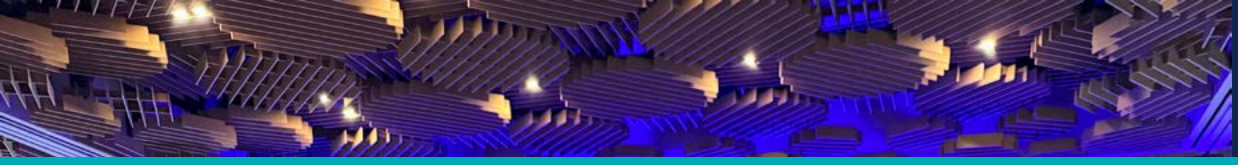

AMCA®

NEWSLETTER

Spring 2026 | Vol 55 | Issue 2

BOARD OF DIRECTORS

President
Isik Unlu, PhD
iunlu@stpmad.org

President-Elect
Joel Buettner
joelb@placermosquito.org

Vice President
Broox Boze, PhD
bboze@vdci.net

Past President
Herff Jones
hjones@iberiagov.net

Treasurer
Gary Goodman
gwgoodman@fightthebite.net

Industry Director
Samer Elkashef
selkashef@central.com

International Director
Griffith Lizárraga
glizarraga@clarke.com

North Atlantic Director
Priscilla Matton
brismosqpc@comcast.net

Mid-Atlantic Director
Michael Doyle
michael.doyle@dhhs.nc.gov

South Atlantic Director
Robert Cartner
rcartner@bcgov.net

North Pacific Director
Angela Beehler
angela@mosquitocontrol.org

West Central Director
Scott Bradshaw
tooelevalleymad@gmail.com

South Central Director
Colby Colona
colby@tangimosquito.org

North Central Director
Carl Doud
cdoud@co.midland.mi.us

South Pacific Director
Peter Bonkrude
pbonkude@msmosquito.org

Upcoming Events

AMCA 2026 Washington Conference
Alexandria, VA
May 12-13, 2026

AMCA 2027 Annual Meeting
St. Louis, MO
March 1-5, 2027

View our event calendar.

Committee Chairs

Annual Meeting
Isik Unlu, PhD
iunlu@stpmad.org

Archives
Scott Crans
scott.crans@dep.nj.gov

Bylaws

Finance
Gary Goodman
gwgoodman@fightthebite.net

Legislative
Keira Lucas
klucas@cmcd.org

Regulatory
Priscilla Matton
brismosqpc@comcast.net

Member Education
Dr. Eva Buckner
eva.buckner@ufl.edu

Membership
Isik Unlu, PhD
iunlu@stpmad.org

Nominating, Awards
Herff Jones
hjones@iberiagov.net

Public Relations

Publications
Dr. Whitney Qualls
wqualls@amcdfl.org

Science & Technology
Dr. Ed Norris
edmund.norris@usda.gov

JAMCA Editorial Board
Dr. Michelle Brown
mbrown@wvmvcd.org

Community & Member Engagement
Constance Darrisaw
cjdarris@gmail.com

Young Professionals Advisors
Dr. Casey Crockett
ab73@cdc.gov

Andrew Rivera
arivera@clarke.com

Editor Information

AMCA Newsletter Editor
Patrick Irwin, PhD
Entomologist/Assistant Director
Northwest Mosquito Abatement District
1500 Hicks Rd. • Rolling Meadows, IL 60008
847-537-2306
pirwin@nwmadil.com

Send Articles to:
amca@mosquito.org

Next Issue Deadline: June 15, 2026

Stay Connected on Social Media

@AMCATweets

On The Cover

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.

Table of Contents

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.

2025 RESEARCH FUND AWARDEE

Norah Saarman, *"Efficient, low-cost, identification of Culex mosquito vectors of West Nile Virus using computervision based AI tools"* **Utah State University.**

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

Dr. Isik Unlu

Are we ready for the 2026 peak mosquito season? I don't know what surprises 2026 have in store for us. Chikungunya? Oropuche? Rocio Encephalitis? I was shocked by the extent of local Dengue transmission in Europe in 2025; there were 35 confirmed cases, including 29 in France, 4 in Italy, and 2 in Madeira. And yes, these cases were driven by one of my favorite mosquitoes, *Aedes albopictus*. If you think there were too many Dengue cases in Europe in 2025, let me tell you about chikungunya. Europe experienced a record-breaking number of local chikungunya cases in 2025, with France and Italy leading. France reported over 788 cases, while Italy reported 384 by late 2025. Watch out, Northeast: just because there are no *Aedes aegypti* in your area doesn't mean there won't be any local dengue cases in 2026. In the U.S., we experienced another active year for West Nile Virus. CDC reported approximately 2,000 cases last year, confirming a major outbreak year. CDC also reported 42% increase in cases, with a 35% increase in neuroinvasive cases. What in the world is a 203% increase in LA Crosse, with a 194% increase in neuroinvasive cases? I have always had a special interest in La Crosse because of my dear advisor, Dr. Michael Perich, who passed away days after I started my PhD program. He wanted my PhD work to focus on La Crosse, knowing that it would be a growing problem even in Louisiana, where it is not considered endemic.

Is AMCA ready for the 2026 peak mosquito season? I think we are READY as we can be. Look at all the triumphs of the Legislative and Regulatory Committee, Keira Lucas updated me on. To do what is needed on a day-to-day basis to protect public health, the AMCA Legislative and Regulatory Committee works tirelessly. I encourage everyone to consider attending AMCA Washington Days and show their support. The AMCA Legislative and Regulatory Committee is celebrating a series of meaningful wins that strengthen mosquito control programs nationwide. In a challenging federal budget environment in which the CDC experienced significant overall funding reductions, critical public health resources were preserved, including maintained funding for Epide-

Photo by Photo by Dwight Ikitan on pexels.com

miology and Laboratory Capacity (ELC) Grants. The U.S. House passed the PERMIT Act last December, including the Reducing Regulatory Burdens Act intact, marking a major step toward eliminating the costly and duplicative Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit requirement that has long complicated control operations and hindered timely public health responses. Momentum continued in March 2026, when the House Agriculture Committee advanced the Farm, Food, and National Security Act of 2026 (the Farm Bill), which addresses similar NPDES concerns and reinforces pesticide preemption protections essential for maintaining effective mosquito-control tools. Together, these achievements highlight the power of coordinated advocacy and the continued importance of protecting the tools mosquito control professionals rely on to safeguard public health. Before changing the topic, Dr. Cadwalader, Director of Strategic Planning and Policy at ESA, shared recent updates on policies related to vector control with me. I have been attending the Vector-borne Diseases Network meetings for almost a decade, and she always shares great information and hosts great speakers. She shared the following updates with me, which I believe will be beneficial for AMCA membership: As of March 18, 11 of 12 appropriations bills funding the government for fiscal year (FY) 2026, which runs out on September 30, have been signed into law. The exception is the Homeland Security bill, which was extended through a continuing resolution until February 13, so the agency is currently experiencing a shutdown, except for employees deemed essential. Meanwhile, all other agencies funded under those 11 bills that have passed are open and operating.

> **" Watch out, Northeast: just because there are no *Aedes aegypti* in your area doesn't mean there won't be any local dengue cases in 2026 "**

Last spring, the FY 2026 budget request proposed deep cuts to most research funding agencies, including a 54% cut to the Centers for Disease Control and Prevention. Through the hard work of AMCA and many other organizations in DC, the scientific community made the case to Congress not to enact the reductions. Consequently, Congress provided $9.2 billion for the CDC; while this was a $19.1 million cut in FY 2025, the Division of Vector-Borne Diseases received a $1 million boost, bringing its total to $91.6 million. The FY 2027 budget request is expected sometime soon, and draconian cuts to research are expected to be proposed. The other major achievement for the vector management community over the past year was the introduction of H.R.4348/S.2398 - Kay Hagan Tick Reauthorization Act, with bipartisan support in the House and Senate. It has not yet passed either chamber, and more champions are needed, so we encourage you to reach out to your senators and representatives if they aren't already cosponsors and encourage them to support this bill and its passage.

I am also excited about the results from the AMCA's Oropouche Evaluation Projects. A CDC grant funds this multi-project program and aims to evaluate control strategies for *Culicoides* biting midges, based on our technical advisor's reports. Thank you, Dr. Markowski. Larval control strategies seem to be the most promising approach. Adult control using truck-mounted ULV sprayers has limitations in delivery. I cannot wait to read more detailed information once all the research is published.

I hope you enjoy reading Wing Beats, AMCA's international trade journal. I used to enjoy it very much. Now I cannot wait to see the upcoming issues, and I know this is related to my dear mentor, Prof. Gaugler, who serves as Associate Editor. Wing Beats is a great resource and platform for us to share knowledge and continues to be very interesting under Dennis Moore's leadership. Wing Beats depends on your manuscripts to highlight your good work and to share with our international vector control community. Submit your manuscripts to Editor-in-Chief Dennis Moore (dm-trinity@outlook.com).

As we move into the peak biting season, I wish to thank each of you for your sustained dedication and expertise during a challenging time. Protecting public health is not easy. It demands long days conducting larviciding, late-night adulticide missions, weekends dedicated to public outreach, and an unwavering commitment to protecting our communities. Our primary motivation is knowing that our efforts make a difference in the lives of the communities we serve. I hope you have a safe and successful season. I encourage everyone to stay engaged by attending AMCA Washington Days, sharing your knowledge and perspective at regional or state meetings, and welcoming innovation as we meet the challenges throughout the year. Together, we will continue to keep the public safe from vector-borne diseases. ■

Technical Advisor Report

Daniel Markowski, PhD

As we leave Portland energized and ready to take on a new season, it's essential to remember that we have one more important meeting in Washington, D.C. in May. As governmental officials, many AMCA members have questions about how to effectively advocate for mosquito control while remaining mindful of the distinctions between advocacy and lobbying. Advocacy generally involves raising awareness of issues affecting public health and communicating the importance of mosquito and vector control programs to policymakers and the public. Lobbying, by contrast, typically involves urging legislators to support or oppose specific legislation. Understanding the difference enables mosquito control professionals to responsibly advocate for science-based policies that protect public health while remaining compliant with local rules and regulations governing public employees.

While much of AMCA's advocacy occurs at the national level, particularly while attending our Washington Conference in mid-May, this winter I have been reminded that state-level legislative advocacy is just as important. State legislatures frequently introduce bills that directly affect mosquito abatement districts, pesticide use, program independence, and operational access for surveillance and control activities. In many cases, these bills emerge quickly and require rapid responses from local programs and professionals who understand the real-world implications of mosquito control policies.

A recent example occurred in Idaho during discussions surrounding several proposed bills, including House Bills 554 and 747. These proposals raised concerns about how mosquito abatement districts could operate and whether property access or other operational authorities could be restricted. The situation in Idaho required coordination among local mosquito districts, state partners, and AMCA leadership to analyze the legislation, develop talking points, and communicate the potential impacts on public health programs. In the case of HB 747, local districts also worked with other local state associations and partners to prepare testimony, coordinate outreach, and encourage stakeholders to contact legislators about the bill's potential consequences for mosquito abatement operations.

These efforts illustrate several key lessons about effective advocacy at the state level. First, timely communication and coordination are essential. When legislation moves quickly through committee hearings and floor readings, mosquito control professionals must be ready to share accurate information about how policies affect operational programs. Second, coalition building matters. In Idaho, we explored partnerships with related county associations and other stakeholders who could also be affected by the legislation, reinforcing that mosquito control is not only a vector control issue but also a broader public health and community infrastructure concern.

Third, these experiences reinforce the value of having clear messaging and educational materials ready before legislative issues arise. Talking points, fact sheets, and data about mosquito-borne disease risks help policymakers understand why mosquito control programs require operational flexibility and scientific decision-making. Keep in mind that many of the most effective arguments focus on simple truths, such as mosquitoes do not respect property lines or political boundaries, and communities that vote to establish mosquito abatement districts expect those districts to operate effectively to protect public health.

Ultimately, strong state advocacy strengthens AMCA's national advocacy efforts. When mosquito control professionals build relationships with state legislators, explain the science behind their programs, and demonstrate the value of vector control to communities; they create informed policymakers who are more likely to support evidence-based public health policies at every level of government. Whether engaging with state legislators, participating in AMCA national advocacy campaigns, or simply educating community leaders about mosquito-borne disease risks, every member has a responsibility to be an advocate for our industry and the public health mission we serve. ■

Lessons from Idaho: 4 Tips for State Legislative Advocacy

Recent legislative discussions in Idaho highlighted how quickly state policy proposals can affect mosquito control operations. The experience provided several useful reminders for programs across the country about how to respond when legislation emerges.

1. **Engage Early and Monitor Legislation** Bills often move quickly through state committees and floor readings. Monitoring legislative activity and engaging early allows us to identify potential concerns before policies advance too far in the legislative process.
2. **Coordinate with Local and State Partners** Strong responses require collaboration. In Idaho, mosquito districts worked with their state association, county officials, and other stakeholders to develop a unified message about how proposed legislation could affect mosquito abatement programs and public health protections.
3. **Provide Clear, Practical Information** Legislators benefit from straightforward explanations of how mosquito control programs operate. Simple facts and local examples help illustrate why our programs are necessary.
4. **Build Relationships Before a Crisis** The most effective advocacy often comes from existing relationships with policymakers. Programs that regularly educate legislators about mosquito surveillance, control operations, and disease prevention are better positioned to communicate effectively when legislative issues arise.

Photo by Ruvim Miksanskiy on pexels.com

North Pacific Regional Update

Angela Beehler • North Pacific Director

Changing Communities, Changing Conversations: Communication and Board Training Matters

Across the North Pacific Region, communities are changing. Over the past several decades, areas that were once dominated by agriculture and rural land use have experienced significant population growth and urban expansion. New neighborhoods are being built where farmland once stood. Irrigation channels are now bordered by subdivisions. Wetlands and riparian corridors that have long produced mosquitoes are now adjacent to trails, parks, and residential developments. For mosquito control programs, these shifts have brought new challenges. Not just operational ones, but also communication and governance challenges.

Historically, residents in the Pacific Northwest had strong ties to agriculture or natural resource industries. These communities had firsthand experience with land management, irrigation systems, and the realities of living alongside insects and wildlife. Today, many of the fastest-growing communities in the region are attracting residents from outside the area. New residents are coming from urban environments where mosquito control programs operate differently or may not exist at all.

As a result, mosquito control agencies increasingly find themselves answering questions such as "Why are mosquito control programs necessary in this region? Are pesticides regulated properly and applied safely? What environmental safeguards are in place? And why can't mosquitoes simply be 'left alone' or managed naturally?" I'm not going to get into the specifics of all the issues programs have run into in the last year, but a few things have become clear, and I would like to help find solutions. Conversations with the public require clear communication about integrated mosquito management, public health risks, and the regulatory framework that governs mosquito control operations. Mosquito control programs are highly professionalized, science-based operations. However, the effectiveness of our programs increasingly depends on the ability to communicate our work to groups that may be unfamiliar with mosquito control.

Communications training can help programs: explain mosquito control operations and public health benefits, address misinformation about pesticides and environmental impacts, respond effectively to media inquiries or social media discussions, and build public trust during mosquito-borne disease detections. Clear communication ensures that residents understand both the public health mission and the environmental stewardship that guides modern mosquito control programs. The Yesterdays Threats, Todays Solutions Campaign, found at https://solutions.mosquito.org/, is a terrific resource, and I know I can use it to create the messaging we need here in the Northwest.

To take it a step further, board members play a critical role in policy oversight, budgeting, and public engagement. Providing training resources for board members, particularly those newly appointed or elected, can help them better understand the science, regulations, and operational realities of mosquito control programs. Yet, if trustees are not attending the AMCA Annual Meeting or other regional meetings with specific trustee sessions, where can they receive this training? Some of the areas I hope to expand on as Regional Director are communication workshops at regional and state meetings, orientation resources for newly appointed board members, and outreach toolkits that districts can use to speak to legislators. Lofty goals, but luckily, AMCA has a resource center where I can place tools that members can benefit from. Plus, our brilliant and credible Technical Advisor, Dan Markowski, lives in the region and has no choice but to help me if he wants to continue to enjoy summer evenings on his patio.

Mosquito control in the North Pacific region is no longer limited to rural landscapes. It sits at the intersection of growing cities and tourist attractions. As communities evolve, so must the tools mosquito control professionals use to engage with them. By investing in communication training and board education, the mosquito control community can ensure that programs remain effective, transparent, and responsive to the communities they serve. If you have talks or ideas for speakers who can help provide training, or you want more education on the subject, join us in Penticton, British Columbia, Canada, for the Northwest Mosquito and Vector Control Association Fall Meeting on October 20-21, 2026. The Northwest has some of the most beautiful destinations, and our meetings are always an adventure. This year, we will be at the Penticton Lakeside Resort and Conference Centre, so grab your passports. Peter DeChant has recently come out of retirement to be our new Executive Director, and he's doing an incredible job. Matt Hutchinson, from Baker Valley Vector Control District in Oregon, is our Program Chair and is accepting presentations at bvvcd@thegeo.net. I hope to see you there, and I wish you all a wonderful, invasive Aedes-free season. ■

North Central Director Report

Carl W. Doud, PhD • North Central Director

The 2025 mosquito season was significant for West Nile virus (WNV) throughout the North Central Region. Lyme disease is seeing steady increases as well. These and other topics are highlighted for 2025 and plans for the 2026 season are included for Ohio, Minnesota, Indiana, Michigan, and Illinois.

> **"Tick-borne diseases also intensified, with Lyme disease cases surpassing 2,600 reported to the Ohio Department of Health in 2025 — a new record that positions the state to exceed the previous year's high."**

OHIO

Ohio experienced a significant escalation in West Nile virus (WNV) activity in 2025, with a surge in positive mosquito pools and high infection rates among mosquito populations. Additionally, La Crosse virus (LACV) cases rose sharply, totaling 52 human confirmed cases.

Tick-borne diseases also intensified, with Lyme disease cases surpassing 2,600 reported to the Ohio Department of Health in 2025 - a new record that positions the state to exceed the previous year's high. This trend has prompted expanded tick surveillance, enhanced public education, and proactive measures as Ohio nears "high incidence" classification for Lyme disease.

MINNESOTA (METROPOLITAN MOSQUITO CONTROL DISTRICT)

Minnesota reported the third highest number of human infections of West Nile virus in the nation in 2025. The Twin Cities metro area recorded an unprecedented 47 human cases, far exceeding the prior high of 28. Contributing factors included elevated populations of *Culex tarsalis* - the primary WNV vector - and early, high infection rates in mosquito pools. MMCD responded with intensified surveillance in high-risk zones, targeted larviciding and adulticiding, and broadened public outreach through media engagements.

A concerning detection involved invasive *Aedes aegypti* (and potentially *Ae. albopictus*) at a local zoo and conservatory. These species are not adapted to Minnesota's winters but can persist in protected indoor environments such as greenhouses. Extensive monitoring and control efforts over nearly two months yielded no further detections, suggesting successful eradication. Surveillance will resume in 2026 to confirm absence.

Mid-summer also brought a resurgence of cattail mosquitoes (*Coquillettidia perturbans*), ending four years of below-average July activity. Predictions based on 2024's excessive rainfall forecasted high emergence (~88 per trap), but targeted treatments by MMCD staff helped limit actual counts to ~41 per trap—still the highest since 2020. These events illustrate the value of predictive modeling and adaptive management.

INDIANA

Indiana mirrored the Midwest's active WNV season, with sustained high infection rates in Culex populations from mid-July through season's end. This led to 38 human and 31 equine WNV cases. LACV activity was elevated, with four human cases - a high number for the state. Eastern equine encephalitis (EEE) remained minimal, with only one equine case reported.

> **"Minnesota reported the third highest number of human infections of West Nile virus in the nation in 2025."**

The Indiana Vector Control Association had its 50th annual meeting March 15-17, 2026, at Fair Oaks Farms. More details are available at www.indianavector.org.

MICHIGAN

Michigan's county-level mosquito control programs reported strong 2025 accomplishments and ambitious 2026 preparations, reflecting innovation and a focus on technology integration.

Saginaw County noted its first sampling of *Aedes aegypti* in 2025. A single female was captured and no further detections or evidence of breeding were observed.

Operational upgrades in Saginaw County included opening a new facility, initiating drone (UAS) use for habitat monitoring, and acquiring a treatment drone. They partnered with the county health department to establish local arbovirus testing and conducted a coordinated aerial Bti application during managed flooding of a game area. For 2026, goals include expanding UAS for larval treatments and remote sensing, leveraging the new lab, celebrating 50 years of operations, building an aerial hangar, and pursuing university internships.

Bay County advanced drone surveillance training (including Part 107 licensing) and refined its ESRI-based FieldSeeker Core system, incorporating Survey123 for citizen requests and maintenance data.

Tuscola County aims in 2026 to increase field staff, implement new tablets, transition a key position to full-time, develop resident notifications, boost public education, and replace aging equipment while preparing for budget approval.

Midland County focused on integrating FieldSeeker with existing GIS tools, automating weather data entry, creating outreach videos, analyzing historic records, updating the website, organizing files, planning aerial programs, and enhancing training. Staff transitions include welcoming a new Operations Planner.

Michigan programs expressed appreciation for the Michigan Mosquito Control Association (MMCA), noting its 40th anniversary conference in February 2026.

ILLINOIS

Illinois saw heightened WNV activity in 2025 due to hot, dry summer conditions, resulting in 150 human cases - more than double the 69 from 2024. Statewide, nearly 4,000 positive mosquito pools were identified, with infection rates in some areas rivaling or exceeding the 2012 major outbreak.

The Illinois Mosquito and Vector Control Association (IMVCA) held a successful 2025 annual meeting with over 100 attendees and 20+ speakers. The student competition featured 12 participants, with top honors to Lauren Johnson (1st), Joseph Spina (2nd), Riley Perry (3rd), and Becky Cloud (4th).

Overall, the North Central Region's 2025 season demonstrated resilience against elevated arboviral threats, successful containment of invasives, and forward momentum in technology and education. As programs gear up for 2026, collaboration through state associations and the AMCA remains vital to sustaining effective, science-based mosquito control. ■

Dr. David F. Hoel: A Career in Service to Country, Public Health, and Lee County Mosquito Control

Aaron Lloyd and James Dunford

Dr. David F. Hoel's path in mosquito control and public health entomology has blended field work and research around the world, along with a steady commitment to mentoring the next generation of those interested in medical entomology. Dr. Hoel set out to be an entomologist in academia in 1982, completing a B.S. in Entomology at Texas A&M University, followed by an M.S. in Medical Entomology at Texas A&M, and a Ph.D. in Entomology and Nematology at the University of Florida. He also later became a Board-Certified Entomologist in Medical/Veterinary Entomology through the Entomological Society of America, bolstering an already strong academic background in the field.

Dr. Hoel near the Zika Forest, Uganda

CDR David Hoel in Navy service dress blue uniform

CAPT [ret] Hoel's career was shaped by over three decades of military service as a Navy medical entomologist, where he tackled vector-borne disease threats in some of the world's most austere environments. He served as Head of the Medical Entomology Information Department at the Navy Disease Vector Ecology and Control Center in Alameda, CA, Group Entomologist with the 2nd Medical Battalion at Camp Lejeune, NC and Head of the Entomology Department at Navy Environmental and Preventive Medicine Unit 6 in Pearl Harbor, HI. As Head of the Vector Biology Research Unit at Naval Medical Research Unit 3 in Cairo, Egypt he led overseas research on sand fly and mosquito biology and control, while also serving on institutional review and animal use committees. His military decorations, including the Defense Meritorious Service Medal and multiple Meritorious Service Medals, reflect the operational value of that work (Fig. 1).

A defining chapter of Dr. Hoel's Naval career was his role in the President's Malaria Initiative (PMI) at the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. As a CDC research entomologist and PMI entomology country consultant in Uganda, Nigeria, and Liberia, he provided technical guidance on insecticide resistance testing, indoor residual spray and insecticide treated net strategies, and vector surveillance, often working side-by-side with regional scientific experts (Figs. 2 and 3). He was considered a "diplomatic envoy" for integrated vector management, someone who could translate complex entomology into practical tools for front-line malaria control. His field work extended to countries such as Egypt, Kenya, Ghana, and Pakistan, where he supported outbreak investigations and operational trials for mosquito and sand fly control.

LCMCD staff picture at Buckingham Field, Lehigh Acres, FL

During his Naval career Dr. Hoel has also played a key bridging role between military entomology, USDA, and the civilian mosquito control community. As the Navy Research Liaison Officer to USDA-ARS's Center for Medical, Agricultural, and Veterinary Entomology in Gainesville, FL, he helped design and evaluate mosquito traps, lures, and residual insecticides, pushing promising ideas toward real-world application. His research interests, including mosquito bionomics, trap modification and attractants, insecticide resistance, and mosquito control technologies, are reflected in a long list of publications in journals such as the Journal of the American Mosquito Control Association, Journal of Medical Entomology, Malaria Journal, and American Journal of Tropical Medicine and Hygiene. He has also contributed multiple articles to Wing Beats, highlighting topics such as new public health insecticides and the evolution of Navy entomology.

Teaching and mentorship run throughout Dr. Hoel's career and the memories of those who have worked with him. Early on, he taught basic entomology at Broward Community College and later became an Assistant Professor at the Uniformed Services University of the Health Sciences, where he instructed future military physicians and preventive medicine officers. He has delivered a wide range of courses and lectures from mosquito identification and operational entomology, to chemical warfare protection and personal protection against vectors to Marines, sailors, and international partners. Several current leaders in vector control point to Dr. Hoel as a mentor who took a genuine interest in mentoring junior colleagues and military officers, well before "young professional" programs were formalized.

Dr. Hoel collecting mosquito larvae

Most recently, as Executive Director of the Lee County Mosquito Control District (LCMCD) in Florida, Dr. Hoel has steered one of the world's premier civilian mosquito control programs, setting a global standard for innovation through its integration of advanced operational techniques, sophisticated aerial capabilities, and influential leadership across the vector control community. Under his leadership, LCMCD has continued to serve as both a local public health asset and a global resource, openly sharing lessons learned with agencies around the world (Fig. 4). Across all stages of his career, building units from the ground up, strengthening international collaborations, and mentoring the next generation of mosquito control personnel, Dr. Hoel has exemplified the blend of scientific rigor, operational sense, and service-minded leadership that defines the best of mosquito control and public health entomology.

From a personal perspective, Dr. Hoel always offered his time and expertise to help foster our interests in the sciences, leading us on a path to ultimately protect people from vector-borne illnesses. As he retires from LCMCD this year, Dr. Hoel closes this chapter of his career much as he has lived it: with programs strengthened, colleagues empowered, and cultivating future leaders in mosquito control and public health. For the mosquito control community, his retirement is less an ending than a passing of the torch, as the people and programs he has influenced carry his legacy of curiosity, service, and quiet professionalism into the public health work that still lies ahead. ■

Legislative and Regulatory Committees Update

Keira Lucas, PhD • Legislative Committee Chair
Priscilla Matton, MS • Regulatory Committee Chair

The AMCA Legislative and Regulatory Committee has been actively advancing priorities that strengthen mosquito control and protect public health across the country. And this year, we have some major wins to celebrate. Below are several highlights from this quarter.

A WIN FOR PUBLIC HEALTH FUNDING

The Fiscal Year (FY) 2026 Labor, Health and Human Services, Education, and Related Agencies Appropriations bill, which funds the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH), included significant cuts to the CDC's overall budget. *Despite the challenging federal funding environment and significant cuts seen in FY 26, support for the CDC's Epidemiology and Laboratory Capacity (ELC) Grants was sustained, representing a victory for our industry.*

Maintaining ELC funding ensures that mosquito control and public health agencies across the country can continue monitoring and responding to vector-borne disease threats. Given the current federal funding landscape, protecting this investment is a major win for AMCA and the communities we serve.

Because the appropriations timeline was shortened this year, most congressional portals for FY 2027 funding requests have already closed. However, there is still an opportunity to support AMCA's appropriations priorities by sending letters through the AMCA Advocacy Action Center.

To ensure preparedness against current and emerging vector-borne disease threats, AMCA is requesting:

- **Maintenance of the current $40 million funding level** for the CDC's ELC grant program
- **An additional $10 million investment** to support surveillance improvements, data modernization, and enhanced information sharing.

A key component of this modernization effort is VectorSurv, a web-based data management and analysis platform used by vector control and public health agencies nationwide. VectorSurv strengthens our nation's ability to track, predict, and respond to vector-borne disease risks.

As vector-borne disease threats continue to evolve, sustained federal investment in ELC funding and increased funding for modern surveillance tools and coordinated data systems remain essential to protecting our communities.

THE PERMIT ACT PASSES THE HOUSE

Another major milestone: the Promoting Efficient Review for Modern Infrastructure Today (PERMIT) Act (H.R. 3898) passed the U.S. House of Representatives on December 11, 2025 by a vote of 221–205.

For AMCA members, the most significant element of this legislation is the inclusion of the Reducing Regulatory Burdens Act of 2025 (H.R. 3824), which addresses a long-standing priority for AMCA.

This provision clarifies congressional intent under both the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Water Pollution Control Act, addressing unnecessary duplication in the regulation of pesticide applications in and around navigable waters.

House passage of the PERMIT Act with the Reducing Regulatory Burdens Act intact represents a significant win for AMCA and your advocacy played an important role. With the House vote complete, the bill now moves to the Senate, where continued advocacy will be critical.

THE FARM BILL ADVANCES

We've also seen momentum with the Farm, Food, and National Security Act (the 2026 Farm Bill) advancing out of the House Agriculture Committee with strong bipartisan support, passing by a vote of 34–17.

This legislation includes important language that would codify the longstanding federal–state cooperative framework under FIFRA, reaffirming the role of states as the primary regulators of pesticide sale and use in coordination with the Environmental Protection Agency (EPA).

This provision reinforces the collaborative regulatory system that mosquito control programs rely on and represents another important win for AMCA and public health mosquito control efforts nationwide.

JOIN US IN WASHINGTON

And now, we ask all AMCA members to keep this momentum going! AMCA members are encouraged to join us for the 2026 Washington Conference, taking place May 12–13, 2026, in Washington, D.C to continue advocating for our profession.

This annual event provides an opportunity for mosquito control professionals to meet directly with federal lawmakers and advo-

cate for the policies and resources that support our work on the ground. Conference information—including registration, hotel details, travel stipends, and guidance on scheduling meetings with your legislators—is available at: www.mosquito.org/washington-conference

Travel stipends are still available, and we especially encourage participation from members in states with legislators serving on key committees.

An informational call will be held April 21 at 11:00 AM PST, with additional details to follow as the conference approaches.

Your voice matters. Together, our advocacy is making a real difference, and these recent wins show just how powerful our collective efforts can be.

Thank You to our 2026 Sustaining Members

Renew your membership today for the 2026 year!

DISTRICTS

- Adams County MCD
- Alameda County Mosquito Abatement District
- Amelia Island Mosquito Control
- Anastasia Mosquito Control District
- Animas Mosquito Control District
- Atlantic County Mosquito Control
- Beach Mosquito Control District
- Beaufort County Mosquito Control
- Benton County Mosquito Control District
- Box Elder Mosquito Abatement District
- Broward County Mosquito Control
- Butte County MVCD
- Canyon County Mosquito Abatement District
- Cape Cod Mosquito Control
- Citrus County Mosquito Control District
- City of New Orleans Mosquito, Termite and Rodent Control Board
- City of Lubbock Vector Control
- Clackamas County Vector Control District
- Clark County MCD
- Collier Mosquito Control District
- Compton Creek MAD
- Consolidated Mosquito Abatement District
- Contra Costa Mosquito & Vector Control District
- Copper Valley Community Services District
- Delano Mosquito Abatement District
- Delaware Mosquito Control Section
- Delta MVCD
- EBRP Mosquito & Rodent Control (East Baton Rouge Parish)
- East Flagler Mosquito Control District
- East Side MAD
- Florida Keys Mosquito Control District
- Fresno Westside MAD
- Greater Los Angeles County Vector Control District
- Hudson Regional Health Commission
- 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
- 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
- Monmouth County Mosquito Control Division
- MVMD of Santa Barbara County
- New Jersey State Mosquito Control Commission
- North Morrow Vector Control District
- North Shore Mosquito Abatement District
- Northwest MAD
- Northwest Mosquito & Vector Control District
- Orange County Mosquito and Vector Control District
- Otter Creek Watershed Insect Control District
- Pasco County Mosquito Control District
- 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 Mosquito and Vector Control District
- Shasta Mosquito & Vector Control District
- 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
- Warren County Mosquito Commission
- West Umatilla Mosquito Control District

REGIONAL/STATE ASSOCIATIONS

- Florida Mosquito Control Association
- Georgia Mosquito Control Association
- Idaho Mosquito and Vector Control Association
- Louisiana Mosquito Control Association
- Michigan Mosquito Control Association
- Mid-Atlantic MCA
- Mosquito & Vector Control Association of California
- New Jersey MCA
- North Carolina Mosquito and Vector Control Association
- Northeastern MCA
- Northwest Mosquito & Vector Control Association
- Oregon Mosquito & Vector Control Association
- Pennsylvania Vector Control Association
- South Carolina MCA
- Texas Mosquito Control Association
- Utah MCA
- Virginia Mosquito Control Association
- West Central Mosquito & Vector Control Association

INDUSTRY

- AMGUARD Environmental Technologies
- Azelis A&ES
- Clarke
- Helicopter Services Inc
- Leading Edge
- London Foggers, Inc
- MGK Insect Control Solutions
- Rad Source Technologies, Inc.
- Superior-Angran LLC
- Valent BioSciences LLC
- Vectech, Inc.
- Vector Disease Control International (VDCI)
- Veseris