

MUVE NEWSLETTER

January 2024

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<u>Dr. Kyle Jordan</u>, President

<u>Dr. Ary Faraji</u>, Vice President

<u>Dr. Alexander Ko</u>, Vice President-Elect

Dr. Anna Berry, Secretary

FROM THE PRESIDENT

I have gotten to know many of you over the last 20-some years through my involvement with ESA and the National Conference on Urban Entomology and I am excited to work with you and additional colleagues from the realm of Veterinary and Medical Entomology!



I grew up an entomologist, tirelessly exploring nature and taking every possible insect-related project in 4-H. I never imagined that I would be applying the skills and knowledge I gained during those years every day in my career. While I work for BASF in product development, a huge component of my professional life has always revolved around education. Insects inform us about every discipline and are universally relatable (who doesn't have an insect story?) — I believe that entomology is an amazing vehicle to educate others about almost anything. I have also dedicated time as chair of both ESA's Diversity, Equity, and Inclusion Committee and BASF's LGBTQ+ and Allies employee resource group because I believe entomology and the places where entomologists work should be welcoming to everyone with a passion for the field of entomology.

Besides continuing the amazing work that the MUVE section is already doing, we have two primary goals this year. The first is to expand our support for students to attend the annual meeting. ESA's DEI Committee established the Alate Award that specifically targets HBCUs and MSIs but MUVE wants to extend the reach to additional students who may not be part of an Entomology department that supports meeting attendance. MUVE would like to provide both monetary support so that a student can attend the meeting and mentoring support so that a student can make the meeting even more meaningful. We believe this goal can be achieved (at least in part) through our second goal.

<u>Dr. Sudip Gaire</u>, Treasurer

<u>Dr. Becky Trout-Fryxell,</u> Past President

<u>Dr. Erika Machtinger,</u> Governing Board Representative

The 2023 meeting at National Harbor was expensive. Really expensive. If you were there, you heard us describe the cutbacks we had to impose to avoid spending our entire (not an exaggeration) savings. This caused us to think about alternative funding to ensure MUVE can operate to its fullest potential. General donations will always be welcome, of course, but we thought it would be a much better idea to have donors fund specific endeavors – particularly MUVE events (receptions, mixers, etc.) and student scholarships and support for highlights speakers. These earmarked sponsorships would bear your name and MUVE would recognize you specifically as a benefactor. Please reach out to me if you or your organization are interested - we are working on 'marketing collateral' to provide interested parties with descriptions of opportunities. Donations are tax-deductible because we are a 501(c) 3 organization. If you or the company/organization you work for is interested in sponsoring a student (~\$2000-2500) or a MUVE event (\$1000-12000), please contact me.

ESA and MUVE are important components of many entomologists' experience and the MUVE officers want to make sure we continue to provide opportunities for networking, development, and socialization. Many MUVE members have organized symposia, presented posters and talks, joined a committee, nominated someone for/won an award, or become officers at the section or branch level. We will do our best to keep you apprised of these opportunities and their deadlines here in the newsletter but you can always check on them yourself – along with job opportunities – on the ESA website. As always, if you have suggestions on how we can better provide for you or the MUVE section, don't hesitate to reach out to a MUVE officer!

I look forward to working with you in 2024!

-Kyle

MUVE JOB OPPORTUNITIES

Visit the ESA Career Center to explore new job opportunities in your field. Some of the most recent MUVE job listings include:

- <u>Instructional Assistant Professor/Lecturer Urban Entomology</u>, University of Florida
- Entomologist/Field Supervisor, Bell Environmental

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.



Ulises Sanchez-Sandoval, Ph.D., was recently hired as a full-time research scientist at the New Mexico State University Veterinary Entomology Research Laboratory (VERL). Dr. Sanchez-Sandoval's research is highly focused on insecticidal evaluation of experimental products intended to be released for public use against numerous pests of veterinary importance. In his short time in this role, Dr. Sanchez-Sandoval has spearheaded and led efforts to evaluate multiple, novel insecticidal compounds in collaboration with leading pharmaceutical groups within all relevant regulatory guidelines and oversight. Dr. Sanchez-Sandoval's previous experience as a dairy veterinarian in

northern Mexico triggered his interest and passion for ensuring the safe and effective release of insecticides to help promote and sustain both the dairy and beef industries.



Morgan Wilson, MS, joined the Dodson Urban Pest Management Laboratory (DUPML) at Virginia Tech in 2019 as a research technician. A year later, she was accepted into the Entomology Ph.D. program at Virginia Tech. Her research is focused on evaluating effective control methodologies for eliminating bed bugs in low-income apartments and houses, which vary depending on population "infestation" level, clutter level of the environments, and structure of the home. One of Morgan's responsibilities is to provide extension outreach to low-income, elderly households and facilities, which are the most vulnerable to bed bug infestations. She provides training in bed bug management and

prevention and has co-authored bed bug action plans for in-home care, hospice care, and dialysis centers. Her prior experience as a nuisance wildlife removal technician primed her for a role in the pest management industry. As such she has developed expertise in urban pests, including rodents, bed bugs, cockroaches, and termites.



John Soghigian, Ph.D., is an Assistant Professor of Parasitology in the Faculty of Veterinary Medicine at the University of Calgary. He conducts research on the causes and consequences of mosquito diversity, focusing not only on major disease vectors, but also species of mosquitoes that typically receive less attention. Recently, he and several co-authors published an article titled "Phylogenomics reveals the history of host use in mosquitoes" in the journal Nature Communications. This research produced evidence that mosquitoes originated in the Jurassic earlier than previously thought. Moreover, Soghigian and co-authors provided evidence that mosquito host-use patterns coincide with

geological history in the form of major continental drift events and with patterns of vertebrate evolution.

NEWS BRIEFS



Blog Post Highlights from Entomology Today

- Honey Bees Unfazed by Vaporized Mosquito Repellent, Study Finds
- How One Entomologist is Working to Solve the Mysteries of Tick-Borne Red-Meat Allergy
- Parasite Evolution: Why One Entomologist Studies Mites That Hitchhike on Flies
- Sometimes, Mosquito Control Efforts Give Larvae More Room to Grow
- New Study Expands Knowledge of Kissing Bug Range in U.S.

Remember: For the latest breaking news items related to MUVE, please follow us on X.

MUVE STUDENT SPOTLIGHT



Katy V. Smith, a Ph.D. student in the Department of Entomology and Plant Pathology at the University of Tennessee, was selected to participate in the Foundation for Food and Agriculture Research (FFAR) Fellows Program. The 2023 cohort includes thirty fellows from colleges and universities across the country.

The FFAR Fellows Program is a three-year professional development program for doctoral students studying food and agriculture sciences. Through this program, students not only form valuable connections within their cohort, but receive opportunities to network with leaders in the food and agricultural industries.

Katy works in Becky Trout Fryxell's lab, where her research focuses on improving surveillance methods for flies and ticks in beef cattle production systems. She is currently developing a S.M.A.R.T. (sensors, monitoring, analysis, and reporting technology) surveillance platform for fly and tick detection on beef cattle using automated computer vision.

Katy is immensely thankful to have been selected as a FFAR Fellow, as this program has given her the opportunity to highlight veterinary entomology and her research, allowing her to communicate her science to a broader audience than she ever imagined. The FFAR Fellows Program is now accepting <u>applications</u> for the 2024-2027 cohort.

Read more about Katy and her participation in the FFAR Fellows Program <u>here</u>. Volunteer to <u>submit images</u> of ticks on animal hosts (any species) to assist with her research.

Follow her on Twitter/X: @katyvsmith Connect with her on LinkedIn

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.

ASK CLARY FLY



Hey there MUVErs!

Clary Fly here, with fresh updates for the students in ESA!

It's been a long time ago since I got to write to you guys (it was still hot outside) so I hope you didn't miss me too much. At least I got to see some of you recently at the Annual Meeting in National Harbor.

I had an awesome time this year, plenty of interesting talks and had a great time catching up with some familiar faces! I will say, it was great to see how successful the student debates were and I am very proud of all the students that presented: you guys did awesome! Students are an immense part of the annual meeting and it is important that you guys continue attending, so thank you all for presenting and sharing your awesome research.

First and foremost, if you have not (and are planning to) submit your paper or poster presentation for the <u>ESA Branch meetings</u> hurry up! The deadlines for <u>Eastern</u>, <u>Southeastern</u>, and <u>North Central</u> have already closed, but the <u>Pacific</u> and <u>Southwestern</u> Branch meeting submission deadlines are open through **January 22**. For those that will be attending, the registrations are now open and will have lower fares until February or March (look at the registration link for your Branch meeting). However, if you want to take advantage of the low-rate registration fee, remember to renew your ESA membership if you haven't done so for even more discount!

Moreover, this year the International Branch Virtual Symposium is revolving around three themes, one of which is Urban Entomology. You can consider attending this virtual meeting, which offers a more affordable option for undergraduate and graduate students (\$30 for poster and \$50 for paper) to present at an international conference. The paper and poster submission deadline is **February 15**, and the meeting will take place April 8-10, 2024. I strongly encourage any students that are interested in submitting to contact ESA International Branch for any questions as this would be a great opportunity to present your work if you haven't!

As usual, I wanted to remind you that keeping your <u>ESA membership</u> up to date is important for these and other opportunities. It allows you to have discounted rates for the annual and branch meetings, on top of the multiple <u>advantages</u> of being a member: including access to ESA journals, our <u>bookstore</u>, different webinars, and networking opportunities... Do not wait to get your membership right before you need it, it's best to have it all year-round!

Lastly, I wanted to remind you that I am available if you have any questions, and if you don't want to miss any information and stay up to date on ESA student opportunities, you can follow the Student Affairs Committee Twitter/X account.

Hopefully you read this newsletter frequently and already know that I am always open to address any questions you send, either in an anonymous or public format, and post it on the next MUVE newsletter. If you are interested in doing so, email your questions or comments, or share your story through lidiag@email.sc.edu.

All the best wishes,

Clary Fly

POLICY CORNER



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

Tax Changes Cause Concern for Scientific Innovation

By Meredith Spence Beaulieu, Ph.D., BCE NC State Class of 2020 ESA Science Policy Fellow and MUVE Science Policy Committee Representative

We hear a lot about appropriations and their ability to impact science through funding availability at agencies such as NSF, NIH, USDA, and others. But what about tax policy? This is something we think about much less in the context of scientific funding, yet has similar potential impact. Some scientists are learning this firsthand after changes to the federal tax code's Section 174 caused major tax spikes due to grant dollars being treated as income.

For more than 60 years – since the Internal Revenue Code's creation – Section 174 had enabled 100% of research and development expenses from federal grants to be deducted from taxation. This was seen as a way to drive innovation, as small businesses with limited funds could realize a tax

break up front, and put all of their grant money toward research. The 2017 Tax Cuts and Jobs Act changed this by requiring amortization of the tax benefit. The deduction must now be spread out over at least five years rather than realized upfront in the year that R&D funds are used.

In practice, this means that 90% of monies from federal grants are treated as taxable income in the first year of the grant, and grant funds cannot be used to pay the taxes. These changes went into effect in January 2022. The deadline to file 2022 taxes was in October of this year, so we are now beginning to see the effects of this policy. As reported in The News & Observer, Section 174's new requirement has already led multiple small businesses to file for bankruptcy, with many more expected to follow suit in future years if the changes are not rescinded.

Bills were introduced in both the Senate (S.866 – American Innovation and Jobs Act) and the House (H.R.2673 – American Innovation and R&D Competitiveness Act of 2023) in spring of this year that would eliminate the amortization requirement for research expenditures, restoring the ability to deduct expenses in the year funds are used. But progress on these bills has stalled. A letter expressing concerns about this policy, supported by more than 600 industry and university signatories, was sent to Congress in early November to urge action.

While this tax code change is not specific to MUVE or even to entomology, it has broad-reaching effects on the scientific enterprise, especially for startups and small businesses that have limited capital and are highly dependent on grants to conduct cutting-edge research. I encourage you to learn more about this issue and consider whether it is something that should be added to your advocacy efforts.



Looking for ways to get involved with MUVE or ESA generally? Always feel free to <u>contact MUVE</u> <u>President Kyle Jordan</u> with your interest.

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.

OTHER ANNOUNCEMENTS

Join the MUVE Mentorship Network!

The MUVE Mentorship Network is abour to start its third year and we are recruiting MUVE members interested in being mentors or mentees. This round of the program will kick off with an "Introduction to Mentorship" workshop in January 2024 followed by mentoring pod formation. The mentoring pods will run through November 2024. Participants will be expected to meet regularly with their pods and attend scheduled workshops. This is a great opportunity to network with other MUVE members and to learn and grow with your pods and with the whole Mentorship Network community. To sign up, please fill out the <u>participation form</u> by **January 12**. If you are interested in getting more information, please reach out to <u>Bethany McGregor</u>.

MUVE Members Invited to Become ESA Journals Peer Reviewers

The editors of the ESA Journals invite MUVE members of all backgrounds and experience levels to become peer reviewers.

By volunteerting as an ESA reviewer, MUVE members can improve their peer review skills, earn Web of Science (Publons) credit, and help curate and improve the latest science reported in the society's publications.

The ESA's 7 peer reviewed Journals publish reports on a wide range of insect science. *Environmental Entomology* publishes reports on the interation of insects with the biological, chemical, and physical aspects of their environment. *Annals of the Entomological Society of America* publishes research, extension, teaching, policy, and public outreach concerning insects and related arthropods. *Journal of Medical Entomology* covers all phases of medical entomology and medical acarology, including the systematics and biology of insects, acarines, and other arthropods of public health and veterinary significance.

None of these journals would be possible without the dedication of our expert reviewers, who evaluate the manuscripts submitted for publication. To become a peer reviewer, please email pubs@entsoc.org to express your interest. The Editorial Office will send you more information about how to create or update your ScholarOne account so that you can start receiving invitations to review.

To learn more about the review process see: Ethical Guidelines for Peer Reviewers



Public Health Entomology for All (PHEFA)

Do you want to engage in social justice work and science? Would you like to learn about Public Health Entomology as a profession and learn applied entomological strategies to prevent and control vector-borne diseases that are transmitted to people by mosquitoes, ticks, and fleas? Apply for an internship or fellowship through Public Health Entomology for All (PHEFA), an exciting new opportunity for current students or recent undergraduates of a Minority Serving Institution. Applications for the 2024 internships and fellowships are open until **February 15, 2024**.

Participation Requests from MUVE Members

- Dr. Amy Murillo is conducting a <u>poultry mite survey</u>. 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 <u>Dr. Hubbard</u> 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 <u>Google Form</u>.

MUVE EVENTS



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

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.

90th Annual American Mosquito Control Association Meeting

March 4-8, 2024, Dallas, Texas

The American Mosquito Control Association (AMCA) <u>annual meeting</u> will be held from March 4-8, 2024 in Dallas, Texas. Meeting <u>registration</u> is open and <u>hotel reservations</u> at the Sheraton Dallas Hotel are open until February 7, 2024.

19th Annual Arbovirus Surveillance and Mosquito Control Workshop

March 26-28, 2024, St. Augustine, Florida

The 19th annual Arbovirus Surveillance and Mosquito Control <u>workshop</u> will be held at the Anastasia Mosquito Control District in St. Augustine, Florida. Keynote speakers include Dr. J. Lyell Clarke and Dr. Roxanne Connelly from CDC/DVBD. Contact <u>Dr. Rudy Xue</u> for submission of a title of presentation for the program schedule. Deadline for submissions is January 10, 2024.

Biology of Vector-Borne Diseases Course

June 10-15, 2024, University of Idaho

University of Idaho's Institute for Health in the Human Ecosystem will host the <u>sixth annual Vector-Borne Diseases Course</u> in Moscow, Idaho. This six-day, in-person course provides accessible, condensed training and "knowledge networking" for advanced graduate students, postdoctoral fellows, faculty and professionals to ensure competency in basic biology, current trends and developments, and practical knowledge for U.S. and global vector-borne diseases of plants, animals, and humans. The <u>course application</u> deadline is March 15, 2024.

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