SGARs cause internal bleeding once consumed and are substantially more potent than the first-generation compounds—a lethal dose can be ingested in a single feeding. Included in this class of rodenticides are the compounds difenacoum, brodifacoum, bromadiolone, and difethialone. The long and short of it? Researchers and regulators are concerned that SGARs can induce secondary poisoning in non-target animals that scavenge on rodent carcasses.

Anti-rodenticide groups petitioned the Biden Administration to impose a national moratorium on SGARs in 2021. Activists referenced a University of Georgia study that concluded rodenticide residue was present in a significant number of eagles. Shortly after, anti-rodenticide billboards and grassroots advocacy efforts increased in the Pacific Northwest, Florida, and the East Coast.

However, it is not yet clear how rodenticide residues end up in predatory animals. Researchers are currently trying to unravel this interaction. According to Jim Fredericks of the NPMA: "Until we get to the bottom of that, it's really hard to mitigate the risk," and regulators are making "stabs in the dark" that create hurdles for PMPs trying to protect food, property and health. Unnecessary hurdles are not ideal, as **rodent management is critical for the protection of human health and food safety.**

What Is Going On Now? A proposed Interim Decision (PID) for rodenticides was published in November 2022 and gave stakeholders 75 days to weigh in on the proposed registration changes. Over 22,000 comments were submitted to the agency through Feb. 13, 2023. At that time, the comment period was closed. The EPA's proposals are described in the Proposed Interim Decision (PID) document for the Acute Rodenticides (bromethalin and cholecalciferol), Anticoagulant Rodenticides (chlorophacinone, diphacinone, warfarin, brodifacoum, bromadiolone, difenacoum, and difethialone), and for zinc phosphide.

Supporting documents were also released by the EPA: A use and benefits assessment for the eleven rodenticides and a draft effects determination for three endangered species and one critical habitat. All of these referenced documents can be found [here](#).

The agency is proposing several label changes that would impact rodenticide application and use, including:

- Reclassifying bulk rodenticides as restricted use pesticides (RUPs)
- The mandatory or advisory removal of rodent carcasses following rodenticide applications
- Canceling spot and broadcast applications of some rodenticides to turf, lawns, parks, golf courses, campsites and other recreational areas
- Requiring applicators to consult Bulletins Live! Two, an interactive map that identifies geographically specific pesticide use limitations, before applying rodenticide
- Requiring additional personal protective equipment when handling some rodenticide formulations

Comments are being posted to the Dockets for each rodenticide after they pass through an initial Agency review. The Agency has received a wealth of comments, and they plan to release an Interim Decision document in 2024. In addition, EPA expects to publish its final mitigation decisions on rodenticides sometime during its 2024 fiscal year, which runs October 2023 to September 2024.

Per the National Pest Management Association, "We are concerned that this timeline does not provide the agency with sufficient time to review stakeholder comments, engage in discussions and carefully reconsider their proposals. We need your help in reaching out to your representatives and senators to encourage EPA to take the time to work with registrants, product users, USDA and other federal agencies to ensure that mitigation measures for the rodenticides are reasonable, science-based and allow for all currently approved uses to continue."

How Does This Issue Relate to MUVE Members? Many urban entomologists are tasked with rodent mitigation. Thus, many pest management professionals in our Section will be impacted by these changes in potentially negative ways. For instance, if bulk rodenticide is reclassified as a restricted use pesticide (RUP), under federal law this change would require anyone applying rodenticide to be a certified applicator or be working under the supervision of a certified applicator. Many states, however, have stricter requirements for applying RUPs, especially when the work is done by non-certified applicators. Some states require supervising certified applicators to be readily available, or for them to be on site during application within visual contact of the applicator. This creates a barrier to using the products, as scheduling every application with a certified applicator would create scheduling conflicts and treatment backlog.

Only a few niche products used by the industry currently are classified as RUPs. These include fumigants, chemical frightening agents for bird control and rodent tracking powders. Due to the risk and training required, these products are not used often. When they do, they can arrange for a certified staff member to apply the product or be on-site or accessible. Rodent control, however, is an everyday endeavor, and daily rodent control operations will become much more onerous for companies according to industry experts and stakeholders.

In addition to classifying rodenticides as restricted-use products, EPA proposed two other changes: additional requirements for personal protective equipment (PPE) when handling rodenticides and removal of rodent carcasses.

Carcass removal requires technicians/applicators to return to an application site to search for and remove the bodies of any rodents that ate and died from rodenticide. Ideally, this would prevent scavengers from feeding on the carcasses. But, how often will an applicator be expected to search? How far away from treatment sites will they need to look? These questions remain unanswered and depending on the Agency's response, their mandates could significantly increase labor and cost of rodent services—not to mention the additional strain on an already stretched industry workforce.

Finally, these changes may make rodent control in rural areas completely unaffordable and inaccessible—leading to food contamination, and reduced health and human safety in these already pest-challenged areas.

How Can We Help? Please visit the [Rodenticide Task Force](#) landing page to learn more about this important pest management issue and look for ways to be involved. There are resources to help you initiate a conversation with your state representatives. The potential negative impact that these changes could have on the pest management industry cannot be overstated.

ASK CLARY FLY



By Lída Gonzalez, MUVE Representative to the ESA Student Affairs Committee

Hey there MUVers!

Clary Fly here, bringing you fresh news on ESA student activities.

I can't believe the summer is over and [Entomology 2023](#) is around the corner! Remember you have until September 11 to get the early bird registration rate. Hopefully, I don't have to remind you to renew your membership, but if you have not done it yet, you should wait no longer! Follow [this link](#) and renew it! If you are not sure whether you can attend the meeting in person, there are also virtual options: check out all the registration [deadlines and rates](#). Just a friendly reminder that you can [apply to volunteer](#); if you get at least 6 hours you become eligible for up to \$150 reimbursement from your registration fee. The duties go from presentation uploads, session moderation, working at the registration desk, or any other helping duties during the meeting. This is just another way to meet more ESA members!

On a side note, I have a student question submitted by an anonymous fly asking about the next steps after graduation, they wrote:

"Dear Clary Fly,

I am graduating in December 2023, and I am experiencing a bittersweet moment where I am relieved to finally finish my degree but also a bit nervous about job searching. Do you have any advice for recently graduating students to make themselves more marketable? What is the best way to prepare for job applications?

Thank you."

Well, my first piece of advice is to know the differences and nuances between job applications and sell yourself based on each application. When looking for a job, you will be applying to dozens of applications before getting your first interview, and often those applications differ on several aspects. This is important because, in most job applications, the hiring personnel will look to see that in your application you fit at least the minimum requirements, thus the easier you do it for them, the more favorable review. You want to ensure you are including similar (if not the same) words from the job posting to describe your skills, experience, abilities, and so on.

If you are fortunate enough to have more experience in parallel to the one that they are requesting in the position, do not include it if it is not relevant, especially when there are page limits for resume/CV submissions (usually a 2-page limit). For example, if the job position is asking for someone to be full-time involved in laboratory duties, having field experience might not be relevant, and will use valuable space in your documents. Instead, try detailing as much as possible your laboratory experience, demonstrating your ability to perform the listed duties.

When you don't have as much experience, you can play your cards well by writing a strong cover letter. Include additional non-professional experience that demonstrates your character will make a valuable impact in their company, or even write additional statements to support that you are an idoneous candidate for their position. Experience in other appointments, such as classroom laboratories, is also valuable to include when you don't have much experience, to demonstrate you have the knowledge and ability to do it if needed.

Lastly, I always recommend having one or two colleagues or mentors review your application documents. Sometimes advisors might not be available to read all your submissions, but having

friends and family that know you review your letters might also help obtain feedback and perspectives on your good qualities.

If you have any questions or comments you would like to submit in future newsletters, send a message to lidiag@email.sc.edu. If you are interested in learning more about the ESA student affairs committee news, you can follow us on Twitter for updates and news related to students in ESA!

That's all I have for today!

Clary Fly

OTHER ANNOUNCEMENTS

Participation Requests from MUVE Members

- Dr. Amy Murillo is conducting a [poultry mite survey](#). The lab at UC Riverside is looking for commercial producers (via extension folks or veterinarians) to provide pests of poultry. This nationwide survey is open to all.
- Dr. Caleb Hubbard is conducting a house fly survey. Please contact [Dr. Hubbard](#) if you have recently colonized or wild caught house flies.
- Ms. Katy Smith from University of Tennessee is looking for images of ticks or flies on animals. If you think you can provide any fly-infested or tick-infested images, please volunteer via this short [Google Form](#).

ESA Annual Meeting in National Harbor, MD (*Just Miles From Washington, DC*)

This year's [Entomology 2023 annual conference](#) will take place November 5-8, 2023 in National Harbor, MD at the Gaylord National Resort & Convention Center. The theme for Entomology 2023 is Insects and Influence: Advancing Entomology's Impact on People and Policy. The [early bird registration](#) deadline is September 11 and the deadline for [booking a hotel room](#) is October 6.

MUVE Artwork Design Contest

MUVE leadership is hosting a MUVE artwork design contest! We are seeking a variety of designs that represent our diverse disciplines and be sufficiently different from ESA's logo. The first-place winner will receive \$200 and the runner up will receive \$100. The winner's design will be used as an emblem to represent MUVE and used on MUVE handouts (and swag!) at the Annual Meeting. To participate in this contest, the design needs to fit the style and branding of ESA and its logo.

Contest criteria:

- Anyone, regardless of ESA membership status or section is eligible to participate.
- The design must be suitable for a variety of items (e.g., baseball caps, t-shirts, and tote bags).
- Limit the design to up to 5 colors: please limit to neutrals (e.g., white, black, gray) and the [ESA color palette](#).
- Use ESA's official font, Nunito Sans.

- Design must include the words "Medical, Urban, and Veterinary Entomology" or "MUVE" and "ESA"
- Design should incorporate topics relevant to the Section.
- Include a short 3-6 sentence description to explain the logo.

Entries are due to [Becky Trout Fryxell](#) by **September 15** at 12:00 p.m. ET.

ECP Career Webinar Series

Not really sure what you want to do? Join the ECP Committee and panelists as we discuss various careers in entomology! We will showcase the diversity of entomology careers, including those in academia (research/extension and teaching), federal government, industry, state/county government, and NGOs and nonprofits. Can't make one of the webinars? Recordings of the webinar will be uploaded to the ESA website for members to view after the webinar concludes. [Register and learn more!](#)



3rd International Conference of the Subterranean Termite

The 3rd International Conference of the Subterranean Termite will be held September 18-19, 2023 at the University of Hawai'i at Mānoa, Honolulu, HI. Abstracts are being accepted until July 15 and conference [registration](#) is open until August 15.

2023 P-IE Invasive Species Tour, September 12-14, 2023 in Orlando

From Lauren Diepenbrock, Assistant Professor of Entomology & Extension Specialist at the UF/IFAS Citrus Research and Education Center: "Dave Coyle and I are hosting the [2023 Invasive Species Tour](#) in Central Florida next month. We know that this tour has been promoted within P-IE initiative, but we would also like to encourage members from other Sections to participate.

As you are likely aware, Florida is ground zero for many invasive insects, including those that are important vectors of agricultural, horticultural, and medical importance. As such, our schedule includes a visit to a forest location to see laurel wilt, and potentially it's beetle vector, in action, a visit to the Citrus Research and Education Center to learn about citrus greening, a lethal pathogen of citrus that is vectored by Asian citrus psyllid, and the University of Central Florida campus to learn about invasive ants and their management in urban environments. Additionally, we will have presentations from the regulatory sector (Florida Department of Agriculture and Consumer Services and APHIS), researchers from both entomology and plant pathology working on laurel wilt citrus greening, as well as researchers working on mosquito vectored human pathogens and management of invasive weeds. The full agenda can be found [here](#)."

Society For Vector Ecology, September 17-21, 2023 in Charleston, SC

The Society for Vector Ecology (SOVE) will have its annual meeting September 17-21, 2023 in Charleston, South Carolina. [Registration](#) is open until September 5.

Tick Academy, Virtual October 11-12, 2023

The Tick IPM Working Group will host a virtual Tick Academy [webinar](#) October 11-12, 2023.

North American Black Fly Association Meeting and Taxonomic Short Course, February 6-9, 2024 in Harrisburg, PA

The 20th annual North American Black Fly Association ([NABFA Meeting](#)) will take place February 6-9, 2024 in Harrisburg, Pennsylvania. A two day taxonomic workshop will be led by Mr. Denny Keen, Ms. Carey LaMere, and Dr. Peter Adler from February 6-7, 2024.

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