AMCA®
NEWSLETTER

WINTER 2025 | Vol 54 | Issue 1

91st Annual Meeting
San Juan, Puerto Rico
March 3–7, 2025

Upcoming Events

AMCA 91st Annual Meeting
March 3-7, 2025

View our event calendar.

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Next Issue Deadline: March 15, 2025

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On The Cover

Photo courtesy of the Puerto Rico Convention Center

Our mission is to enhance health and quality of life through the suppression of vector-transmitted diseases and the reduction of mosquitoes and other public health pests by providing leadership, information, collaboration, tools, and education.

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AMCA RESEARCH FUND

Mosquito control is science-based. Mosquito control professionals use observation of mosquito populations, evaluation of novel control technology and predictive modeling to determine the best way to manage mosquito populations and prevent pathogen transmission. Mosquito control has benefited from a long history of research within mosquito abatement agencies, at public and private universities, and at other qualified research institutions examining how to improve mosquito control to provide a better quality of life for the public.

2024 RESEARCH FUND AWARDEES

Bradley Willenberg, PhD., *"New Attractive Toxic Sugar Baits with Propylene Glycol as a Sugar Substitute and Toxicant in Capillary Alginate Gel Biomaterials"* **University of Central Florida**

CONTRIBUTIONS TO THE AMCARF ARE NOW BEING ACCEPTED!

The AMCA Research Fund is currently accepting contributions for future research on mosquito control and related topics. Contributions can be made online through the Research Fund webpage or by check payable to:

AMCA Research Fund
ATTN: Megan MacNee
1 Capitol Mall, Suite 800
Sacramento, CA 95814

AMCA WOULD LIKE TO THANK THE FOLLOWING CONTRIBUTORS

- ADAPCO
- *Anonymous Contribution*
- Canyon County MAD
- Contra Costa Mosquito and VCD
- Michigan MCA
- Sacramento-Yolo Mosquito and VCD
- Schools First Federal Credit Union
- Valent BioSciences

President's Message

Rui-De Xue, PhD

During winter, mosquito populations and mosquito-borne diseases have greatly reduced in many areas. AMCA and local associations held their annual meetings and workshops and provided different pieces of training/education. AMCA provided important virtual training and welcomed the new training and education committee chair Alexandra Chaskopoulou.

The new national communication campaign concept "Yesterday's Threat, Today's Solution" is partially funded by a CDC grant and contracted with the Media Cause company. AMCA worked with the company to flesh out a strategy and projects that will allow AMCA to have a strong launch program for the National Communications Strategy and continue to develop new content for it. Additionally, the marketing efforts will incorporate the communication strategy and the BMPs and training programs. Finally, AMCA will be creating a spinoff campaign focused specifically on Oropouche. Thank you to Daniel Markowski, Gary Goodman, and Megan MacNee for their efforts for the grant and media contract and thank you to all the board members' input and comments about the content multiple times.

AMCA signed the MOU with the European Mosquito Control Association (EMCA) for further collaboration in early December. I have been invited to and attended the EMCA's communication workshop for mosquito control and the WHO/TDR's communication workshop about SIT program development and operation.

AMCA's young professionals committee welcomes the new YP advisors Casey Crockett and Andrew Rivera on board. Thank you to Chloe Wang and Kyndall Braumuller for their hard work and contribution to the YP group in the past several years.

The AMCA Interim Board meeting was held in the Puerto Rico Vector Control Unit, on November 13-15, 2024. The Board members visited the Puerto Rico Vector Control Facility and the CDC/Dengue Branch. Also, the Board members visited/took a tour of the conference center's facility. Thank you and appreciation to the staff from the Puerto Rico Vector Control Unit and the CDC/Dengue Branch for their hospitality. The Wing Beats published a special Puerto Rico issue and provided information about their programs.

The 91st Annual Meeting will be held in San Juan, Puerto Rico, March 3-7, 2025. The program committee received and approved 22 symposiums. Puerto Rico is a territory of the U.S., and it is at the front of the U.S. ongoing battle to protect the public from invasive and expanding mosquito species and vector-borne disease threats. The full schedules for the annual meeting were published in the bi-weekly newsletters on December 12 & 31, 2024. The meeting content involves many innovative technologies and tools for mosquito and vector control. The meeting will have more participants this year, and it will be a successful meeting. Thank you to Isik Unlu, Herff Jones, Natalie Perry, Megan MacNee, and her team for their hard work in the planning and arrangement of the annual meeting. **Please note that AMCA will not be providing a printed program this year. Instead, you can create a personalized schedule online, which will sync directly with the app once it becomes available.**

Finally, your involvement, support, and help are always needed and appreciated because this is your professional/technical association. We do need to work together to protect our citizens from the possible threats of mosquito- and vector-borne disease. ■

Photo by Christian Grab on Unsplash

Technical Advisor Report

Daniel Markowski, PhD

I would like to enthusiastically invite everyone to AMCA's annual meeting in San Juan, in early March 2025. I'm sure many people reading this Newsletter have already booked their flights and made the appropriate reservations. Many others have certainly submitted abstracts for presentation. I imagine, on the other hand, there are still many members wondering if they should attend. It is, after all, a long flight! However, we have a meeting planned that is packed with opportunities to learn more about our profession, meet researchers and directors from around the world and expand your current program.

This year's Latin American symposium is bursting at the seams with important presentations regarding the latest surveillance and control options for *Aedes aegypti*. If resistance in your mosquito populations is a concern or learning how to integrate Sterile Insect Techniques into your community engagement plan; we've got you covered. Did you know there's an entire symposium dedicated to innovative technologies such as using NASA's Earth Science Applications to monitor vector habitats? If you're considering alternative aerial adulticide products, there's an entire symposium for you. We'll also be rolling out details and plans for utilizing AMCA's UAS program in the Drone Symposium. If you're considering adding UAS application technology to your program, I assure you... you don't want to miss this symposium!

For educators, our Annual Education Day is going to take place at Manuel Boada Elementary School, which is conveniently located just a 10–15-minute drive from the convention center. We will unveil a new National Strategy for mosquito control outreach! You definitely don't want to miss the fun events planned to roll out this campaign, along with being able to speak directly with the creative minds behind the concept design. I would also like to highlight a new International Symposium - Transforming Boundaries into Bridges: Lessons Learned from Asia and the Americas for Dengue Control. We have invited speakers from around the globe to present their experiences controlling one of the latest mosquito-borne threats to the continental states. With speakers from Bangladesh, Nepal, India, and Singapore, attendees will certainly walk away with a broad and deep understanding of dengue virus and its vector dynamics.

Above are just a few of the symposium highlights. With more presenters and symposia than in previous years; it truly is hard to highlight everything the meeting will have to offer. In fact there's so much to do, we have 2 mornings with sponsored breakfasts to ensure you're energized for the day. I encourage everyone to visit to annual meeting landing page to find the content that interests you and plan your days. If you haven't already, book your room and register today. This will be a meeting we won't soon forget. ■

Attention state, tribal, territorial, and local public employers of medical and public health entomologists!

We invite you to participate in our anonymous survey relating to hiring practices of medical and public health entomologists. Your insights will help us evaluate the CDC's Centers of Excellence in Vector-Borne Diseases and CDC's Regional Training and Evaluation Center's goal of training the next generation of public health entomologists to serve as experts in vector-borne diseases. It's a brief, 5 to10-minute maximum commitment with no private information required. For those who participate, if you are interested, you can choose to be entered into a raffle for a $50 VISA gift card. Share your valuable perspective today!

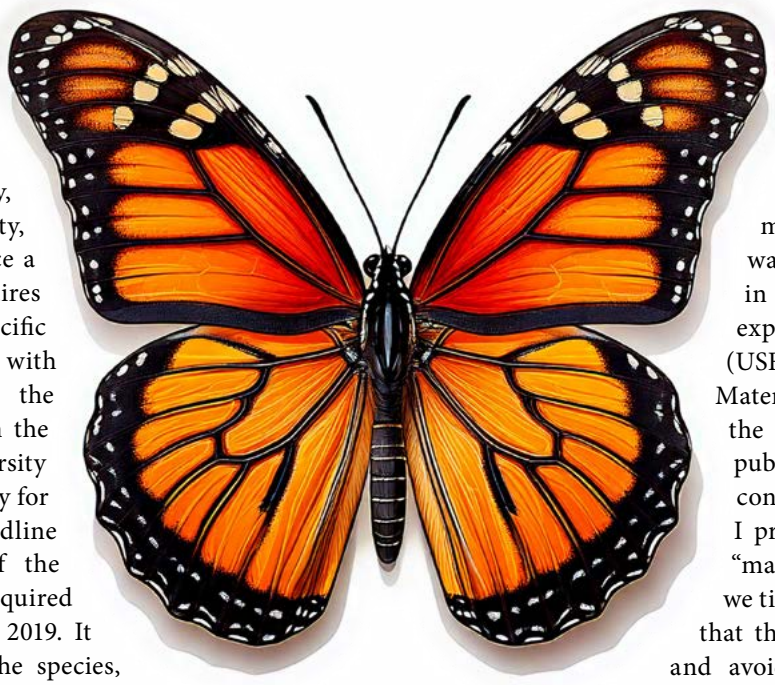
SCAN ME

Legislative & Regulatory Committee Update

Mark Clifton, PhD • Legislative & Regulatory Committee Chair

MONARCH BUTTERFLIES AND MOSQUITO CONTROL: WHAT YOU NEED TO KNOW

After a quiet couple of years on the endangered species front, December brought major news: the U.S. Fish and Wildlife Service (USFWS) proposed listing the Monarch Butterfly (*Danaus plexippus*) as a threatened species under the Endangered Species Act (ESA). This decision could significantly impact mosquito control practices nationwide. To the best of my knowledge, there has never been a listing of such a wide-ranging migratory species. The Monarch is found in nearly every single state within the United States. It is found in neighborhoods, parks, backyards, on the side of highways, in fields, it is simply everywhere. The monarch is found in all the places where mosquito control is conducted. In this newsletter update, I will do my best to break down what this listing means.



The first petition to list the Monarch Butterfly as a threatened species was filed in August 2014 by the Center for Biological Diversity, the Xerces Society, the Center for Food Safety, and Dr. Lincoln Brower. Once a petition is filed, the ESA requires the USFWS to follow a specific decision-making process with limited flexibility. In 2016, the USFWS faced a lawsuit from the Center for Biological Diversity and the Center for Food Safety for failing to meet its legal deadline for a decision. As part of the settlement, the agency was required to make a determination by 2019. It had three options: (1) list the species, (2) decline to list it, or (3) place it on the candidate list for future consideration. The USFWS chose the third option, deferring a final decision until 2024 while issuing a Species Status Assessment and monitoring population trends. Now, in 2024, with Monarch populations still in decline, the USFWS has released a proposed rule to the Federal Register to list the species as threatened under the ESA.

The major goals of the proposed rule are to: (1) achieve a significant increase in the availability of milkweed and nectar plants in monarch breeding and migratory areas; (2) protect and enhance overwintering habitat; (3) avoid and minimize impacts to monarchs and their habitat from insecticides and herbicides; and (4) maintain public support for the conservation of monarch butterflies. The proposal further defines the kinds of risk the service sees from insecticides and more explicitly vector control,

> *"[The] Use of insecticides in vector control, especially pyrethroids and organophosphates, may be significant in areas of the country where mosquitoes pose a public health threat or reach nuisance levels [...] Studies looking specifically at dose-response of monarchs to neonicotinoids, organophosphates, and pyrethroids have demonstrated monarch toxicity at product label application rates and field concentration levels".*

More concerningly for our public health mission, the USFWS outlined in supplemental materials that, "societal expectations for widespread use of mosquito control insecticides" was a "manageable" factor in understanding insecticide exposure to the Monarch (USFWS SSA Supplemental Materials, 2020). In other words, the USFWS seems to believe the public's expectations for mosquito control are "manageable"; which I presume to mean they want to "manage" expectations lower. If we tie this all together, it says to me that the USFWS considers reducing and avoiding exposure to Monarchs from mosquito control materials to be a significant plank in their protection strategy.

Many in the mosquito control field may wonder why their practices are under scrutiny, given the rarity of off-target impacts when best management practices are followed, and these members would be correct. Off-target impacts from ULV adult mosquito control on Monarchs (or any other pollinator really) are exceedingly rare when our best management practices are closely followed. But here is the catch, once a species is listed as threatened or endangered under the ESA, it really doesn't matter any more how it got to be threatened or endangered. These aren't Pottery Barn rules where, "you break it, you own it". These are Federal ESA rules where,

"someone else broke it and now we all own it".

To be more specific about what this listing could mean for you, it is necessary to explore how the ESA defines certain words. The ESA has a very special word for impacting a threatened or endangered species: "Take". "Take" does not merely mean to "kill". "Take" means harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting. I don't know who would shoot a Monarch but be on notice- shooting monarchs is expressly prohibited! Unfortunately, that is not all "take" means. The word "harm" was further elucidated to also mean modifying or degrading a species' habitat where the modification impairs the species' essential behavioral patterns, such as feeding, breeding, or sheltering. Finally, the word "harass" has also been further defined to mean any intentional or negligent act that could significantly disrupt normal behaviors. The definition of "take" therefore extends some level of protection to the Milkweed as well as to the behaviors of the Monarch. It's not just the butterfly itself that is protected. The milkweed and/or the Monarch does not have to be in a park or preserve or exist on critical habitat for the ESA to apply because of the words "harm" and "harass". That Monarch on the side of I-294 in Chicago? Yeah, it's protected. Mercifully, the USFWS is proposing as part of the rule that, "vehicle strikes" should be an exception from "take". Probably a smart move to avoid creating liability for nearly every single American that drives.

Now of course this is all too big for the USFWS or even the entire Federal government to enforce. The original writers of the ESA knew that enforcement of the rules around a species listing wouldn't be possible through the executive branch alone, so instead the ESA allows "any person" to bring a civil suit over violations of the ESA. And before you get the idea that "any person" means an actual person, the ESA defines this term differently. "Any person" means an individual, a corporation, a partnership, a trust, any other private entity, an association, any officer, employee, agent, department or instrumentality of the Federal Government, any state municipality, or political subdivision of a state, and finally, any other entity subject to the jurisdiction of the United States. So "any person" means anything. Did I mention that the prevailing party in lawsuits brought under the ESA can be awarded attorney's fees from the losing party? All the incentives are in place for some serious legal headaches moving forward.

The ESA allows for the designation of "Critical Habitat" to protect a listed species and this proposed rule does not disappoint in this regard. The service is proposing that 4,395 acres in Alameda, Marin, Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura Counties, in California be identified as critical habitat. The designation of critical habitat is really its own complicated endeavor which I won't elaborate on too much here other than to say federal agencies and any other units of government with a federal "nexus" will now have to consult with USFWS with regards to any project that may take place within critical habitat. Having a nexus generally means you receive federal funding and/or authorization. Everyone else, including private landowners within the Critical Habitat, still fall under the definitions of "take", "harm", and "harass".

What does this all mean for your average mosquito control program? In my opinion, if this proposed rule becomes final without an exception for ULV mosquito control, then it means that the doors to the courthouse are now open for "any person" who would like to sue your agency. It won't matter that you didn't kill a monarch and have never killed a monarch; the definitions of take, harassment, and harm will extend the protection to things like sheltering, reproduction, and feeding or even just disrupting normal behavior patterns. Think of this as akin to the liability imposed by the NPDES process only worse. Since this species is migratory and found across the lower 48, the potential for impacts to mosquito control programs through civil litigation are immense.

There aren't many ways out of this ESA box. Fortunately, the USFWS seems to have deliberately left a door open in the proposal. To be more specific the USFWS is requesting comment on this point:

> *Whether we should include an exception for the use of pesticides and, if so, what measures are reasonable, feasible, and adequate to reduce or offset pesticide exposure to monarchs from agricultural and non-agricultural uses (e.g., rangeland, rights-of-way, forestry, commercial areas, and mosquito control), including measures for specific classes of pesticides (e.g., herbicides, insecticides), pesticide uses, and application methods;*

To me, this says the service would like to find a way to offer a blanket exemption to mosquito control. Without a blanket exception or incidental take permit, mosquito control programs across the U.S. face significant liability. Collaborating with USFWS now can help shape a final rule that balances public health needs with Monarch conservation. However, I suspect they are looking for additional solutions and mitigations that can be implemented in a final rule. Comments are due by March 12, 2025. Our esteemed colleague and AMCA TA will be working on this between now and the deadline. It is likely he will reach out to our membership for additional mitigation methods that people may be employing that are protective of this species. He may ask our members what mitigations methods they may be willing to adopt to protect this species. Most importantly, it is highly likely that he will ask members to submit their own comments to the Federal Register outlining how ULV adult mosquito control is vital for protecting human health in your local context.

I think this is an all-hands-on-deck moment for our members and we need to be paying close attention. Our technical advisor is going to need input, comments, and other support from the membership as well as from other local associations. This one has the potential to affect everyone and so there is no hiding from it. If you are in the continental US and use ULV adult mosquito control methods, then this listing will open you up to liability without a blanket exception as part of the final rule or an Incidental Take Permit (let's hope we don't have to go there). ■

AMCA Young Professionals (YPs)

The AMCA Young Professionals (YPs) Committee has served as a standing committee within AMCA for nearly two years! While this change doesn't alter the fantastic events we host at the annual meeting and throughout the year, it enhances our ability to integrate more fully within AMCA, including the launch of a new AMCA YPs website. We're also welcoming new committee members and advisors as our current advisors prepare to step down in 2025. We're excited to spotlight both emerging and established regional Young/New Professionals groups across the United States and the incredible YPs' members. As we ring in the New Year, we look forward to another fantastic year of collaboration and seeing many of you at the next annual meeting in Puerto Rico!

New AMCA YPs website: The YPs website has been transferred and integrated into the official AMCA website. You can now access all YPs-related information under the "Member Services" tab on the AMCA website. Within this section, you'll find a dedicated "Young Professionals" tab containing all updated YPs materials and links.

New Advisors and committee members: We have new YPs advisors and committee members! Thank you to Drs. Chloe Wang and Kyndall Braumuller for their dedicated four years of service. Meet dynamic and talented individuals who are excited to plan all the YPs events at the annual AMCA meeting and throughout the year.

Spotlights: YPs' members: The AMCA YPs Group is full of interesting and talented young professionals from all over the country. Everyone from Academia, Abatement Districts, Military, Industry, etc., is working on something great to protect public health. We want to highlight YPs from across the mosquito control industry and their work, experiences, and to share advice to fellow YPs. For the opportunity to be featured or to nominate a YPs member, please click here.

Highlights: Regional Young/New Professionals groups throughout the United States (emerging and established). Read more: AMCA YPs 2024 December Newsletter.

> *"Most YPs will become future leaders and activists in the field of mosquito control, leveraging the training and experience they gain.*
>
> *- Dr. Rui-De Xue (AMCA President)"*

Established Young Professionals (YPs) groups

- **Texas Mosquito Control Association YPs (TMCA YPs):** The TMCA YP group welcomes individuals in their first eight years of the mosquito control industry, serving as a recruitment and orientation hub. A new WhatsApp Community, featuring multiple group chats, helps members stay connected between meetings. Available chats include The *Buzz* for general discussions and *Coevolution Corner* for collaboration and mentorship.
- **Northeast Young Professionals (NEYPs):** A joint YP group shared between the Northeastern Mosquito Control Association (NMCA) and the New Jersey Mosquito Control Association (NJMCA). Any young professionals involved in mosquito or vector control are encouraged to join: https://forms.gle/PMsmc7YaGKEW52VcA
- **Florida Mosquito Control Association YPs (FMCA YPs):** Initiated by Tarolyn Frisbie in 2022, this group is for FMCA members with eight or fewer years in the industry. It offers close-knit networking opportunities and guidance for navigating mosquito control careers. The first YP Luncheon will take place during the 2025 DODD Short Courses in January.

New Professionals group under development

Mosquito and Vector Control Association of California (MVCAC): Currently, there is no official YPs group in California. However, efforts are underway to bring together new professionals to establish a New Professionals Group and a standing committee MVCAC.

AMCA YPs Events: The AMCA YPs will have several events at the AMCA Annual Meeting in Puerto Rico. We look forward to seeing you there. For details, check the Full Schedule.

- **Pre-conference workshop:** March 3, sponsored by Central Life Sciences.
- **YPs dinner:** March 4, sponsored by Clarke.
- **Panel discussion and career roundtable symposium:** March 5.
- **YPs social event:** Sponsored by Valent, following the symposium.
- **Exhibit hall booth**
  - AMCA YPs art auction and 50/50 raffle tickets for fundraising. (If you are interested in donating an art piece to support the YPs please fill out the form here)

AMCA YPs Industry Shadowing Program (ISP): We are pleased to announce that the AMCA YPs ISP has been renewed for the 2025 Annual Meeting in San Juan, Puerto Rico! If you are a YP with five years or fewer in the mosquito or vector control field or a student who is interested in an industry shadow opportunity or need assistance with travel, please check out the Industry Shadow Program here. Applications are due by midnight of Jan 19, 2025.

Activities beyond annual meetings: The AMCA YPs offer webinars, newsletters, instar and mentor programs, and more. Stay connected via our Linktree for social media links, newsletters, and website access. To get involved, complete the AMCA YPs Signup form. ■

North Central Director Report

Carl W. Doud, PhD • North Central Director

This fall I attended regional meetings in Ohio and Illinois. Both were high quality conferences with a great lineup of speakers. Early next year I will attend the Michigan Mosquito Control Association meeting.

Below are updates from around the region. Thanks to Kristina Lopez (Illinois Mosquito & Vector Control Association), Lee Green (Indiana Vector Control Association), Michigan Mosquito Control Association, Zach Holbert-Watson (Ohio Mosquito & Vector Control Association) and Alex Carlson (Metropolitan Mosquito Control District).

ILLINOIS

- The IMVCA held its annual meeting November 21-22nd, 2024. Thank you to all of the sponsors and the IMVCA executive board! The student competition included ten students that all did an amazing job. Congratulations to Ali Ross from UW-Madison who won first place.
- The IMVCA is also welcoming two members to the executive board: Ana Erkapic from IDPH was elected as the new IMVCA Treasurer and Mark Clifton from NSMAD was elected as Vice President.
- IMVCA will be resurrecting our 'Springfield Days' advocacy day on March 26, 2025 - save the date!

INDIANA

- The Indiana Department of Health has launched a new Indiana Tick-borne Disease Surveillance Dashboard this year and continues to improve the Indiana Mosquito-borne Activity Dashboard.
- Blacklegged ticks have now been sampled in every county in Indiana and the presence of two new ticks of importance in the state have been noted in the past few years; Gulf Coast ticks and Asian Longhorned ticks.
- The 2025 IVCA annual conference will be held in Madison, IN on March 17-18. Also planned is a 2-day mosquito course on Jan. 22-23rd and a 1-day tick course on Dec. 18th in Indianapolis.

MICHIGAN

- Michigan State University and MMCA partnered in 2024 to carry out a study measuring the efficacy of common mosquito larvicides against *Culex* spp. Products evaluated were Altosid® WSP, Vectolex® FG, Natular™ DT and Sumilarv® 0.5G. Data are being analyzed and will be reported at the annual meeting in February 2025.
- Bay County Mosquito Control is reporting reduced populations of the Cattail Mosquito, *Coquillettidia perturbans*, following aerial larviciding of portions of the Lake Huron shoreline. These areas have large stretches of invasive phragmites and offer abundant larval habitat for the mosquito.

OHIO

- Like many parts of the US, Ohio experienced record-breaking drought in 2024, with some areas seeing nearly 100-year lows in total precipitation this past summer. But life finds a way, and our mosquitoes seem to find every opportunity to multiply, leading to a productive surveillance season characterized by the continued expansion of the range and abundance of *Aedes albopictus*, an ongoing trend in the state for the past decade. On the bright side, the disease burden on Ohioans was lower than average, with a fewer than typical number of human cases of both West Nile Virus (13) and La Crosse Virus (4) reported.

"In an exciting development, the Ohio Department of Health rolled out a new multiplex test and is now able to detect not only West Nile Virus and La Crosse Virus, but also Eastern Equine Encephalitis Virus, St. Louis Encephalitis Virus, and Jamestown Canyon Virus in our mosquito pools."

- In an exciting development, the Ohio Department of Health rolled out a new multiplex test and is now able to detect not only West Nile Virus and La Crosse Virus, but also Eastern Equine Encephalitis Virus, St. Louis Encephalitis Virus, and Jamestown Canyon Virus in our mosquito pools. This is hugely impactful since most mosquito programs in Ohio do not have the capacity to do their own arboviral testing, and additional disease surveillance will provide valuable

information to those programs and enhance our ability to prevent mosquito-borne disease in our residents.

- We have also made incredible strides in tick surveillance this year. The number of human cases of Lyme Disease reported in Ohio has skyrocketed recently and continues to trend upward, but efforts like Central Ohio Tick Blitz and Ohio Department of Health's partnership with The Ohio State University's Parasite and Pathogen Ecology lab for tick pathogen testing provide much-needed resources for vector control programs to address this growing threat.

MINNESOTA (METROPOLITAN MOSQUITO CONTROL DISTRICT)

- In the Twin Cities, the drought from previous summers was long in the rearview mirror and 2024 brought above average precipitation for May, June, and July. Despite the rain, our traditionally most common summer nuisance species - *Aedes vexans* - did not appear in significant numbers as adults until late in the summer. Culex species numbers, however, were at an all-time high. Also notable, two species, *Cx. salinarius* and *Ae. dorsalis*, were unusually prevalent in surveillance collections. Cattail Mosquito (*Cq. perturbans*) numbers have been depressed due to multiple years of drought, but MMCD larval surveillance data indicates they may have made a full recovery after this year's heavy rain and emerge in high numbers next year.

"Despite the rain, our traditionally most common summer nuisance species - *Aedes vexans* - did not appear in significant numbers as adults until late in the summer."

- The District's UAS larval treatment program continues to expand with one additional drone implemented this year bringing the total to three in use during the 2024 season. Acres treated by drone increased from 1,650 in 2023 to 3,839 2024. MMCD has purchased an additional five drones with plans to expand the UAS program to every county in the District in 2025. ■

Thank You to our 2025 Sustaining Members

Renew your membership today for the 2024 year!

GOVERNMENT

- Adams County MCD
- Alameda County Mosquito Abatement District
- Amelia Island Mosquito Control
- Anastasia Mosquito Control District
- Animas Mosquito Control District
- Atlantic County Office of Mosquito Control
- Beach Mosquito Control District
- Beaufort County Mosquito Control
- Benton County Mosquito Control District
- Broward County Mosquito Control
- Butte County MVCD
- Canyon County Mosquito Abatement District
- Cape Cod Mosquito Control
- Citrus County Mosquito Control District
- Clackamas County Vector Control District
- Clark County Mosquito Control District
- Coachella Valley Mosquito & Vector Control District
- Collier Mosquito Control District
- Compton Creek Mosquito Abatement District
- Consolidated Mosquito Abatement District
- Contra Costa Mosquito & Vector Control District
- Copper Valley Community Services District
- Davis County Mosquito Abatement District
- Delano Mosquito Abatement District
- Delaware Mosquito Control Section
- Delta Mosquito & Vector Control District
- East Baton Rouge Parish Mosquito Abatement and Rodent Control
- East Flagler Mosquito Control District
- East Side Mosquito Abatement District
- Florida Keys Mosquito Control District
- Florida Mosquito Control Association
- Fresno Westside MAD
- Georgia Mosquito Control Association
- Greater Los Angeles County Vector Control District
- Hudson Regional Health Commission
- Hunterdon County Mosquito & Vector Control
- Iberia Parish MAD
- Indian River Mosquito Control District
- Jackson County Vector Control District
- Klamath Vector Control District
- Lake County Vector Control District
- Lee County Mosquito Control District
- Louisiana Mosquito Control Association
- Macon Mosquito Abatement District
- Magna Mosquito Abatement
- Manatee County MCD
- Marin/Sonoma Mosquito & Vector Control District
- Merced County Mosquito Abatement District
- Metropolitan Mosquito Control District
- Michigan Mosquito Control Association
- Mid-Atlantic MCA
- Mosquito & Vector Control Association of California
- Multnomah County Vector Control
- MVMD of Santa Barbara County
- New Jersey MCA
- NJ State Mosquito Control Coordination
- North Carolina Mosquito and Vector Control Association
- North Morrow Vector Control District
- North Shore Mosquito Abatement District
- Northeastern Mosquito Control Association
- Northwest MAD
- Northwest Mosquito & Vector Control Association
- Northwest Mosquito & Vector Control District
- Orange County Mosquito and Vector Control District
- Osceola County Mosquito Control
- Otter Creek Watershed Insect Control District
- Pasco County Mosquito Control District
- Pennsylvania Vector Control Association
- Pine Grove MAD
- Placer Mosquito & Vector Control District
- Sacramento-Yolo Mosquito and Vector Control District
- Saginaw County Mosquito Abatement Commission
- Salt Lake City Mosquito Abatement District
- San Gabriel Valley Mosquito and Vector Control District
- San Joaquin County MVCD
- San Mateo County MVCD
- Santa Clara County Vector Control District
- Shasta Mosquito & Vector Control District
- South Carolina MCA
- South Salt Lake Valley MAD
- South Walton County Mosquito Control District
- St. Lucie County Mosquito Control District
- Sutter-Yuba MVCD
- Tangipahoa Mosquito Abatement District
- Teton County Weed & Pest District
- Toledo Area Sanitary District
- Utah Mosquito Abatement Association
- Virginia Mosquito Control Association
- Warren County Mosquito Commission
- West Central Mosquito & Vector Control Association
- West Umatilla Mosquito Control District

CORPORATE

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