



LeMaringouin



March 2026

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Message from the President



Greeting, my fellow LMCA Members,

Before we officially turn the page to 2026, I want to take a moment to recognize some of the people who make this association what it is. First, to our 2025 President and my predecessor, Emily Boothe. Emily, thank you for your dedication, leadership and positive energy. Taking on the task of updating our Bylaws, Policy Documents, and Code of Ethics was a huge responsibility, and we appreciate you strengthening our foundation.

I also want to extend a sincere thank you to our presenters at our annual conference especially our first-time speakers. Sharing your knowledge and new technology helps all our districts improve its day-to-day operations. To all the LMCA

committees: the work you do behind the scenes is imperative to the sustainability of this association. And to our members: your eagerness to show up and participate in our events is exactly what we need to keep the LMCA thriving.

Looking Ahead to 2026

As we gear up for another mosquito season, we are all busy recalibrating equipment, stocking the labs, and planning for the unpredictability of nature. In all these preparations, let's remember our scientific purpose. There's a common misconception that mosquito control is "just a truck spraying chemical," but that is far from the truth. We are mosquito professionals. I encourage everyone to take advantage of the three major educational opportunities available this year to advance your expertise:

- **The LMCA Spring Workshop and Annual Conference** for those needing recertification.
- **The Mosquito Academy** for an in-depth review of mosquito biology and control.

Engaging in these programs ensures that our work remains strictly aligned with Integrated Mosquito Management best practices.

In closing, remember that the public does not always see the complexity of our work. It's up to us to use our voice to educate our communities, demonstrating that we are professionally trained experts implementing science-based solutions for the health of all Louisianans. Mosquito control is a vital public health pillar that relies on every one of us. We need our **researchers** for the latest technology, our **vendors** for effective materials, our **"boots on the ground" technicians** treating larvae in drainage systems, our **biologists** preparing samples for viral testing, our **directors** who stand firm to protect their districts, every role is essential. Lastly, to the **LMCA Board and Officers** who serve as the backbone of this association: we are one cohesive unit with a shared mission.

Thank you for your time, your hard work, and your dedication. I look forward to seeing you all soon.

Sincerely,
C. Renee Pellerin
President, LMCA

LMCA Board of Directors 2026



Renee Pellerin
President



Dr. Sarah Michaels
Vice President



Herff Jones
Secretary/Treasurer



Dr. Aaron Ashbrook



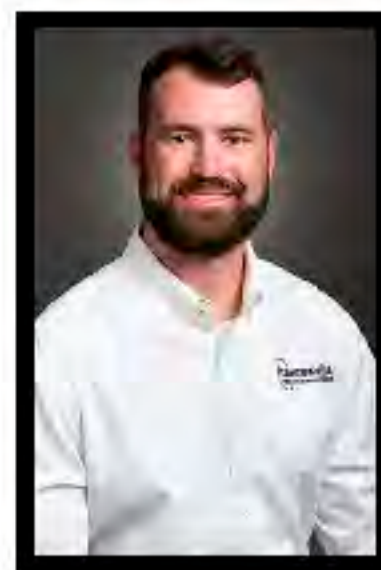
Emily Boothe



Jennifer Bushnell



Heath Deese



Alex Fortenberry



Josh Foulon



Josh Hightower



Michael Joseph



Kyle Moppert



Michelle Traweek-Tidwell



Announcements/Committee Updates

Education Committee Report

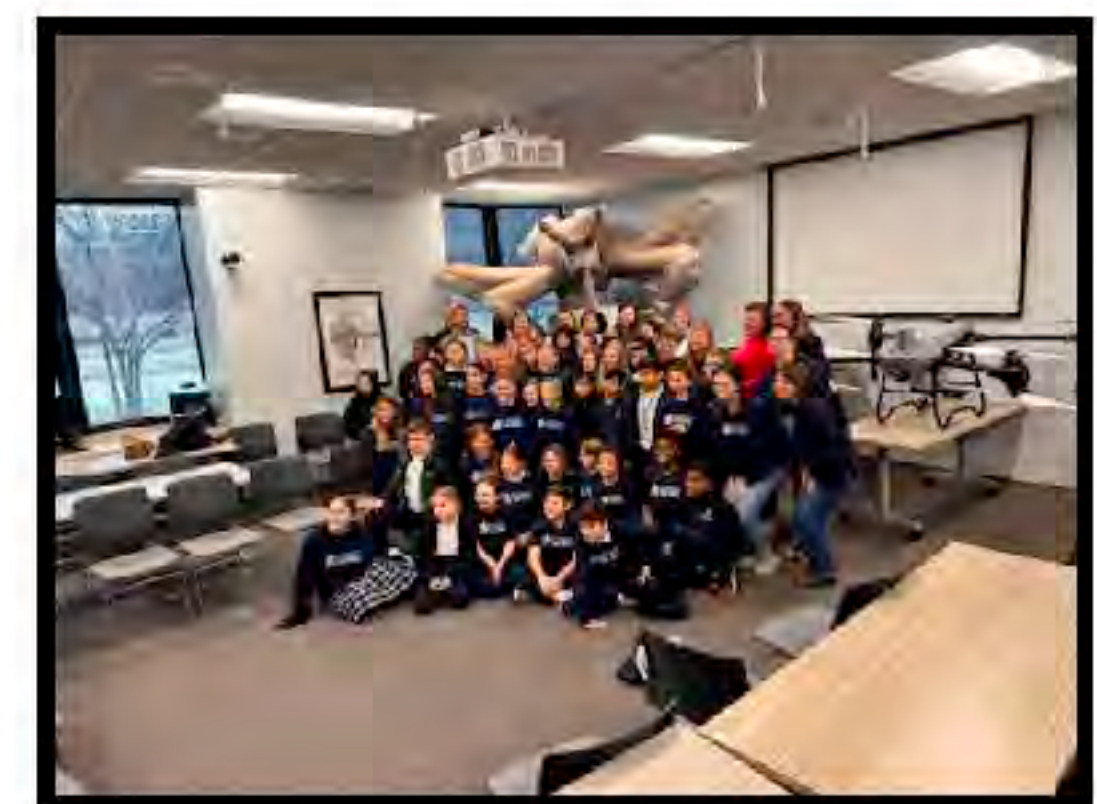
The LMCA Education Committee and East Baton Rouge Mosquito Abatement and Rodent Control (EBRMARC) co-hosted the annual LMCA Education Day on December 1st and 2nd. Education Day is part of the LMCA Annual Meeting and introduces students from local schools to mosquito biology, surveillance, and control methods. Members of the Education Committee, EBRMARC employees, and additional LMCA member volunteers staffed stations designed to provide students with instructional, hands-on experience. Students learned about general mosquito biology, habitats, life cycle, morphology, behavior, medical importance, and equipment and techniques used to control mosquitoes. The committee's goal is to stimulate students' interest in science through an interactive experience and empower them with an understanding of how residents and mosquito abatement districts work together to reduce mosquitoes from around their homes. This year's event reached around 200 students from two local schools.

The committee also held two other events this Fall, an additional Education Day event in St Mary Parish at VB Glencoe Charter School in Franklin. The event reached over 500 students from kindergarten to 12th grade. Also in October, committee members had an educational booth at the Louisiana Mosquito Festival in Cankton, St Landry Parish. We highlighted the mosquito life cycle, displayed live larvae, and distributed information on canine heartworm. This was the first annual festival and while attendance was hampered by severe weather, the festival featured great food and music. We are hopeful that future events will allow us to reach more residents and families in this part of the state.

The LMCA Education Committee is composed of members from East Baton Rouge Mosquito Abatement and Rodent Control, West Baton Rouge Mosquito Control, Iberia Parish Mosquito District, Jefferson Davis Parish Mosquito Abatement, Calcasieu Parish Mosquito Control, Ouachita Parish Mosquito Abatement, New Orleans Mosquito, Termite, Rodent, and Control Board, and Tulane University. Thank you to all the many additional volunteers who contributed their time, expertise, and talent to educate students and bring awareness to the importance of our work.



2025 LMCA Education Day



Announcements/Committee Updates

2026 LMCA SPRING WORKSHOP



LOUISIANA
MOSQUITO CONTROL
ASSOCIATION

4-WEEK COURSE

Structured accountability
Real-time engagement

FRIDAYS: APRIL 10, 17, 24 & MAY 1
9:00 AM-12:00 PM

- ✓ Live Interactive Virtual Format via Zoom
- ✓ 10-20 Minute Chapter Reviews
- ✓ LDAF General Standards & Mosquito Applicator (8A) Training
- ✓ Guided Discussions & Reviews
- ✓ Ideal for those preparing for Recertification or Initial Testing
- ✓ Full attendance at all four sessions is required
- ✓ FREE EVENT - Limited availability

REGISTER NOW!

 lmca.us



For more information:
Emily Boothe
emily.boothe@azelis.com



Announcements/Committee Updates

2026 Louisiana Arboviral Surveillance Sampling Standards

All Louisiana Mosquito Abatement Districts (MADs) and Parish surveillance-based abatement programs that contracted with the Louisiana Department of Health - Office of Public Health (LDH-OPH) for funding in 2007 agreed to the requirement that all surveillance activities must be consistent with published CDC guidelines and recommendations found in the Revised Guidelines for Surveillance, Prevention and Control, April 2003: <http://www.cdc.gov/ncidod/dvbid/westnile/resources/wny-guidelines-aug-2003.pdf>. These CDC guidelines and recommendations specify the use of standardized and consistent surveillance efforts by adult mosquito surveillance programs and promote states to establish statewide sampling standards. Each year, the Louisiana Arboviral Working Group's Surveillance Sampling Committee holds a meeting to establish statewide Arboviral Sampling Standards for that year. All MADs, Parish, town and city surveillance-based abatement programs in the State are invited to participate in this meeting.

The Arboviral Surveillance Sampling Standards listed below were agreed to by consensus by the Louisiana Arboviral Surveillance Sampling Committee and were recognized as the standards for 2026. For 2026, all sample analyses that are conducted by the Louisiana Animal Disease Diagnostic Laboratory (LADDL), and all samples submitted to the LADDL must meet the following guidelines:

Mosquito pools

RT-PCR will be performed for WNV, SLE, EEE

Submissions from September 1-March 31 will be limited to a maximum of 2 pools/trap nights.

Culex quinquefasciatus - 3 pools / trap night

Other Species - Maximum: 3 pools (100/pool) / species / site/ trap night

Mixed species pools - Limited to gravid trap collections

Total submissions - 6 pools (all species) / site/ trap night

Maximum: 100 mosquitoes / pool with a Minimum of 5 mosquitoes / pool, except may be lowered during winter months

Mosquitoes may be submitted throughout the year

From June - October 2026, pools will be tested for SLE and EEE

Place the mosquito samples in a 2.0 ml tube provided by the laboratory

When shipping mosquito samples, preferably ship in boxes containing dividers. If you use a plastic bag, bundle the tubes with a rubber band. Single tubes often pop open or crush during shipment.

All mosquito pool submissions will be accessed with a fee of \$5.50/pool from January 1st-December 31st, 2026. Monthly billing statements will be sent with charges.

Fees must be submitted to the LADDL in a timely fashion. If after 60 days from the invoice date, any fees are outstanding, no further samples will be tested for that submitter or from the MAD, parish, town or city connected to the outstanding payments, until all outstanding invoices have been paid in full.

Equine

Serum samples can be submitted to LADDL for WNV and EEE IgM antibody testing (ELISA) and will be charged with the standard laboratory testing fee. Please check the LADDL Website for Fees.

Request for testing must be through a veterinarian using the standard LADDL submission form.

Laboratory results will be reported to the client, i.e. submitting to veterinarians, and to the State Veterinarian.

Western or Venezuelan encephalitis antibody tests and necropsy request for confirmation of encephalitis are not included in this program. These requests can still be performed by LADDL for the standard fee.

All samples must be submitted within 8-10 days of sampling, or those samples will not be processed, unless prior notification and agreement with the LADDL have been reached. **Testing will take place on Tuesday and Wednesday of each week. Specimens for testing must be received in the laboratory by 12:00 pm on testing days for timely results.** The LADDL sample results must be utilized for all public distributions, including VectorSurv (LASurv) Reporting Requirements and press releases. LDH-OPH will continue to make statewide Press Releases concerning WNV, SLE, EEE activity and safety procedures.

MADs and Parish surveillance-based abatement programs may retain a split of some samples for internal testing. However, any such internal testing does not meet Louisiana Arboviral Surveillance Sampling Committee's 2026 Louisiana Arboviral Surveillance Sampling Standards, and therefore, any such internal test results, including any split sample results, may only be utilized for that program's internal use and distribution. Such results are specifically precluded from being reported to the public, especially in the form of Press Releases or other official statements/notifications. It is suggested that testing performed within districts should be performed with the appropriate test methods to include Polymerase Chain Reaction (PCR) and must be performed using measured quality standards. All test results should be added to VectorSurv (LASurv) and reported to the LA Department of Health.

Announcements/Committee Updates

2026 Louisiana Arboviral Surveillance Sampling Standards (Cont.)

LADDL and all participants in the Louisiana Arbovirus Surveillance Program are required to use the Web based database system VectorSurv (LASurv) System for both tracking field surveillance and recording lab test results. The Sampling Committee will review the numbers of submissions throughout the year. MADs are encouraged to "be reasonable" in their number of submissions. If disproportionate numbers are submitted, the Sampling Committee may agree to address the problem.

The Louisiana Arboviral Working Group Sampling Committee members currently include:

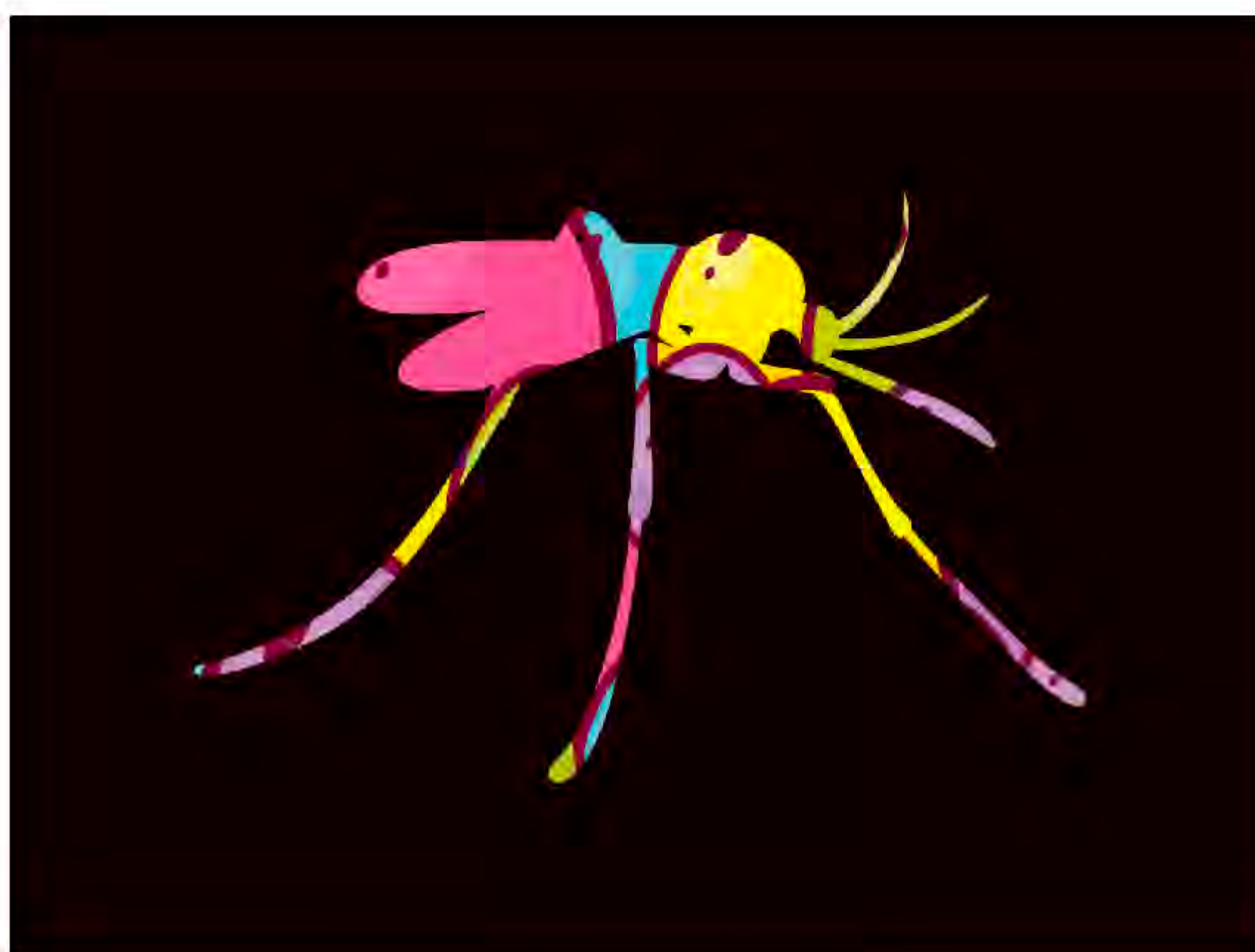
Kyle Moppert, OPH

Dr. Alma Roy, PhD, LADDL

George Bragg, Director - WBRMC

Dr. Kristen Healy, PhD, LSU

Dr. Amy Bunch, DVM, OPH



Happy Easter!!!!



*Individuals enhancing the health and quality of life
through the suppression of mosquitoes, other vectors
and pests of public health importance*



A Partner in the EPA's Pesticide Environmental Stewardship Program

While winter is a quieter time in the field, it is peak season for our legislative and strategic planning. The AMCA Board has been active this winter, following up on our mid-November session in Portland. We are focused on keeping the association financially sound and finding new ways to serve our members across all regions.

National Advocacy and Regulatory Fronts

We are currently pushing forward on several federal issues that directly impact our daily operations in the South-Central region:

- **Pesticide and Pollinator Guidance:** We are in active dialogue with the EPA and FVWS to ensure that mosquito control voices are central to labeling and education conversations.
- **The PERMIT Act:** We are tracking this closely in the Senate, advocating for streamlined regulatory processes that benefit our districts.

Emerging Tech and Threats: Work continues on refining drone guidance and advancing research on the *Culicoides*/Oropouche virus.

Mark your Calendars!

AMCA Annual Meeting (March 23–27): We're heading to Portland! Come network and learn the latest in our industry. Registration is open now-make sure to book your hotel and flights early! [Register here: amca2026.eventscribe.net](https://amca2026.eventscribe.net)

Washington Day (May 12–13): Every Louisiana voice strengthens our message on the Hill. If you haven't attended before, please consider joining us this year. [Event details here: mosquito.org/washington-conference](https://mosquito.org/washington-conference)

I highly encourage our Louisiana members to consider an AMCA Sustaining Membership if you don't already have it. Beyond supporting national advocacy, it grants you access to all training modules and exclusive registration rates. [Join or Upgrade Here: mosquito.org/sustaining-membership](https://mosquito.org/sustaining-membership)

A special thanks to our Technical Advisor, Dan Markowski, for his tireless advocacy. You can reach him at AMCA.TA@mosquito.org with any technical or regulatory questions. And of course, if you have questions or need assistance, I am a phone call or email away!

Colby Colona

AMCA South Central Regional Director

LMCA Awards



Hathaway - Ritter Distinguished Achievement Award

This award is given in recognition of outstanding contributions to the cause of mosquito control in Louisiana. Dr. Edward S. Hathaway (1886-1984) and Anderson B. Ritter (1904-1968) blended their interests, energies and remarkable talents into a focused effort bringing professional mosquito control to the people of Louisiana.

The 2025 recipient is **Kyle Moppert**



Kyle Moppert, Public Health Entomologist – In addition to his many years of service to the LMCA Board of Directors, Mr. Moppert has extensive work with FEMA, the CDC, GOHSEP, ID-EPI and others in vector control and hurricane recovery. He has also been instrumental in obtaining, managing, and distributing grant funds, equipment, and pesticides to Mosquito Abatement Districts, Parishes, the Louisiana Animal Disease Diagnostic Laboratory (LADDL), and to other public entities across the State.

LMCA Awards



Stephen C. Mayor Operational Achievement Award

Stephen C. Mayor was the president of the LMCA in 1996, and he also served as the Director of Mosquito Control in Jeff Davis Parish. The operational achievement award was created in memory of Mayor who died in a plane crash returning from a spray flight near Jennings, LA.

This award is for the best operational paper presented at the LMCA Annual Meeting. The award is made to residents of the State of Louisiana and employed by a mosquito control operation in Louisiana. The award consists of a cash award of \$500 and a plaque engraved with name and topic of achievement.

The 2025 recipient is **Alex Fortenberry Tangipahoa MAD**



Alex Fortenberry graduated from Louisiana Tech University in 2016 with a Bachelor of Science in Geographic Information Science. He began his career in GIS in the environmental field in 2016 and has worked on a wide variety of projects in both public and private sectors. He is also a veteran of the Louisiana Army National Guard. Alex joined the Tangipahoa Mosquito Abatement District in January of 2022 and oversees the Computer and Geographic Information Systems within the district. He currently serves on the Technical Advisory committee and was recently elected to serve on the Board of Directors for the Louisiana Mosquito Control Association, where he has been an active member since 2022. Alex has presented nearly every year at the LMCA annual meeting on technical innovations in the field of mosquito control. This year's presentation was titled "What's New In GIS/IT, From a Mosquito's Perspective".

LMCA Awards

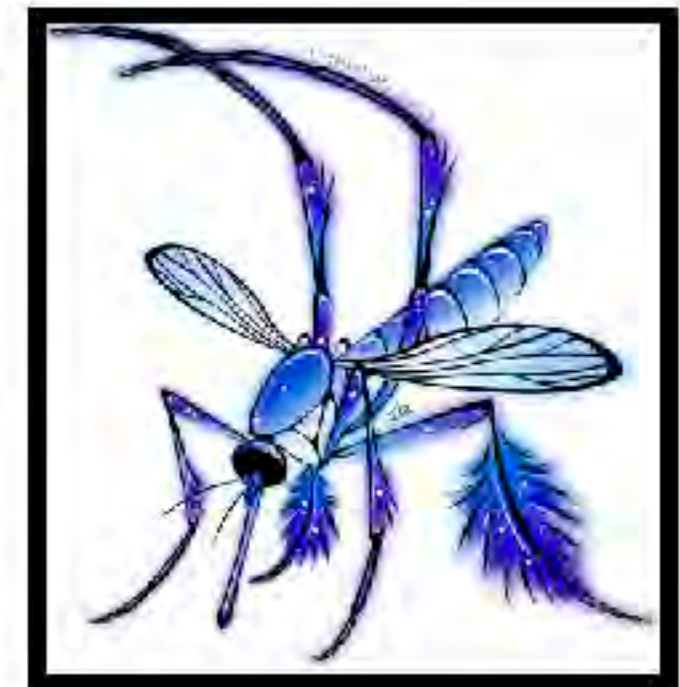
2025 LMCA Student Competition Winners

First Place: Ella Branham Univ. of Southern Miss.



Ella J. Branham is a passionate entomologist, botanist, and naturalist. From a young age she could be found running around with a net catching bugs, frogs, snakes, and other critters. She is currently attending the University of Southern Mississippi (USM), where she is pursuing a Master of Science degree in Biology. While at USM she traveled to Puerto Rico to investigate mosquito-flower ecology. Ella earned her Bachelor of Science in Biology with an emphasis in natural science from Utah Tech University (UTU). During her undergraduate studies, she gained extensive hands-on experience through a wide range of courses and developed strong skills in identifying insects, plants, and other organisms, as well as analyzing surrounding habitats.

Ella has worked in a variety of biology-based professional settings. Her experience includes working at multiple museums, such as the UTU Barnum Biology Museum, the Thanksgiving Point Butterfly Biosphere, and the William Hoy Insect Museum. In these roles, she developed skills in specimen curation, animal care, as well as public outreach and education. Most recently, Ella worked at the Salt Lake City Mosquito Abatement District, where she learned skills such as mosquito identification and rearing, running surveillance routes, and gained laboratory and fieldwork experience. Ella conducted her own research on mosquito-flower ecology, resulting in her first scientific publication. She also possesses skills in producing scientific art and has been commissioned by various organizations to design logos and stickers for scientific outreach (Etsy: TheBioNaturalist). Outside of her academic and professional work, Ella spends much of her free time collecting insects and pressing plants, looking for critters, creating art inspired by nature, and enjoying the outdoors.



Can be found @ Etsy: TheBioNaturalist

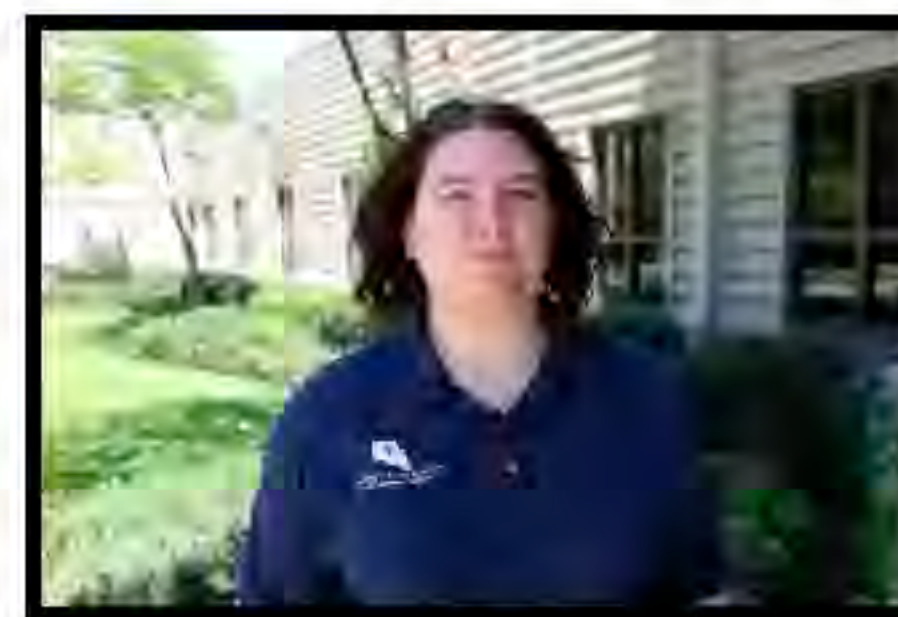
2nd Place: Shubham Yadav University Louisiana at Lafayette



Shubham is an ecologist and Ph.D. candidate at the University of Louisiana at Lafayette. His research centers on conservation biology, with a primary focus on understanding how freshwater fish species respond to Anthropocene-driven environmental change.

His doctoral work examines species-specific physiological and morphological responses to anthropogenic stressors, aiming to elucidate mechanisms that influence population resilience and long-term viability. In collaboration with the Louisiana Mosquito Control Association, he has investigated the ecological consequences of untreated sewage effluent, particularly its role in inducing masculinization in native biocontrol fish species in Louisiana.

3rd Place: Angela Smith St. Tammany MAD



Angela Smith has a Bachelor of Science degree in Biology from the University of Holy Cross and a Master of Public Health and Tropical Medicine from Tulane University. Her mosquito research experience includes

working in the Wesson Lab at Tulane and on the mosquito team at Tyson Research Center at Washington University in St. Louis. Angela is currently serving an Association of Public Health Laboratories Fellowship at St. Tammany Mosquito Abatement District where she is conducting surveillance on ticks and *Culicoides* in Louisiana. She is currently looking for tick submissions from across the state for pathogen testing, please contact her at asmith@stpmad.org to get involved!

LMCA Awards

2025 LMCA Poster Contest Winners



1st Place: Heather Penton St. Tammany Parish MAD

Heather Penton, MPH, is an APHL-CDC Public Health Laboratory Fellow at St. Tammany Parish Mosquito Abatement District. While at Tulane University, she earned her BSPH and MPH in International Health and Sustainable Development, researching vector-borne and zoonotic disease. With STPMAD, she has investigated the links between untreated septic water in ditches and its impact on *Culex quinquefasciatus* and mosquitofish habitats. As she wraps up her fellowship, she will be joining Dr. Don Yee's lab at the University of Southern Mississippi to pursue a PhD in mosquito ecology. Her favorite mosquito is the *Aedes aegypti*!

2nd Place: Kailynn Wells Tulane Univer-

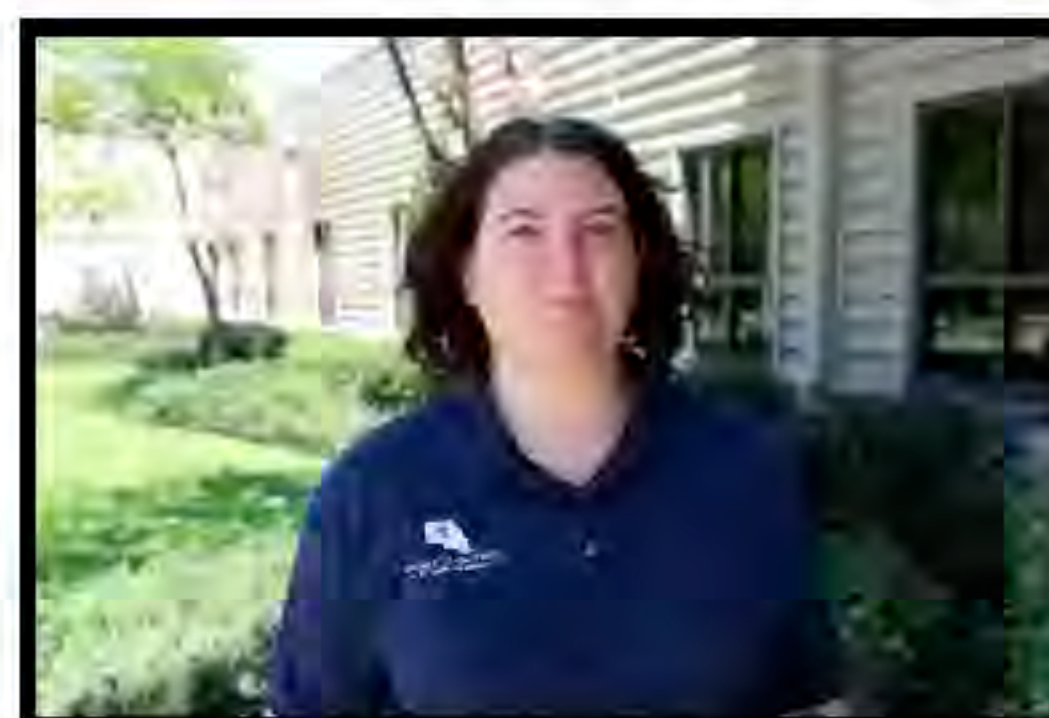


Kailynn Wells has a Bachelor of Science degree in Biology from Texas A&M University – San Antonio in 2024 and is currently pursuing a Master of Public Health and Tropical Medicine at Tulane University School of Public Health.

Kailynn is originally from San Antonio. During her undergraduate degree, she was mentored by Dr. Megan Wise in mosquito biology and ecology. She

was able to create her own research study to evaluate the abundance and diversity of mosquitoes residing in and around the San Antonio River, a popular tourist attraction. After graduating from Texas A&M University – San Antonio, she was accepted as an intern for the Public Health Entomology for All hosted by the Entomological Society of America and the CDC in Atlanta. After completing the internship, she enrolled in the Master of Public Health and Tropical Medicine at Tulane University. Currently, she works part-time at the St. Tammany Mosquito Abatement District under Dr. Isik Unlu.

3rd Place: Angela Smith STPMAD



Angela Smith has a Bachelor of Science degree in Biology from the University of Holy Cross and a Master of Public Health and Tropical Medicine from Tulane

University. Her mosquito research experience includes working in the Wesson Lab at Tulane and on the mosquito team at Tyson Research Center at Washington University in St. Louis. Angela is currently serving an Association of Public Health Laboratories Fellowship at St. Tammany Mosquito Abatement District where she is conducting surveillance on ticks and *Culicoides* in Louisiana. She is currently looking for tick submissions from across the state for pathogen testing, please contact her at asmith@stpmad.org to get involved!

LMCA Awards

Presidential Citation Renee Pellerin



Renee began her career in 2007 as a Laboratory Technician and Field Supervisor with the Iberia Parish Mosquito Control District. In 2009, she was promoted to Surveillance Supervisor/Biologist, where she was responsible for establishing permanent gravid and light trap surveillance sites and determining strategic trap locations to support effective mosquito monitoring. In 2014, she advanced to the position of Assistant Director, focusing on updating and maintaining operational zone maps, assigning and reviewing spray missions, and overseeing all operational equipment.

Renee became a member of both the Louisiana Mosquito Control Association (LMCA) and the American Mosquito Control Association (AMCA) in 2007. In 2014, she joined the LMCA Education Committee and served as Committee Chair for seven years. She was elected to the LMCA Board of Directors in 2020, served as Vice President in 2025, and currently serves as President. Renee is a graduate of McNeese State University, where she earned a Bachelor of Science degree in General Agriculture.



Education Committee Volunteers at the 2025
Cankton Mosquito Festival!!!!

University News

Louisiana State University:



Dr. Jonathan R. Hernandez joined the LSU AgCenter in 2026 as an Assistant Professor of Insecticide Toxicology. His research program focuses on understanding how insecticide resistance develops and how resistance documented in the laboratory translates to reduced control performance under field conditions. By integrating molecular diagnostics, physiological assays, and field-based exposure studies, he works to clarify when laboratory-measured resistance is likely to lead to operational control failure.

Prior to joining LSU, he contributed to multiple studies on the genetic and practical impacts of resistance in *Aedes aegypti* at Texas A&M University and received several research and teaching awards. In addition to his mosquito work, Jonathan has conducted research in ticks, including studies on peptide signaling and physiological function, and he maintains a broader interest in identifying novel biological pathways that may serve as future control targets. At LSU, he is building a program that supports agriculture, public health, and integrated pest management across Louisiana through applied, mechanistic toxicology research.

University News

2026 LMCA Operational Research Fund Recipient: Joseph Njuguna Muthoni University of Louisiana at Lafayette



Joseph Njuguna Muthoni holds a BSc in Medical Laboratory Sciences from the University of Nairobi and an MSc in Tropical Disease Biology from the Liverpool School of Tropical Medicine. He has built broad experience in vector-borne disease research through work at the International Centre of Insect Physiology and Ecology (icipe) in Kenya and during his initial doctoral training at Brock University in Canada. Joseph is now continuing his PhD in Biology at the University of Louisiana at Lafayette, where he investigates insect-specific viruses as innovative tools to block pathogen transmission in mosquitoes. His LMCA-supported project will evaluate insect-specific Negevirus in *Aedes* mosquitoes, tracking their spread and ability to reduce arbovirus transmission. This work aims to generate a practical, biologically based approach to strengthen mosquito control efforts in Louisiana.

LMCA Member Spotlight

Danny Bartie Calcasieu Parish MAD



Danny Bartie has been employed at Calcasieu Parish Mosquito Control for over 30 years. His title is Shop Foreman, but he is so much more. He is always ready to lend a helping hand whenever it is needed. Whether it's assembling a workbench, making gravid water totes for the lab, constructing brackets for the drone, or just finding a better way for something to work- he is always up for the challenge. Danny's favorite phrase is "We'll make it happen," and he always does make it happen!

There is probably not one area of our Mosquito Control Department that he has not assisted at some point in time. Throughout his long career, Danny has found countless ways to make truck operations more efficient. His management of our truck fleet has been modeled by other departments in the Calcasieu Parish Police Jury. Some of Danny's other accomplishments include perfecting our right-side driving larvicide trucks. He presented his work at the 2015 LMCA Annual Meeting and won the Stephen C. Mayor award. Another project he conducted was developing a unique mixing and pumping system for DeltaGard. After much troubleshooting, Danny and his crew were able to design a system to make the process less labor intensive. He has also been an asset to the LMCA while volunteering at our Education Day events.

At the end of the day, there is no project too big or too small for Danny, and he does it all with a smile and plenty of laughs.

Cade Wilson Tangipahoa MAD



We are excited to introduce the newest face at Tangipahoa MAD!

Please join us in welcoming **Cade Wilson**, who joined our team as an Inspector on February 10, 2025. Since stepping into his role, Cade has quickly become a valued member of our TMAD family. While he is known for his quiet demeanor, he has already developed a good work ethic and dependability. He also obtained his 8A certification less than three months after hire.

Cade lives in Mandeville with his wife, Lisbeth, and his son, Woodrow. When he isn't out mosquito hunting, he enjoys computer games and reading.

Though he has only been with us for a short time, Cade's dedication to the mission of mosquito control is evident. We are very fortunate to have him on our team!

District News

Ascension Parish

Ascension Parish Mosquito Control has implemented an advanced aerial application capability through the operation of a DJI Innovations AGRAS T40 drone, enhancing the efficiency and precision of mosquito control treatments. Drone-based applications allow for targeted treatment of waterways and other difficult-to-access areas that are not readily reachable by ground-based equipment. This method has been particularly effective in treating mosquito breeding habitats and adult mosquitoes surrounding parks and recreation areas, where terrain, vegetation, and environmental constraints can limit traditional truck-mounted operations.

Our program operations are supported by two FAA-certified Remote Pilots, licensed through the U.S. Department of Transportation, Federal Aviation Administration. Both drone operators hold a Louisiana Pesticide 8A Applicator's License issued by the Louisiana Department of Agriculture and Forestry, ensuring all applications are conducted in compliance with state and federal regulatory requirements. The integration of drone technology into Ascension Parish Mosquito Control operations provides a precise, efficient, and environmentally responsible approach to mosquito management while improving access, coverage, and overall treatment effectiveness.



Caddo

Greetings from Caddo Parish! 2025 turned out to be a slow year for mosquito control. It was dry most of the year. Complaints and collections were down. We did have five cases of West Nile Virus and 25 positive pools, so that kept us busy. The winter of 2026 has been a mixed bag. Warm temperatures most of the time, but at the end of January, we had a serious ice storm that shut the parish down for a week. Then, two weeks later, it was 80 degrees. At the time of this writing, we are currently starting spring maintenance on the sprayers. We will also be upgrading three of our vehicles this season. We have identified more areas to treat with the drone this year, and that will start in March. Surveillance will start in the 3rd week of March. Good luck with the season.

Bryan Glascock

District News

Cameron

In Memory of **Reagan Cook:**

In the fall of 2025 Cameron Parish lost an unsung hero. Reagan flew for Cameron Parish and Calcasieu MAD from 1975 until 2023. Occasionally he also flew missions for Vermillion and other parishes that did not have a plane. He trained most of the pilots for both Cameron and Calcasieu parish since the inception of both programs. He played a very important role in protecting the people and livestock of Cameron parish following major storms like Rita, and Ike. With so many years of spraying in the heart of mosquito country, there is no doubt that Reagan is probably responsible for killing more mosquitoes than anyone in the world!



Jeff Davis

It was great to see everyone at the annual meeting in Baton Rouge! Looking back on 2025 at Jefferson Davis Parish Mosquito Control, we accomplished several important projects that improved both safety and operations.

- **Back parking lot improvements:** We completed much-needed concrete work and added drainage to our back parking lot, making the area safer and more accessible.
- **Hanger door upgrade:** Our hanger door opening system was updated to straps, enhancing safety for all staff.
- **Fleet improvements:** We purchased three new inspector trucks, upgrading to Ford Rangers to support our field operations more efficiently.

These projects reflect our ongoing commitment to safety, efficiency, and providing the best service possible to the community. We are looking forward to continuing this progress in 2026!

Heath Deese, our Assistant Director, shared updates on district operations and Louisiana's 2025 state disease report at the Shelby County Health Department Vector Control Conference in Memphis, Tennessee in November.

District News

Orleans

In 2025, the City of New Orleans Mosquito Termite and Rodent Control Board observed an extremely high level of WNV activity in our mosquito populations, surpassing previous recorded years in our district. We detected WNV activity from CDC weeks 20 to 48. The peak detection week was CDC week 28, where mosquito pools from 30 of our 46 trapping sites were found to be WNV+. Although we observed the highest number of WNV+ mosquito pools this year since 2012, the number of reported human cases in Orleans Parish did not exceed typical yearly cases (Fig 1). We detected our first WNV+ mosquito pool in 2026 in CDC week 6.

WNV Activity in Orleans Parish

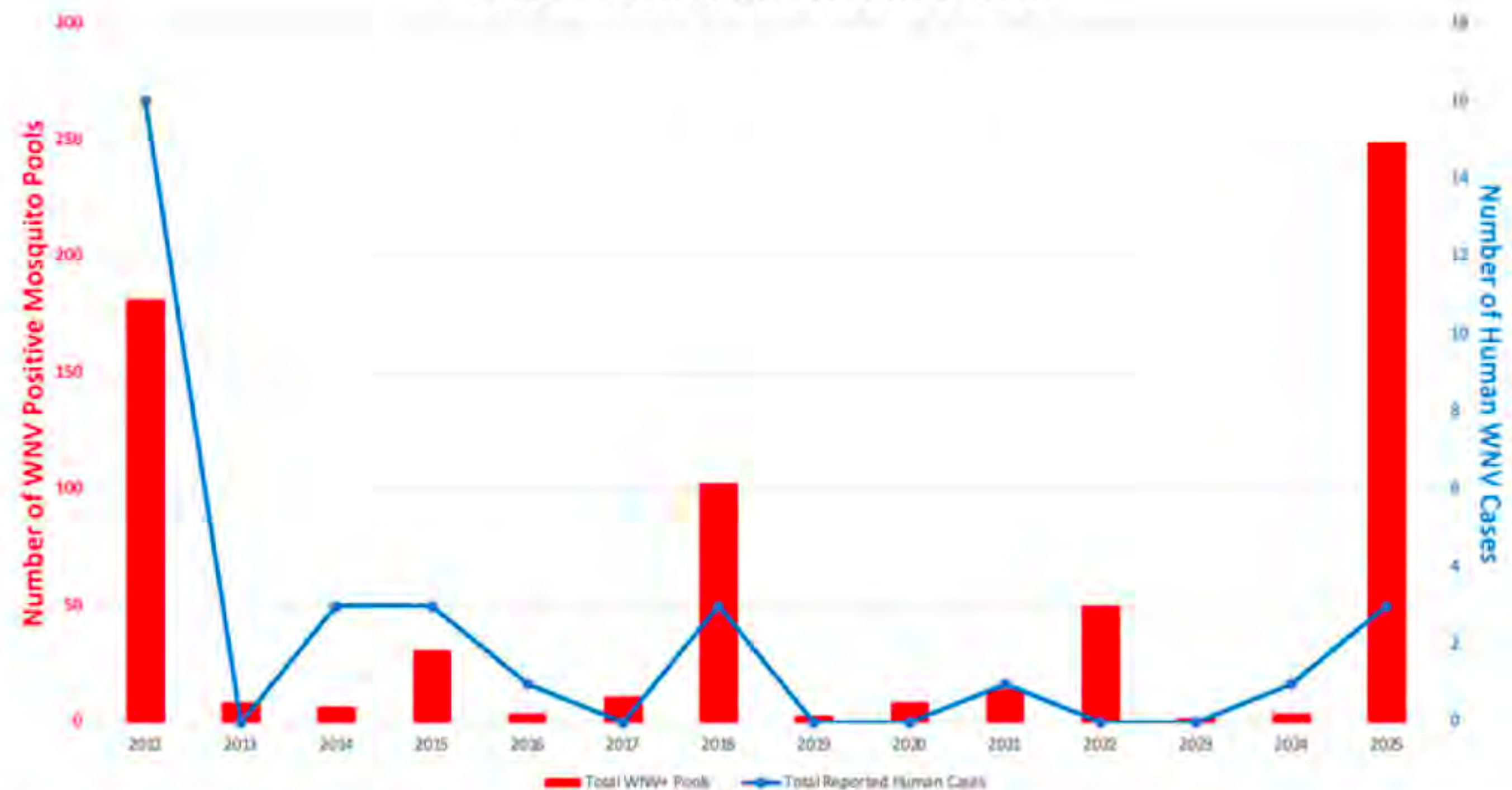


Figure 1: Graph showing WNV+ mosquito pools and human cases reported in Orleans Parish from 2012-2025. Red bars indicate the total number of WNV+ mosquito pools, and the blue line indicates the total reported human cases.

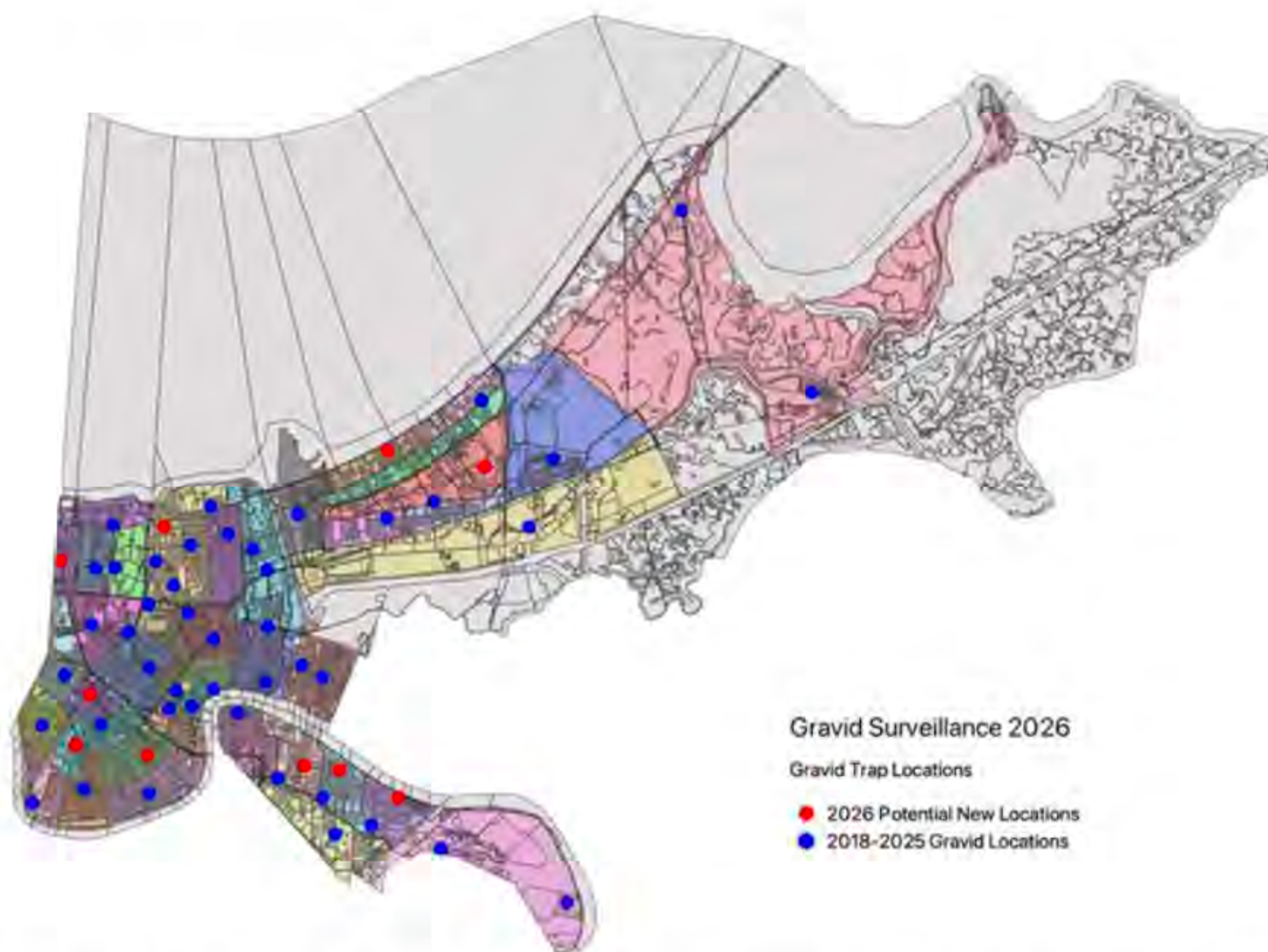


Figure 2: Map showing our expanded weekly gravid trap surveillance program overlaid on our operational spray zones. Blue dots show trapping sites used from 2018-2025. Red dots show the new trapping sites we are including in 2026 to increase our coverage.

To continue to enhance our arbovirus surveillance program, we are increasing our total weekly gravid trap locations from 46 locations to 55 locations (Fig 2). These changes will provide us with better trapping coverage throughout our parish, allowing us to better target abatement activities and provide our residents with better protection from arboviruses. We intend to begin trapping at these additional locations in late February.

District News

Ouachita

Navigating the Aftermath of Winter Storm Fern

By: Kellie Nestrud, Director, Ouachita Parish Mosquito Abatement District

Winter Storm Fern (January 23–25, 2026) was an unprecedented arctic event for North Louisiana, paralyzing Ouachita Parish under a crippling combination of heavy sleet and freezing rain. With temperatures remaining sub-freezing for over 90 consecutive hours, the resulting damage left an estimated 54,000 homes—nearly 90% of our residents—without power. Most families endured the entire four-day freeze in the dark, with many waiting over 10 days for restoration, often while simultaneously facing the loss of running water. While the community remains focused on recovery and debris removal, our district is preparing for a projected surge in mosquito populations driven by the storm's devastating aftermath.

The massive tree failure across the parish has permanently altered our topography, creating thousands of new micro-habitats. Uprooted "root balls" and broken timber have left behind surface depressions, while the heavy equipment used for debris collection has further impacted the landscape with tire ruts and large depressions from grapple arms collecting roadside debris. These depressions, coupled with storm-damaged drainage systems now clogged with organic matter, provide ideal breeding grounds for several species as we enter the spring rainy season. We are already observing unseasonably warm temperatures, and mosquito populations are beginning to increase rapidly.

The primary challenge for the 2026 season is the disruption of physical access. While the Parish is working tirelessly to clear debris, the sheer volume of damaged timber is staggering. As residents focus on structural repairs, stagnant water in debris-filled ditches has become largely inaccessible for traditional treatment. In response, OPMAD is adapting our surveillance and larviciding strategies to target these newly created "storm-voids." Despite the record-breaking "hard freeze," the persistent moisture from seven inches of sleet melt—combined with a proliferation of organic debris—has set the stage for a robust early-season emergence. Our mission for 2026 is centered on mitigating this secondary public health threat, ensuring that the recovery from Winter Storm Fern is not further complicated by a preventable spike in mosquito-borne diseases.



District News

Tangipahoa

As we gear up for mosquito season, we have many great things to share regarding our past few months! Per our 2025-annual report, over 330,000 mosquitoes were counted between our CDC and gravid traps. This number is approximately 130,000 less than what was counted in the previous year. Over 2,240 samples were collected and sent to LSU for WNV, SLE, and EEE testing. Of the samples, 232 tested positive for WNV. Four human cases were reported inside our district. The disease activity for 2025 was significantly higher than that of 2024, which resulted in just 26 positives. There were no positive samples of SLE and EEE.

Our first larviciding drone (Agras T30) completed 15 missions during its first full season. The drone proved to be successful in expanded treatment missions, providing flexibility and expanded reach for larviciding treatments. The Agras T30 was a major hit at the Hammond Air Show! Social Media continues to be a vital tool in transparency for our district. Between our "WNV Risk Map" and weekly graphics and posts, our page saw over a 100% increase in followers, page engagement, and interactions.

Here at TMAD, we wish you all the best in your districts as we prepare for the 2026 mosquito season!



West Baton Rouge

Greetings from West Baton Rouge Parish! With multiple rounds of frigid temperatures throughout this winter, our spring mosquito season is getting off to a slower start than in previous years. Not that we're complaining, of course.

Field Supervisor **Michael Joseph** and Specialist **Ronnie Carpenter** have been hard at work preparing trucks, spray equipment, and surveillance equipment for this coming season. New ULV units and MESA tablets are also being installed for this spray season.

Storm drain inspections/treatments are set to begin soon. Barring any unforeseen rise in mosquito/virus activity in March, we will begin our 2026 surveillance/disease monitoring program during the first week of April as we typically do.

Whatever the 2026 season has in store, we are confident our team will rise to the challenge. On behalf of the team here at WBRP Mosquito Control, we wish you and your team a safe and successful season ahead, and we look forward to seeing you a little later in the year.



Honoring the Life and Legacy of Dr. Robert Cadwell Lowrie, Jr.

Dear Louisiana Mosquito Control Association Members,

It is with great sadness that we share the news of the passing of one of our most respected colleagues and long-time supporters, Dr. Robert Cadwell Lowrie, Jr., who passed away peacefully on January 31, 2026, at the age of 90. Known affectionately to friends and colleagues as "Bob," Dr. Lowrie's career was defined by a deep commitment to public health, scientific inquiry, and service to the mosquito control community. Born on March 23, 1935, in Detroit, Michigan, Bob embarked on a distinguished academic and professional journey that would leave an enduring mark on entomology and vector-borne disease research.

Academic and Professional Achievements

Dr. Lowrie first developed an interest in mosquito-borne diseases during the early 1960s while working as an Assistant to the Director of Biological Sciences Laboratories at Fort Detrick, Maryland. To pursue this passion, he earned a Master of Public Health (Medical Entomology) from Yale University in 1966, followed by a Doctor of Science in Medical Entomology and Parasitology from Johns Hopkins University in 1971.

Shortly after completing his doctoral studies, Dr. Lowrie moved to the New Orleans area where he began a long and impactful association with Tulane University. At the *Tulane Regional Primate Research Center* in Covington, he focused on the epidemiology of vector-transmitted diseases, including human filariasis — a mosquito-borne parasite that causes elephantiasis. His fieldwork took him to Colombia, Guatemala, and Haiti, where he conducted research and provided treatment to affected individuals.

During the later years of his career, he played an integral role in multidisciplinary studies on Lyme disease. Notably, the Lyme disease vaccine that became widely used in humans was first tested under his supervision in non-human primates.

Dr. Lowrie also served as Adjunct Associate Professor in the Department of Tropical Medicine and Parasitology at the *Tulane School of Public Health and Tropical Medicine*, where he taught medical entomology for 18 years and lectured in malaria and parasitology courses. He retired in 1997 after decades of dedicated teaching and research and authored more than 60 publications in professional journals.

Service to LMCA and the Mosquito Control Community

Dr. Lowrie was deeply involved with the Louisiana Mosquito Control Association, serving on the Board of Directors from 1994 to 2000 and chairing several committees. His leadership and mentorship helped shape LMCA's scientific and educational direction. In recognition of his contributions, he was honored with the Hathaway-Ritter Distinguished Achievement Award — one of the highest accolades within the association.

Beyond his committee work, he reviewed manuscripts for numerous professional journals, including *Journal of Medical Entomology*, *Journal of Parasitology*, *American Journal of Tropical Medicine and Hygiene*, and others, demonstrating his continued commitment to advancing vector science.

A Legacy of Impact

Dr. Lowrie's influence extended beyond Louisiana, contributing to global understanding of mosquito-borne diseases through field research, teaching, and professional collaboration. His wit, wisdom, and dedication enriched the lives of students, researchers, and colleagues. He leaves behind a legacy of scientific achievement and professional service that will continue to inspire all of us in the mosquito control field.



Honoring the Life and Legacy of Dr. Peter Gerone

Dear Louisiana Mosquito Control Association Members,

We pause to honor the life and service of **Dr. Peter Gerone**, a remarkable leader, scientist, and dedicated public servant. Dr. Gerone earned his doctorate in Microbiology/Virology from Johns Hopkins University and served for more than 30 years as Director of the Tulane National Primate Research Center. Throughout his distinguished career, he advanced critical biomedical research and demonstrated exceptional leadership in complex scientific and administrative environments.

Many of us knew Pete best through his unwavering commitment to our organizations. He served well over 20 years on the St. Tammany MAD Board and on the LMCA Financial Committee. His steady guidance, intellectual rigor, and practical wisdom played a vital role in strengthening LMCA's financial foundation. Managing and advising on budgets is often a challenging and thankless responsibility, yet Pete stepped up year after year to ensure long-term stability and success for our membership.

Pete was also the recipient of the Presidential Award for Meritorious Service — a fitting recognition of his dedication and impact. Beyond his impressive credentials, Pete was a positive presence, a thoughtful advisor, and a strong supporter of employees and colleagues. He rarely missed a meeting, always brought common sense to complex issues, and consistently acted in the best interest of the District (STPMAD).

We owe him a great deal of gratitude and appreciation. He will be deeply missed.



LMCA Reflections by Jeff North

Are they crawfish or crayfish? Perhaps you may know them better as mudbugs, crawdads, yabbies, mountain lobsters, and even other names. Regardless of your preferred term, we can all agree that when we hear one of these names, we know what is being referred to. For this discussion, let's use the term "crayfish" for consistent terminology and descriptions, however, I reserve the option to deviate and call them by other names. That should draw a laugh from some of you scientists.

Before writing this article, I thought about a funny story that I heard many years ago. There was an engineer giving a presentation regarding flood control on the Mississippi River to a group of concerned citizens, businessmen, farmers, and others. The moderator gave a lengthy introduction noting all the speaker's credentials, experience, and publications for the audience to understand that he was indeed qualified to speak on the subject at hand. However, at the end of his introduction, he mentioned to the speaker, that there was a fellow in the back of the room that also knew a little about flooding...his name was Noah. I feel somewhat like the engineer by offering an article on crayfish to the world's authorities in Louisiana. But here it goes, so please be kind.

The name "crayfish" is derived from the Old French word "escrevisse." Worldwide, there are around 700 hundred species described with around 400 species found in North America. Breaking these numbers down even more, around 350 species are recognized in the United States and around 40 species are found in Louisiana and Mississippi. They have been around for a long time. "Modern" crayfish, as we know them, may have been in what is now North America over 250 million years ago as noted from prehistoric fossil burrows.

Crayfish are important species in the ecology of a "healthy" swamp as they serve as prey for many fish including, largemouth and smallmouth bass, many species of perch, catfish, racoons, otters, and many other opportunistic predators. Their own diet can vary widely consisting of insect larvae, algae, grass, worms, aquatic plants, and detritus. Detritus, also called organic mud, is defined as decomposing organic matter found in lakes, ponds, streams, and other bodies of water.

The culinary use for crayfish is vast. Locally, they are prized for their tail meat which is used in dishes like gumbo, etouffee, and bisque. Additionally, they are popular when fried like shrimp and oysters. They are probably most recognized when featured in a culinary event known as a "crawfish boil." I won't go into details of how a "boil" is prepared, as "Noah" is in the audience.

Crayfish production in Louisiana varies somewhere between 100 to 150 million pounds annually depending upon acres harvested and environmental conditions. This can equate to around 300-350 million dollars to the state's economy each year and accounts for around 90 % of the total crayfish supply in the U.S. In contrast, Asian countries produce around 2.5 million tons of crayfish annually valued at around 9 billion dollars each year. That's a lot of mudbugs. Remember though, buy local if you can!

I remember in my youth wading creeks and streams with a small net in hand. I would "seine" the mud and gravel bottoms searching for any creatures I could capture. Crawdads, along with turtles, small fish, and frogs were highly prized. My buddies and I would set up a trading post in the neighborhood and swap specimens. During these rendezvous, we would have a campfire and cook some of the bounty we collected on our excursions including fish, robins, and whatever else our stringers and gamebags held. Those times are still some of my fondest memories as a boy. I would invite you to share these opportunities with your children and grandchildren and get them outside to learn about the swamps. It sure beats becoming addicted to that cell phone.

I can't help but retell the story from one of Louisiana's own, Justin Wilson. I recall his story about a momma crawfish taking her two baby crawfish out to show them the world. As they traveled down the bayou, one of the baby crawfish threw its tail in high-speed reverse and said "what dat is, momma?" Momma replied, "don't worry about dat, it's just a horse, they don't eat crawfish." So down the bayou they continued. In a few minutes the other baby crawfish threw its tail in reverse and said, "what dat is, momma?" Momma crawfish replied, "dat's just a cow, dey don't eat crawfish either." A few minutes later, momma crawfish threw her tail in reverse and took off back the way they had come. Baby crawfish then asked, "what that is, momma?" Momma crawfish answered, "that a Cajun, swim fast, he'll eat anything." I still laugh when I think of that story.

Crayfish are interesting creatures indeed. Take the family out and teach them about these novel species. After a day's excursion into the swamp, you may return home hungry. I bet you know where you could get a platter of the tasty mudbugs though. Until next time enjoy our woods and waters, and remember, let's leave it better than we found it. I'll see you in the swamp soon. jeff.north@northag.net



Picture by Josh Hightower

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Our primary mission is to enhance the quality of life through the suppression of mosquitoes for all here in Louisiana. The following services and training resources are invaluable tools used by Mosquito Control professionals through out their individual parishes and the entire state. Visit our website at www.lmca.us for more information.

- E-Newsletters
- Workshops
- Annual Meetings
- Technical Advisory Services
- IPM Training
- Educational Resources
- Legislative/Regulatory Monitoring
- Technical Manuals / Bulletins



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