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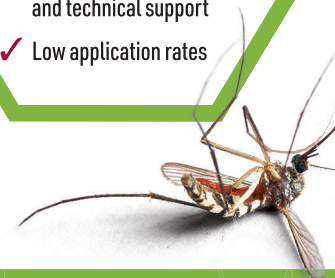
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★ AMCA ★

90th ANNUAL MEETING

DALLAS TX

March 4-8, 2024 ★ Sheraton Dallas Hotel



AMCA 90th Annual Meeting At-A-Glance



90TH ANNUAL MEETING
At-A-Glance

Mon March 4	8:30 am - 3:00 pm	Pre-Conference Workshop: Young Professional (D3)				
	8:00 am - 3:00 pm	Pre-Conference Workshop: Bottle Bioassay Workshop (Pre Registration Required) (Press Room)				
	7:30 am - 3:00 pm	Pre-Conference Workshop: Mosquito Adulticiding Perceptions Workshop (invite Only)				
	10:00 am - 6:30 pm	Registration (Grand Hall)				
	1:00 pm - 5:00 pm	Speaker Ready Room (Pearl 2)				
	1:00 pm - 5:00 pm	Committee Meetings (A1, A2, A3, Pearl 1)				
	2:00 pm - 4:00 pm	Poster Set-up (Grand Hall)				
5:00 pm - 8:00 pm	Grand Opening of the Exhibit Hall and Welcome Reception - Badge Required for Entry (Grand Hall)					
Tues March 5	7:00 am - 5:30 pm	Registration (Grand Hall)				
	7:00 am - 5:30 pm	Speaker Ready Room (Pearl 2)				
	8:00 am - 12:00 pm	Plenary Session (Dallas BC)				
	10:00 am - 10:45 am	Refreshment Break (Grand Hall)				
	12:00 pm - 1:45 pm	Lunch with Exhibitors (Grand Hall)				
	1:45 pm - 3:15 pm	Legislative and Regulatory Symposium I (A3)	Mosquito Lightning Symposium (Dallas BC)	Student Competition I (A1)	Using NASA Satellite Data to Enhance Understanding of Vector Habitats and Disease Transmission Symposium (D3)	Operations I (D2)
	3:15 pm - 4:00 pm	Refreshment Break in Exhibit Hall/Ice Cream Social - Badge Required (Grand Hall)				
4:00 pm - 5:30 pm	Legislative and Regulatory Symposium II (A3)	Arboviral Surveillance throughout the United States Symposium (A2)	Student Competition II (A1)	What Have We Learned: A Conversation on 15 Years of Spinosad Use in Public Health Symposium (D3)	Operations II (D2)	
5:45 pm - 7:15 pm	Latin American Discussion (D3)					
Wed March 6	7:00 am - 5:30 pm	Registration (Grand Hall)		Speaker Ready Room (Pearl 2)		
	7:00 am - 8:15 am	Welcome Breakfast (Dallas BC)				
	8:00 am - 2:00 pm	Education Day (Off-Site Event)				
	9:30 am - 3:00 am	Trustee/Commissioner Tour (Off-Site Event) Badge Required				
	8:30 am - 10:00 am	Lesser Known Arboviruses Symposium I (A3)	Cryptic Mosquitoes: Hide and Seek and Treat? Symposium I (A2)	Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium I (A1)	Association/Society and Collaboration Symposium I (D3)	Insecticide Resistance Knowledge Gaps and Needs Roundtable - Pre-Registration Required (D2)
	10:00 am - 10:45 am	Refreshment Break in Exhibit Hall (Grand Hall)				
	10:45 am - 12: 15 pm	Lesser Known Arboviruses Symposium II (A3)	Cryptic Mosquitoes: Hide and Seek and Treat? Symposium II (A2)	Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium II (A1)	Latin American Student Competition I (D3)	Intern to Imago: Student Professional Development at Mosquito Control Districts Symposium (D2)
	12:15 pm - 1:45 pm	Poster Session - Lunch (Grand Hall)				
	12:15 pm - 4:00 pm	Exhibits Open (Grand Hall)				
	1:45 pm - 3:15 pm	Breaking news! AMCA Launches FREE Virtual Training Program about Integrated Mosquito Management Symposium (A3)	UAS Ops in Mosquito Control Symposium I (A2)	Disease & Vector Studies I (A1)	Latin American Student Competition II (D3)	Young Professionals Symposium: Panel (D2)
3:15 pm - 4:00 pm	Refreshment Break/Donut Social in Exhibit Hall (Grand Hall)					
4:00 pm - 5:30 pm	From Buzz to Bust: The Future of Mosquito Surveillance for Innovative Control Strategies Symposium (A3)	UAS Ops in Mosquito Control Symposium II (A2)	Disease & Vector Studies II (A1)	Artificial Intelligence in Mosquito and Vector Control/Behavior/Biology/Genetics (D3)	Young Professionals Symposium: Career Roundtables (D2)	
5:30 pm - 6:30 pm	Young Professionals Social (Press Club)					
6:30 pm - 7:30 pm	Past Presidents Reception (Hotel Suite)					
Thurs March 7	7:30 am - 4:00 pm	Registration (Grand Hall)		Speaker Ready Room (Pearl 2)		
	8:30 am - 10:00 am	Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium I (A3)	Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium I (A2)	Sugar Feeding and Diurnal Resting of Mosquitos Symposium (A1)	Latin American Symposium I (D3)	Adult Control I (D2)
	10:00 am - 10:45 am	Break (Grand Hall)				
	10:45 am - 12: 15 pm	Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium II (A3)	Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium II (A2)	Social Media and Mosquito Control Symposium (A1)	Latin American Symposium II (D3)	Adult Control II (D2)
	12:15 pm - 1:45 pm	Lunch On Own				
	1:45 pm - 3:15 pm	10 Annual AMCA Arthropod Vector Highlights Symposium (A3)	Disease & Vector Studies III/Larval Control I (A2)	Education & PR (A1)	Equipment/New Product Trials (D3)	Adult Control III (D2)
	3:15 pm - 3:45 pm	Refreshment Break (Grand Hall)				
	3:45 pm - 5:15 pm	GIS/GPS/Management (A3)	Larval Control II (A2)			
	6:00 pm - 7:00 pm	Pre-Banquet Social (Grand Hall)				
	7:00 pm - 9:00 pm	Banquet (Dallas BC) Badge Required				
Fri March 8	8:30 am - 9:30 am	AMCA Annual Members Meeting (D3)				
	9:30 am - 12:30 pm	Board of Directors Meeting (Pearl 4)				
	Meeting Adjourns - See you in San Juan, PR in 2025					

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HOW TO READ THE PROGRAM

Day and Date at top of each page

Start – End Time	MORNING OR AFTERNOON
-------------------------	-----------------------------

Symposium/Session Title

Organizer/Moderator: Name

Start Time – End Time

*(may be different from
start-end time in main
heading, check each
symposium/session)*

Room Location

Time Abstract # Presentation Title
Presenter, Other Author(s)

Time Abstract # Presentation Title
Presenter, Other Author(s)

And so on...

A number preceded by a PL indicates a plenary session talk;

A number preceded by a P- indicates a poster;

All other numbers are oral presentations.

If there is no number listed, there is no abstract associated with that presentation.

Speaker and other authors are found in the program book **author index**.

All author affiliations are listed in the **online abstract book** (Available online in PDF).

Maps to meeting locations and exhibitors are on the last pages of the program book.

INTRODUCTION

MESSAGE FROM THE PRESIDENT

KRISTEN HEALY

I am so incredibly excited to welcome you all to the 90th annual AMCA meeting in Dallas. There is so much to do and see within and outside of the AMCA annual conference, and I hope you take every opportunity to explore what there is to offer.

You've probably noticed over the years that the AMCA annual meeting continues to change and modify based on the needs and interests of our membership. Our goal is to continually adapt our program to the interests of AMCA. We always appreciate feedback from the membership, and we are always willing to consider new ideas. We have recognized that workshops have become a new topic of interest to the membership, and we are excited to begin offering a "call for workshops" for the annual meeting in 2025. This is just one of the many new and exciting changes we are planning for the future of AMCA. I'd like to offer a special thanks to our AMCA Vice President, who is also serving as program chair this year. Mr. Herff Jones has put together an excellent program, and we hope you can attend many of the symposia, special events, workshops, poster sessions, meals, meetings, and other content provided throughout the week.

I hope you take every opportunity to visit the vendor area during the meeting. The continued support from vendors helps make these amazing conferences possible. I absolutely love our venue in Dallas as our vendor area is close to all of our meeting rooms and activities. So please make it a point to stop by vendors to say hello and thank you for their support. And if you are new to the industry, don't hesitate to pick up business cards and visit vendors both big and small.

I'm incredibly excited to be offering our second annual networking breakfast this year. The breakfast is for everyone, and its goal is to bring everyone at the meeting together to laugh, have fun, meet new people, while eating a fulfilling breakfast. I hadn't anticipated such a large turnout last year, and so this year we were sure to develop fun content that everyone can enjoy. And our event MC, Mike Riles, will be sure to entertain us with a collection of music related to mosquitoes and other vectors. If you are unable to attend the networking breakfast, I encourage you to take advantage of other opportunities to network at the event. Look out for unique networking opportunities and use the conference app often to say hello to others attending the meeting.

While the AMCA meeting itself is jam packed with content, don't forget to take a little time to enjoy Dallas. It's a great location to experience the rich culture and history, all while enjoying the diversity of flavors from restaurants close by. The Historic district is a short walk away, and features a museum chronicling the assassination and legacy of President John F. Kennedy. You'll also find a wealth of things to do and see in the area, including art, shopping, and so many wonderful restaurants. When we visited in November, I had eaten an excellent mix of tacos, pizza, barbeque, and so much more during my short stay. Be sure to ask your regional board member for recommendations on the best taco in the city.

Lastly, I would recognize there are far too many people to thank that I could possibly include in this message. But for every symposium organizer, speaker, poster presenter, moderator, committee member, committee chair, industry partner, event organizer, competition judge, education day volunteers, activity organizers, and numerous other volunteers at this meeting, I want to deeply thank you. I truly appreciate the hard work and efforts that make this a wonderful event that I sincerely look forward to every year.

Kristen Healy, AMCA President

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<https://www.mosquito.org/amca-sustaining-member-list/>

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709

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320

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215

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808

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408

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Entomological Society of America 170 Jennifer Road Annapolis, Maryland 21401 https://entsoc.org/	719
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MGK 7325 Aspen Lane North Minneapolis, Minnesota 55428 https://www.mgk.com/	702

NPD Products Ltd. 2325 Old Second South Midhurst, Not Applicable L9X1P3 https://www.npdproducts.com/us/	820
Oxitec, Ltd. 71 Innovation Drive Milton Park Abingdon, UK	402
Pelsis 135 Region South Drive Jackson, Tennessee 30233	404
Precision X-Ray Inc. 14 New Road Madison, Connecticut 06443 https://precisionxray.com/	716
Puerto Rico Vector Management Association PRVCU - AMVPR PO Box 363475 San Juan http://prvectorcontrol.org/amvpr	715
Rad Source 4907 Golden Parkway Buford, Georgia 30518 www.radsources.com	319
S.C. Johnson & Son, Inc. 1525 Howe St. Racine, Wisconsin 53403 http://www.scjohnson.com	605
Spectrum Brands 1 Rider Trl Plz Dr, Suite 300 Earth City, Missouri 63045	707
Stuck Brands Mosquito Traps 1330 Loop Rd Lancaster, Pennsylvania 17601 (717) 572-9673 http://www.stuckbrands.com	814
Summit Chemical Company 235 S Kresson St Baltimore, MD 21224 www.summitchemical.com	619
Synergetica Changzhou Ltd. 18 Changwu Road Changzhou, Jiangsu 213164	213
Target Specialty Products 15415 Marquardt Ave Santa Fe Springs, CA 90670 www.target-specialty.com	620
Texas Mosquito Control Association P.O. Box 906 Hewitt, Texas 76643	219

The McPherson Companies, Inc. 284 Airport Road Reserve, Louisiana 70084 http://www.mcphersonoil.com	704
Tickkey International, Inc. 115 Carol Street Danbury, Connecticut 06810 https://TickKey.com	717
Valent BioSciences 1910 Innovation Way Suite 100 Libertyville, Illinois 60048 https://www.valentbiosciences.com/publichealth/	606
VDCI Mosquito Management 1320 Brookwood Drive, Suite H Little Rock, Arkansas 72202 https://www.vdci.net/	615
Vector-Borne Disease Centers of Excellence, Training & Evaluation 3138 Comstock Hall Cornell University Ithaca, New York 14853 (607) 255-4475 http://www.cdc.gov/ncezid/dvbd/coevbd/index.html	816
VectorSurv: Vectorborne Disease Surveillance System UC Davis, One Shields Ave, Vet Med: PMI Davis, California 95616 (530) 754-2472 https://vectorsurv.org	317
VeeMAC 7400 SW Barnes Rd, Apt 321 Portland, Oregon 97225 https://veemac.com	217
Veseris 10800 Pecan Park Blvd., Suite 300 Austin, Texas 78750 https://veseris.com/	609

GENERAL INFORMATION

Registration Hours

Located in The Grand Hall

Monday, March 4	10:00 am – 6:30 pm
Tuesday, March 5	7:00 am – 5:30 pm
Wednesday, March 6	7:00 am – 5:30 pm
Thursday, March 7	7:30 am – 4:00 pm

Speaker Ready Room Hours

Located in Pearl 2

Monday, March 4	1:00 pm – 5:00 pm
Tuesday, March 5	7:00 am – 5:30 pm
Wednesday, March 6	7:00 am – 5:30 pm
Thursday, March 7	7:30 am – 4:00 pm

Exhibit Hall Hours

Located in The Grand Hall

Set-up:

Monday, March 4	8:00 am – 3:00 pm
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Viewing Hours:

Monday, March 4	5:00 pm – 8:00 pm
Tuesday, March 5	12:00 pm – 1:45 pm 3:15 pm – 4:00 pm
Wednesday, March 6	10:00 am – 10:45 am 12:15 pm – 4:00 pm

Breakdown:

Wednesday, March 6	5:30 pm – 12:00 am
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Poster Presentations

Poster presenters must locate their poster numbers in this program book and place their posters on the assigned poster boards in the exhibit hall. Presenters are required to attend their posters during the Poster Session on Wednesday, March 6 from 12:15 pm-1:45 pm.

Poster Set-up:

Monday, March 4	2:00 pm – 4:00 pm
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Poster Removal:

Wednesday, March 6	5:30 pm – 7:30 pm
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Posters not removed by 7:30 pm on Wednesday will be placed behind the registration desk and will be discarded if not claimed by 9:30 am on Friday.

ADA Requests

AMCA fully complies with the legal requirements of the Americans with Disabilities Act. If any participant of the Annual Meeting is in need of an accommodation, he/she should notify the AMCA registration counter and indicate the type of assistance needed. AMCA cannot ensure the availability of appropriate assistance without prior notice.

Breaks

AMCA will NOT provide coffee prior to the start of morning sessions, so please plan accordingly. Sponsored beverage breaks are offered daily. Please refer to the program for times.

Education Day

The Annual AMCA Education Day is on Wednesday, March 6th. AMCA Volunteers from the AMCA Education committee will provide programs to students. Students from all grade levels will participate in activities related to mosquitoes and mosquito biology, their habitats, and will have the opportunity to have hands-on experiences with various mosquito and mosquito control related items. For information, please see AMCA registration counter.

Latin American Symposium

The 34th Annual Latin American Symposium, held on Thursday, has simultaneous English translation of Spanish oral presentations. This is a unique opportunity to learn about mosquito research and control in Latin America. Please see the technician in the back of the room for a headset.

Meals

The Monday reception is NOT a full dinner. The Welcome Networking Breakfast will be served on Wednesday morning and is included in your ticket. Lunch will be served on Tuesday and Wednesday in the Expo Hall. The banquet on Thursday is a full dinner at the 90th Annual meeting.

Meeting Evaluations

The Annual Meeting evaluation will be emailed to all attendees following the meeting. We encourage all attendees to complete the survey so we can continue to improve the AMCA Annual Meeting.

Member Meeting

The Annual Member Meeting is on Friday from 8:30 am – 9:30 am in D3. The member/business meeting updates the membership on AMCA finances and committee activities as well as new initiatives. All members are encouraged to attend.

Moderators

Moderators are required to arrive in their session room at least 10 minutes prior to the start of the session to review the slides, timers, and Audio with the AV Staff. Papers must be given at the scheduled times. If a paper is canceled or a speaker does not appear, do not advance to the next speaker, but use the open time for questions and discussion.

Name Badge

A name badge is required for admission to all meeting sessions and the Exhibit Hall. Drink tickets will be given Prior to the function they are intended for such as the Welcome Reception and Pre-Banquet Social.

Speaker On-Site Instructions

AMCA requires all presenters to use PowerPoint. Other formats may not be supported.

All slides should be uploaded prior to arriving at the Conference by the deadline of February 26th.

All Presenters are required to bring their own memory device to the Speaker Ready Room, no later than the day prior to review your presentations or make any last-minute changes. During this time, you are able to edit your presentations. Please ensure all fonts appear as expected and that all sound or video clips are working properly.

Note: The presentation upload deadline is a week prior so we can set the network for all rooms and presentations. Last-minute uploads and slides not previewed in the speaker-ready room onsite are not guaranteed to work properly in the rooms. Please come prepared.

Report to your session room at least 10 minutes before the scheduled start of the session. Session moderators will start and end the session on time, and each paper must be presented exactly at its scheduled time. If you have a name that is often mispronounced, please provide the correct pronunciation to your session moderator(s) prior to the start of your session.

Trustee Tour Pick-up

All trustees, commissioners, and their companions should report to the front driveway of the hotel for the bus on Wednesday morning at 8:15 am. Please bring your badge to enter the bus. Bus will return by 3pm.

Young Professionals Activities

The AMCA Young Professionals will be hosting numerous events throughout the Annual Meeting. Please see the listing of events below. If you have any questions regarding these activities, please visit the AMCA Young Professionals Booth 808 located in the Exhibit Hall.

Young Professionals Welcome Dinner

This YP-only event is sponsored by Clark and requires a ticket for entry, as space is limited. Visit the YP booth to pick up your ticket (if you've RSVP'd) or to inquire about availability.

Young Professionals Discussion Panel and Career

Round-Table Symposium will be held on Wednesday, March 6 from 1:45 pm - 5:30 pm in D2 meeting room. The symposium will include a panel discussion followed by round-table career discussions with field experts. Check program for more symposium details.

Young Professionals Social will be held on Wednesday, March 6 from 5:30 pm to 6:30 pm in the Press Club meeting room. The event will include a one-hour open bar social and light hors d'oeuvres. The event is sponsored by Valent BioSciences. Check program for more details.

Young Professionals Promo Booth will be hosted in the Exhibit Hall at Booth 808. Come see us during breaks for free games, prizes, and group information. Also, don't forget to bid on our art auction! All proceeds go to the YP Fund.

AMCA RESEARCH FUND

2024 RESEARCH FUND AWARDEE

Bradley Willenberg, PhD, “New Attractive Toxic Sugar Baits with Propylene Glycol as a Sugar Substitute and Toxicant in Capillary Alginate Gel Biomaterials” College of Medicine, University of Central Florida Research Foundation

2023 RESEARCH FUND AWARDEES

Emily Mader, “Analysis of perceived risks and benefits of mosquito abatement and personal protection strategies.” Northeast Regional Center for Excellence in Vector-Borne Diseases, Cornell University

Julianne Miranda-Bermúdez, PhD, “Infrastructure to evaluate community engagement efforts for an Integrated Vector Management Program.” Puerto Rico Vector Control Unit

The AMCA Research Fund (AMCARF) seeks to fund research that will lead to new tools and strategies for mosquito surveillance and control, ultimately protecting the public from mosquito-borne disease and discomfort from mosquito bites.

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 at <https://www.mosquito.org/research-fund/> or by check to:



AMCA Research Fund
One Capitol Mall, Suite 800
Sacramento, CA 95814

AMCA would like to thank the following contributors (since February 23, 2018):

Angela Beehler
Animas Mosquito Control District
Anonymous Contributor
Azelis
Canyon County Mosquito Abatement District
Carolee Lawrence
Coachella Valley Mosquito and Vector Control District
Colby Colona
Contra Costa Mosquito and Vector Control District
Dana Price
David Brown

Continued next page

Edmund Norris
Gary Goodman
Glen Babcock
Herff Jones
Jason Pitts
Jennifer Gordon
Jennifer Henke
Keira Lucas
Kelly Deutsch
Kristen Healy
Laura Harrington
London Foggers, Inc
Michael Morganti
Michigan Mosquito Control Association
Natasha Agramonte
Northwest Mosquito and Vector Control District
Peter Bonkrude
Priscilla Matton
Rui-De Xue
Sacramento-Yolo Mosquito and Vector Control District
Sarah Wheeler
Schools First Federal Credit Union
Sean Healy
Sherry Mello
Valent BioSciences
Vectech, Inc.



90TH ANNUAL MEETING
At-A-Glance
Monday, March 4, 2024

MONDAY, MARCH 4

- | | |
|---------------------------|---|
| 10:00 am – 6:30 pm | Registration
<i>Grand Hall</i> |
| 1:00 pm – 5:00 pm | Speaker Ready Room
<i>Pearl 2</i> |
| 1:00 pm – 5:00 pm | Committee Meetings
<i>A1, A2, A3, Pearl 1</i> |
| 2:00 pm – 4:00 pm | Poster Set-up
<i>Grand Hall</i> |
| 5:00 pm – 8:00 pm | Grand Opening of the Exhibit Hall and Welcome Reception
<i>Grand Hall</i>
(Badge Required for Entry) |

7:30 AM - 3:00 PM

Pre-Conference Workshop: Mosquito Adulticiding Perceptions Workshop *(Invite Only)*

Moderator: Catlin O'Shaughnessy Coffrin

Meeting Room: D2

8:00 AM - 3:00 PM

Pre-Conference Workshop: Bottle Bioassay
(Pre-Registration Required)

Moderator: Janet McAllister

Meeting Room: Press Club

This session is for AMCA members who are interested in improving mosquito insecticide resistance monitoring methods and capacity, understanding the link between bioassay resistance data and operational control outcomes, and detecting control failures due to resistance. Our national Insecticide Resistance Working Group has been developing priority areas for further exploration and will present some of the WG outcomes for discussion and refinement of next steps."

8:30 AM - 3:00 PM

Pre-Conference Workshop: Young Professionals - Placing your best tarsi forward: How to be prepared for anything

Moderator: Drew Lysaker, Chloe Wang, Kyndall Dye-Braumuller, Jasmine Che, Mitchell Kirsch

Meeting Room:

D3

Sponsored By



1:00 PM - 5:00 PM***Committee Meeting**

**unless otherwise noted*

- 1:00 Publications Committee Meeting
Room: A1
- 1:00 Membership Committee Meeting
Room: A2
- 2:00 JAMCA Committee Meeting
Room: A1
- 2:00 Member Education & Training Committee Meeting
Room: A2
- 2:00 Science & Technology Committee Meeting
Room: A3
- 2:00 Bylaws Committee Meeting
Room: Pearl 1
- 3:00 Public Relations Committee Meeting
Room: A1
- 3:00 Finance Committee Meeting
Room: A2
- 3:00 Young Professionals Committee Meeting
Room: A3
- 4:00 All Committee Gathering

5:00 PM - 8:00 PM**Grand Opening of Exhibit Hall & Welcome Reception**

The Grand Hall



90TH ANNUAL MEETING
At-A-Glance
Tuesday, March 5, 2024

7:00 am – 5:30 pm	Registration <i>Grand Hall</i>
7:00 am – 5:30 pm	Speaker Ready Room <i>Pearl 2</i>
8:00 am – 12:00 pm	Plenary Session <i>Dallas BC</i>
10:00 am – 10:30 am	Refreshment Break <i>Grand Hall</i>
12:00 pm – 1:45 pm	Lunch with Exhibitors <i>Grand Hall</i>
1:45 pm – 3:15 pm	Afternoon Sessions <ul style="list-style-type: none">• Legislative and Regulatory Symposium I <i>A3</i>• Mosquito Lightning Symposium <i>Dallas BC</i>• Operations I <i>D2</i>• Student Competition I <i>A1</i>• Using NASA Satellite Data to Enhance Understanding of Vector Habitats and Disease Transmission Symposium <i>D3</i>
3:15 pm – 4:00 pm	Refreshment Break/Ice Cream Social <i>Grand Hall</i> (Badge Required)
4:00 pm – 5:30 pm	Afternoon Sessions <i>(continued)</i> <ul style="list-style-type: none">• Arboviral Surveillance throughout the United States Symposium <i>A2</i>• Legislative and Regulatory Symposium II <i>A3</i>• Operations II <i>D2</i>• Student Competition II <i>A1</i>

TUESDAY, MARCH 5

- What Have We Learned: A Conversation on 15 Years of Spinosad Use in Public Health Symposium
D3

5:45 pm – 7:15 pm

Latin American Discussion
D3

TUESDAY, MARCH 5

8:00 AM - 12:00 PM

Plenary Session

**unless otherwise noted*

Moderator: Kristen Healy

Meeting Room: Dallas BC

- 8:10 Program Announcements
Herff Jones
- 8:15 Presidential Address
Kristen Healy
- 8:35 Awards Presentation
Kristen Healy
- 9:05 In Memoriam of Mir S. Mulla, Ph.D. (February 15, 1925 – January 29, 2023): Man of the Achieving Family, Mentor, Scientist, Community Activist, Friend, Colleague and More
Tianyun “Steven” Su
- 10:30 Washington D.C. Legislation
Mark Clifton
- 11:00 Vector-Borne Diseases in the U.S. in an Age of Opportunity
Ben Beard

10:00 AM - 10:30 AM

Break in Exhibit Hall

The Grand Hall

Sponsored By



Agricultural &
Environmental
Solutions

12:00 PM - 1:45 PM

Lunch and Exhibits Open

The Grand Hall

Sponsored By



SCJohnson

**Center for
Insect Science**
and Family Health

1:45 PM - 3:15 PM*

Afternoon Session

**unless otherwise noted*

Legislative and Regulatory Symposium I

Moderator: David Brown

1:45 PM - 3:15 PM

Meeting Room: A3

- 1:45 1 USEPA Updates to the Endangered Species Act Workplan and the Vulnerable Species Pilot Project
Jan Matuszko
- 2:30 2 Refinement of AGDISP for wide-area space sprays in mosquito control
Jane Bonds
- 2:45 3 CDC update on the National Public Health Strategy for the Prevention and Control of Vector-Borne Diseases in Humans
Lyle Petersen

Mosquito Lightning Symposium

Moderator: Ary Faraji

1:45 PM - 3:15 PM

Meeting Room: Dallas BC

- 1:45 5 Where to publish? An entomologists journey to becoming an expert cardiologist, gerontologist, oncologist and more...
Ary Faraji
- 1:45 6 Bee rants and ag grants
Zach Holbert-Watson, Charles Broschart
- 1:45 7 The host associations of *Uranotaenia sapphirina*
Lawrence Reeves
- 1:45 8 Quick tour of Anastasia Mosquito Control District's new Vector-borne Disease Education and Research Center
Whitney Qualls, Richard Weaver
- 1:45 9 To what end?
Brian Byrd
- 1:45 10 Revealing cryptic bloodmeals through metabarcoding: from triatomines to soft ticks to mosquitoes.
Gabriel Hamer
- 1:45 11 Back to the Future: Quantifying Wing Wear as a Method to Measure the Age Structure of Mosquito Populations
Brian Foy
- 1:45 12 Harvesting insects from naturally abundant areas for animal feed and pathogen surveillance
Lee Cohnstaedt

TUESDAY

- 1:45 13 Scatology Meets Arbovirology: Can Testing Wastewater Augment Traditional West Nile Virus Surveillance?
Lyle Petersen
- 1:45 14 Baculoviruses: Master Manipulators of Moths
Nathaniel Byers
- 1:45 15 Malaria in Africa: A Global Call to Action
Beth Ranson
- 1:45 16 Treating outside the box, using spatial models to define adulticide treatment surfaces
Kevin A. Caillouet, Hieu Duong
- 1:45 17 Of breeding
Casey Crockett, Roxanne Connelly
- 1:45 18 A Connecticut Yankee in a mosquito's court: mapping mosquito and arbovirus activity in Connecticut
Joseph McMillan
- 1:45 19 Plugged-in: male Anopheles have it all figured out
Laura Harrington
- 1:45 20 Antibody responses against salivary proteins of Ae. albopictus and Cx. quinquefasciatus in Northern Cardinals in Louisiana
Berlin Iondono-Renteria, Kevin A. Caillouet, Alyssa Schwinn, Sara Harris, Zoe Jacobs, Matt Duckworth, Jane de Verges, Sam Jameson, Dawn Wesson
- 1:45 21 The First Tick Surveillance Program in Wyoming, Oh What We Have to Learn
Mikenna Smith
- 1:45 22 Culex antillumagnorum: dogma smasher
Donald Yee
- 1:45 23 How to shed 40 pounds in one day: Converting traps to lithium batteries.
Gregory Williams

Operations I

Moderator: Chloe Wang

1:45 PM - 3:15 PM

Meeting Room: D2

- 1:45 24 Insights from the Chicken Warden at Beach Mosquito Control District
Emily E. Evans
- 1:55 25 Selecting target wild bird species for West Nile virus serosurveillance
Elise T. Nishikawa, Stephanie Turnstone, Maximae Vigilant
- 2:05 26 Enhancing Local Preparedness: Mobilizing Volunteer Resources Against Local Transmission of Aedes-borne Disease in Los Angeles County
Steven Vetrone

- 2:15 27 Evaluating efficacy of pre-season larvicide treatment on WNV vectors in Cook County, IL
Cassandra Durden
- 2:25 28 Assessing Control Measures for Managing *Aedes aegypti*
Gabriela Perezchica Harvey, Kim Y. Hung, Jennifer A. Henke, Gerald Chuzel, Melissa Snelling, Jacob Tarango, Gregorio Alvarado, Tammy C. Gordon
- 2:35 29 An optimist sees an opportunity with every difficulty: the Lee County Mosquito Control District shifts from UAS to Helicopters for LiDAR Operations.
Aaron Lloyd, Nick Lefkow, David F. Hoel
- 2:45 30 VectorSurv: New Developments for Data Management and Evidence-based Vector Control Decisions
Olivia Winokur
- 2:55 31 From Salt Lake to Mali, an introduction of western mosquito control in Mali, Africa
Jason Hardman
- 3:05 32 A data-driven approach to “rightsizing” mosquito surveillance data collection
Rebecca Heinig

Student Competition I

Moderator: Casey Crockett

1:45 PM - 3:15 PM

Meeting Room: A1

- 1:45 33 Adapting standard mosquito research methods for monitoring insecticide susceptibility and resistance in *Culicoides* biting midges
Vilma Montenegro, Nathan Burkett-Cadena, Eva Buckner
- 1:55 34 Effects of Elevated Ambient Temperature on Response of a Mosquito Citronellal Receptor: Implications for the Efficacy of Mosquito Repellents
Yeaun Park, Peter M. Piermarini
- 2:05 35 Evaluation of silver nanoparticles as a control tool against adult mosquito vectors
Kai Blore
- 2:25 37 A Comprehensive Mosquito Species Richness Study in Southern Indiana show the Establishment of Medically Important and Invasive Species
Sajjad Khan
- 2:35 38 An assessment of adult mosquito trapping methods and molecular identification of blood meals in Cameron Park Zoo, Waco Tx.
Dhivya Rajamanickam, Jason Pitts
- 2:45 39 Characterizing *Wolbachia* prevalence across mosquito host genomes over a latitudinal gradient
Rebecca (Becky) E. Cloud, Patrick Irwin, Carla Cáceres

- 2:55 40 Incriminating vectors of deer malaria (*Plasmodium odocoilei*) in a Florida deer farm
Morgan Rockwell

Using NASA Satellite Data to Enhance Understanding of Vector Habitats and Disease Transmission Symposium

Moderator: Helena Chapman, Laura Judd

1:45 PM - 3:15 PM

Meeting Room: D3

- 1:45 303 Incorporating NASA Earth Science Applications to Monitor Infectious Disease Hotspots
John Haynes
- 2:00 304 Climate Change and Vector-borne Diseases – A National and Global Perspective
Ben Beard
- 2:15 305 VectorSurv: Toward Web-based Forecasting of West Nile Virus Disease Risk
Aynaz Lotfata
- 2:30 306 Mapping Urban Mosquito Microhabitats and Malaria Risk Using Satellite Earth Observations
Michael Wimberly
- 2:45 306 Designing a Global Surveillance and Forecasting System for Selected Vector-borne Diseases
Assaf Anyamba

3:15 PM - 4:00 PM

Break in Exhibit Hall

The Grand Hall

Sponsored By



3:15 PM - 4:00 PM

Ice Cream Social

The Grand Hall

Sponsored By



4:00 PM - 5:30 PM*

Afternoon Session

**unless otherwise noted*

Arboviral Surveillance throughout the United States Symposium

Moderator: Steven Peper

4:00 PM - 5:30 PM

Meeting Room: A2

- 4:00 46 An Analysis of West Nile Virus Risk Thresholds and Epi-
zootic Transmission Dynamics in a Two-Vector System
Mark Clifton, Haley Johnson, Ana Erkapic,
Megan Fritz, Thea Bliss, Susan Paskewitz, Lyric
Bartholomay
- 4:15 47 Arboviral surveillance and outbreak response in Cali-
fornia
Christopher M. Barker, Ying Fang, Sandra
Garcia, Tina Feiszli, Hannah Romo, Vicki Kramer
- 4:30 48 Mosquito Testing in Texas
Bethany Bolling
- 4:45 49 Mosquito-Borne Disease Surveillance in Florida
Andrea Morrison, Rebecca Zimler, Alexis LaCrue,
Maribel Castaneda, Edgar Kopp, Lea Heberlein,
Danielle Stanek
- 5:00 50 Expanding Surveillance and Laboratory Capacity in the
Canyon County Mosquito Abatement District
Heather Ward

Legislative and Regulatory Roundtable Event

Moderator: Nina M. Dacko

4:00 PM - 5:30 PM

Meeting Room: A3

Operations II

Moderator: Jason Fritz

4:00 PM - 5:30 PM

Meeting Room: D2

- 4:00 51 Re-emergence of *Aedes aegypti* in the Florida Panhandle
Kaylyn Pearce
- 4:10 52 Welcome to the Neighborhood: Expanding Mosquito
Surveillance in Central Texas
Jason Fritz
- 4:30 53 Not your average landing rate count: Strategies for
dealing with surveillance numbers that aren't actually
numbers
Rebecca Heinig, Atom Rosales, Keira J. Lucas

TUESDAY

- 4:40 54 Aerial application of bacterial larvicides for control of avian malaria in Hawaii
Serena Zhao, Cali Crampton, Hanna Mounce, Bryn Webber, Christa Seidl, Lindsey Nietmann, Joe Iburg
- 4:50 55 Climate Change and Mosquito Control: The Effect of Atmospheric River Events in California's Central Valley
Broox Boze, Vicki Kramer
- 5:00 56 Hurricanes, Politics and Mosquitoes: The 3-Year Journey of Expanding the Boundaries of the Collier Mosquito Control District
Keira J. Lucas, Jonathon Little, Patrick Linn
- 5:10 57 State-mandated Security Standards for Drone Use and Its Impact on Mosquito Control Operations in Florida
Keira J. Lucas, Atom Rosales
- 5:20 58 The National Special District Coalition
Ryan Clausnitzer, Cole Arreola-Karr

Student Competition II

Moderator: Casey Crockett

4:00 PM - 5:30 PM

Meeting Room: A1

- 4:00 59 3D Printing Mosquito Control: Manufacturing Unique Solutions
Noah Wehner, Atom Rosales, Keira J. Lucas
- 4:10 60 Identifying Biochemical Biomarkers for Pyrethroid Resistance in *Aedes aegypti* Mosquitoes
Carla-Cristina Edwards, Erin Taylor T. Kelly, Lindsey Mack, Geoffrey Attardo
- 4:20 61 Evaluating the toxic effects of hemp extracts against *Aedes aegypti* mosquitoes
Erick Martinez, Peter M. Piermarini
- 4:30 62 Exploring the role of vegetation in the interactions between invasive *Aedes* species in southern California
Benjamin L. Nyman, Alec Gerry, Kurt Anderson
- 4:40 63 Tick Control by the Pros: Effectiveness of Vector Control Techniques Used by The Commercial Pest Control Industry on *Ixodes scapularis* Nymphs in Wisconsin Backyards
Zackary Sieb, Susan Paskewitz, Lyric Bartholomay, Tela Zembsch, Bradley Tucker
- 4:50 299 Evaluating the impact of mosquito control strategies on the environment and public health
Hannah Dehus, David Narayanan, Megan E. Meuti, Mary Gardiner
- 5:00 302 Investigation of Target-site and Metabolic Resistance in Florida *Culex quinquefasciatus*
TJ Fedirko, Alden S. Estep, Neil D. Sanscrainte, Ana Romero-Weaver, Eva Buckner

What Have We Learned: A Conversation on 15 Years of Spinosad Use in Public Health Symposium

Moderator: Miranda Schield

4:00 PM - 5:30 PM

Meeting Room: D3

- | | | |
|------|-----|--|
| 4:00 | 114 | It Can't Be Done – Daring to Formulate Spinosyns for Public Health
J. Lyell Clarke |
| 4:15 | 115 | Utilization of organic approved spinosad-based larvicides by the Sacramento-Yolo Mosquito and Vector Control District
Steve Ramos |
| 4:25 | 116 | Deploying spinosad for pre-treatment larval control management strategies in the Cayman Islands
Kris New , Alan Wheeler, Derek Drews |
| 4:35 | 117 | How Spinosad enabled the operational journey from single to multi-brood larvicides
Adriane Rogers |
| 4:45 | 118 | Drone use with Natular G30
Jared Arnold |
| 4:55 | 119 | Operational Use of Spinosad Over Diverse Habitats in Washington State
Carina LeFave , Ann Belchik-Moser |
| 5:05 | 120 | The use of Spinosad on Florida Department of Environmental Protection and United States Fish and Wildlife lands in Lee County, Florida.
Edward W. Foley , David F. Hoel, Aaron Lloyd |
| 5:15 | 121 | Efficacy and nontarget effects of a spinosad-based larvicide in Minnesota vernal pools and cattail marshes
Scott Larson , Diann Crane |

5:45 PM - 7:15 PM

Latin American Discussion

Meeting Room: D3

TUESDAY



90TH ANNUAL MEETING
At-A-Glance

Wednesday, March 6, 2024

- 7:00 am – 5:30 pm** **Registration**
Grand Hall
- 7:00 am – 5:30 pm** **Speaker Ready Room**
Pearl 2
- 7:00 am – 8:15 am** **Welcome Networking Breakfast**
Dallas BC
- 8:00 am- 2:00 pm** **Education Day**
Off-site Event
- 9:30 am- 3:00 pm** **Trustee/Commissioner Tour**
Off-site Event
(Badge Required)
- 8:30 am – 10:00 am** **Morning Sessions**
- Association/Society and Collaboration Symposium I
D3
 - Cryptic Mosquitoes: Hide and Seek and Treat? Symposium I
A2
 - Insecticide Resistance Knowledge Gaps and Needs Roundtable (Pre Registration Required)
D2
 - Lesser Known Arboviruses Symposium I
A3
 - Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium I
A1
- 10:00 am – 10:45 am** **Refreshment Break**
Grand Hall
- 10:45 am – 12:15 pm** **Morning Sessions (continued)**
- Cryptic Mosquitoes: Hide and Seek and Treat? Symposium II
A2
 - Intern to Imago: Student Professional Development at Mosquito Control Districts Symposium
D2
 - Latin American Student Competition I
D3
 - Lesser Known Arboviruses Symposium II
A3

Continued next page

- Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium II
A1

12:15 pm – 1:45 pm **Poster & Latin American Poster Session and Lunch with Exhibitors**
Grand Hall

12:15 pm – 4:00 pm **Exhibitor Hall Open**
Grand Hall

1:45 pm – 3:15 pm **Afternoon Sessions**

- Breaking news! AMCA Launches FREE Virtual Training Program about Integrated Mosquito Management Symposium
A3
- Disease & Vector Studies I
A1
- Latin American Student Competition II
D3
- UAS Ops in Mosquito Control Symposium I
A2
- Young Professionals Symposium: Panel
D2

3:15 pm – 4:00 pm **Refreshment Break and Donut Social**
Grand Hall

4:00 pm – 5:00 pm **Vendor Meeting** (*Invitation Only Event*)
Pearl 4

4:00 pm – 5:30 pm **Afternoon Sessions** (*continued*)

- Artificial Intelligence in Mosquito and Vector Control/Behavior/Biology/Genetics
D3
- Disease & Vector Studies II
A1
- From Buzz to Bust: The Future of Mosquito Surveillance for Innovative Control Strategies Symposium
A3
- UAS Ops in Mosquito Control Symposium II
A2
- Young Professionals Symposium: Career Roundtables
D2

5:30 pm – 6:30 pm **Young Professionals Social**
Press Club
(*Invitation Only Event*)

6:30 pm – 7:30 pm **Past Presidents Reception**
Hotel Suite
(*Invitation Only Event*)

7:00 AM - 8:15 AM Welcome Networking Breakfast

Dallas BC

8:00 AM - 3:00 PM

Education Day

Off Site

9:30 AM - 3:00 PM

Trustee/Commissioner Tour

Bus Loading

Sponsored By



8:30 AM - 10:00 AM*

Morning Session

**unless otherwise noted*

Association/Society and Collaboration Symposium I

Moderator: Rui-De Xue

8:30 AM - 10:00 AM

Meeting Room: D3

- 8:30 72 Introduction about the symposium of association collaborations
Rui-De Xue
- 8:35 69 How Collaboration Across Vector Control Affects Local Health Departments' Work
Christine Phan
- 8:50 70 Centers for Disease Control and Prevention collaborations with societies and associations: promoting good vector control practices broadly and exponentially.
Roxanne Connelly
- 9:10 71 Finding Common Goals to Create Collective Impact: AMCA's Role in Collaboration
Megan MacNee
- 9:30 73 Society for Vector Ecology
Michelle Brown
- 9:45 74 Vector-Borne Disease Network: Creating one tent for vector advocacy
Erin Cadwalader

Cryptic Mosquitoes: Hide and Seek and Treat? Symposium I

Moderator: Nicole Foley

8:30 AM - 10:00 AM

Meeting Room: A2

- 8:30 75 Cryptic habitat of *Culiseta melanura* in Massachusetts
Priscilla Matton

- 8:45 76 *Culex* Soup in the Northern Suburbs of Chicago, IL: Hunting down their cryptic habitats
Patrick Irwin
- 9:00 77 Hunting Down Sewer Mosquitoes
Justin Harbison
- 9:15 78 Updated molecular assay distinguishes *Culex pipiens* complex from *Culex restuans*
Linda Kothera
- 9:30 79 The Importance of Accurate Mosquito Identification
Dominic A. Rose
- 9:45 80 La Crosse virus vectors in Appalachia: where do they come from, where do they go?
Brian Byrd, Joseph Davis, Mary Nordgulen, Kaylin Lewandowski, Madeleine Craig, Charles Sither

Lesser Known Arboviruses Symposium I

Moderator: Ary Faraji, Goudarz Molaei, Ted Andreadis

8:30 AM - 10:00 AM

Meeting Room: A3

- 8:30 81 Lesser Known Arboviruses Impacting Animal and Human Health
Ary Faraji
- 8:35 82 *Orbivirus* epidemiology: What are bluetongue, epizootic hemorrhagic disease, and African horse sickness viruses?
Lee Cohnstaedt
- 8:50 83 Cache Valley Virus: An Underestimated Mosquito-Borne Virus with Deadly Potential
Amanda Calvert
- 9:05 84 Everglades virus: an underrecognized disease-causing subtype of Venezuelan equine encephalitis virus endemic to Florida, USA
Nathan Burkett-Cadena, Amy Vittor, Scott Weaver, Durland Fish
- 9:20 85 Jamestown Virus Comes into View: Understanding the Threat from an Underrecognized Arbovirus
Philip Armstrong, John Shepard
- 9:35 86 La Crosse virus neuroinvasive disease: the kids aren't alright
Corey Day

Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium I

Moderator: Beth Ranson

8:30 AM - 10:00 AM

Meeting Room: A1

- 8:30 42 Considerations for Effective Aerial Adulticide Applications
Mark D. Latham
- 8:50 43 "ReMoa Tri Rising to New Heights with Aerial Applications"
Leanne Lake

- 9:10 44 Operational evaluation of ReMoa Tri against pyrethroid- and naled-resistant arbovirus vector species in Collier County, Florida
Rebecca Heinig, Katie Williams, Casey Crockett, Rachel Bales, Decyo S. McDuffie, Hunter Martin, Keira J. Lucas
- 9:30 45 “ReMoa Tri: Mortality Response of Local *Culex* Mosquitoes Using Ground Ultra-Low Volume Applications in a Cage Field Trial”
Jasmine Che

Insecticide Resistance Knowledge Gaps and Needs Roundtable (Pre Registration Required)

Moderator: Laura Harrington

8:30 AM – 10:00 AM

Meeting Room: D2

This session is for AMCA members who are interested in improving mosquito insecticide resistance monitoring methods and capacity, understanding the link between bioassay resistance data and operational control outcomes, and detecting control failures due to resistance. Our national Insecticide Resistance Working Group has been developing priority areas for further exploration and will present some of the WG outcomes for discussion and refinement of next steps.

10:00 AM - 10:45 AM Break in Exhibit Hall

The Grand Hall

Sponsored By



10:45 AM - 12:15 PM* Morning Session

**unless otherwise noted*

Cryptic Mosquitoes: Hide and Seek and Treat? Symposium II

Moderator: Nicole Foley

10:45 AM - 12:15 PM

Meeting Room: A2

- 10:45 87 Oviposition rates and diversity differences in container breeding mosquitoes of La Crosse, WI.
Drew Lysaker
- 11:00 88 Larval Ecology of invasive *Aedes notoscriptus* in the San Gabriel Valley, California.
Jamie Mangan
- 11:15 89 The identification and rapid expansion of *Aedes aegypti* in Clark County, Nevada: 2017 - 2023.
Vivek Raman
- 11:30 90 Cryptic Mosquito sites in Maricopa County.
James Will

- 11:45 91 Tempest in a container: how socioeconomic factors and Hurricanes Irma and Maria affected population dynamics and nutrient content of *Aedes aegypti* in San Juan Puerto Rico, U.S.A.
Donald Yee, Nicole Scavo, Limarie Reyes-Torres
- 12:00 92 Lee County Mosquito Control's egg-cellent adventure: Using oviposition surveillance as a component of the sterile insect technique.
Steven Stenhouse, Rachel Morreale, Johanna Bajonero, Aaron Lloyd, Danilo Carvalho, David F. Hoel

Intern to Imago: Student Professional Development at Mosquito Control Districts Symposium

Moderator: Whitney Qualls, Michele Rehbein

10:45 AM - 12:15 PM

Meeting Room: D2

- 10:45 93 An overview of internship opportunities offered at the Centers for Disease Control and Prevention's Division of Vector-borne Diseases.
Roxanne Connelly
- 11:00 94 Bridging the DEI Gap in Entomology.
Elynn Owens
- 11:15 95 Growing Professionals Among the Mosquitoes at Salt Lake City Mosquito Abatement District.
Michele Rehbein
- 11:30 96 High School Students and College Students and Graduate Students Oh My!: How to Create an Internship Program that Spans Different Educational Levels.
Whitney Qualls
- 11:45 97 Interested in working within the federal government? Consider a fellowship with Oak Ridge Institute for Science and Education.
Nicole Foley
- 11:55 98 From Water to Land: Evolving Career Skills and Interest at the Salt Lake City Mosquito Abatement District.
Gavin Maes
- 12:05 99 Public Health Entomology for All Fellowship Experience.
Cassandra Durden

Latin American Student Competition I

Moderator: Catalina Alfonso-Parra, Griffith S. Lizarraga

10:45 AM - 12:15 PM

Meeting Room: D3

- 10:45 100 Unveiling the miRNomic paradigms for *Aedes aegypti* control.
Mariana Jimenez
- 10:55 101 Behavioral profile following exposure to a *de novo* molecule.
Susan Martinez, Iram Rodriguez-Sanchez, Gerardo Trujillo
- 11:05 102 Differential effects of sonic frequencies on *Aedes aegypti* development in vitro.

Vanessa Vargas, Gerardo Trujillo, Mariana Jimenez, Iram Rodriguez-Sanchez

- 11:15 103 An experimental house model for evaluating mosquito repellent formulations against *Aedes aegypti* and *Aedes albopictus*.

Devany Contreras, Mariana Jimenez, Iram Rodriguez-Sanchez, Gerardo Trujillo

- 11:25 104 Metabolomic profiling of *Aedes aegypti* under different nutritional approaches.

Cindy Gonzalez, Mariana Jimenez, Iram Rodriguez-Sanchez, Gerardo Trujillo

- 11:35 105 Oviposition-deterrent activity of plant extracts against *Aedes aegypti* resistant to conventional insecticides.

Selene Gutierrez-Rodriguez, Jesus A. Davila-Barboza, Beatriz Lopez-Monroy, Iram Rodriguez-Sanchez, Ivan Cordova-Guerrero, Sergio Galindo-Rodriguez, Humberto Quiroz-Martinez, Adriana Flores

- 11:45 106 Testing sterilizing properties of spiromesifen using WHO bottle bioassay.

Daniela Cerda Apresa, Selene Gutierrez-Rodriguez, Jesus A. Davila-Barboza, Beatriz Lopez-Monroy, Ma. Guadalupe Rojas Verde, Iram Rodriguez-Sanchez, Karla Saavedra Rodriguez, Adriana Flores

- 11:55 107 Evaluation of the susceptibility of *Anopheles darlingi* from the State of Amazonas, Brazil, to the insecticides deltamethrin, etofenprox and permethrin.

Quesia Amorim Martins, Cynara M. Rodovalho, Diogo F. Bellinato, Ademir de Jesus Martins-Junior, Priscila Serravale, Patricia Guimarães, José Bento Pereira Lima

- 12:05 108 Insecticide resistance status and *VGSC* polymorphisms in *Aedes albopictus* (Skuse) (Diptera: Culicidae) populations from Mexico.

Andre Gabriel Castro Bautista, Karla Saavedra Rodriguez, Adriana Flores, Beatriz Lopez Monroy, Perla Cecilia Martinez Sanchez, Ildefonso Fernandez Salas, Jesus A. Davila-Barboza

Lesser Known Arboviruses Symposium II

Moderator: Ary Faraji, Goudarz Molaei, Ted Andreadis

10:45 AM - 12:15 PM

Meeting Room: A3

- 10:45 109 The increasing threat of Rift Valley fever virus globalization: strategic guidance for protection and preparation.

Seth Gibson, Kenneth Linthicum, Lee Cohnstaedt, Dana Mitzel, Melinda Rostal, Chad Mire, Assaf Anyamba, Leela Noronha, Heidi Tubbs

- 11:00 110 Snowshoe Hare Virus: Discovery, Distribution, Vector and Host Associations, and Medical Significance.

Edward D. Walker, Thomas Yuill

- 11:15 111 Emergence and Spread of Heartland and Bourbon Viruses in New York State.

Alan Dupuis, Rachel Lange, Alexander Ciota

- 11:30 112 Colorado tick fever virus: A review of historical literature and research emphasis for a modern era.

Brian Foy, Gregory Ebel, Emma Harris

- 11:45 113 The known unknowns of Powassan virus ecology.
Doug E. Brackney, Chantal Vogels

Variation in pyrethroid resistance and efficacy of triple action adulticide ReMoa Tri Symposium II

Moderator: Beth Ranson

10:45 AM - 12:15 PM

Meeting Room: A1

- 10:45 64 Giving Remoa a Tri: A Virginia cage field trial.
Charles Abadam
- 11:05 65 Evaluation of ReMoa Tri against resistant West Nile virus vector species in a cage-field ground trial in Maricopa County, Arizona.
James Will, John Townsend
- 11:25 66 ReMoa Tri Field Trial in Davis County Utah.
Gary L. Hatch, Stephanie Warburton, Elizabeth Hart
- 11:45 67 Semi-field Evaluations of ReMoa Tri with Backpack ULV.
Jacob Tarango, Kim Y. Hung, Jennifer A. Henke, Gabriela Perezchica Harvey, Melissa Snelling, Arturo Gutierrez, Michael Esparza, Gonzalo Valadez, John Holick, Leanne Lake, Haley Johnson
- 12:05 68 Tri-ing Times for Resistant Mosquitoes from Coast to Coast due to ReMoa Tri.
Haley Johnson, Leanne Lake, Katie Williams

12:15 PM - 1:15 PM Poster Session

The Grand Hall

- 12:15 P1 Testing a combined IIT-SIT to control *Aedes*-borne viral diseases at scale in Yucatan, Mexico
Abdiel Martín-Park, Yamili Contreras-Perera, Silvia Pérez-Carrillo, Azael Che-Mendoza, Henry Puerta-Guardo, Norma Pavía-Ruz, Jorge Palacio-Vargas, Fabián Correa-Morales, Zhiyong Xi, Gonzalo M. Vazquez-Prokopec, Pablo Manrique-Saide
- 12:15 P2 Dose determination and survivorship of X-ray irradiated sterile *Aedes aegypti* mosquitoes: preparation for SIT in West Valley region of San Bernardino County, California
Solomon Birhanie, Jennifer Castellon, Michelle Brown
- 12:15 P3 Selection Pressure for Insecticide Resistance in Major Mosquito Vectors of the Salt River Valley
Don Ward, Mackenna Berg, Mikayla Utnehmer, Silvie Huijben
- 12:15 P4 Role of container periphyton as oviposition attractant to female
Luisa M. Otero Lopez, Roberto Barrera, Eric P. Caragata
- 12:15 P5 Stability of *Wolbachia* wAlbB strain infection through sequential generations of mass-reared *Aedes aegypti* mosquitoes
Mitzi Pérez-Almeida, Silvia Pérez-Carrillo, Henry Puerta-Guardo, Yamili Contreras-Perera, Abdiel Martín-Park, Guadalupe Ayora-Talavera, Pablo Manrique-Saide

- 12:15 P6 Establishment and stability of *Wolbachia* (wAlbB strain) in *Aedes aegypti* populations from the Yucatan Peninsula, México
Yamili Contreras-Perera, Ingrid May-Cab, Silvia Pérez-Carrillo, Mitzi Pérez-Almeida, Henry Puerta-Guardo, Abdiel Martín-Park, Azael Che-Mendoza, Guadalupe Ayora-Talavera, Jorge Palacio-Vargas, Fabián Correa-Morales, Pedro Mis-Ávila, Octavio Ávila-López, Zhiyong Xi, Pablo Manrique-Saide
- 12:15 P7 How do socio-economic factors impact mosquito abundance and diversity in Suburban Neighborhoods?
Timothy McNamara, Estelle Martin
- 12:15 P8 The Effects Of Sublethal Doses Of Pyriproxyfen On Male And Female
Sri Jyosthsna Kancharlapalli, Corey L. Brelsfoard
- 12:15 P9 The Impact of Aromatic Plants on BG Sentinel II Trap Efficacy
Jovana Benavides, B Deegan, Jodi Holeman, Katherine Ramirez
- 12:15 P10 Impact of native and invasive grasses on the behavior of *Aedes aegypti*, vector of dengue and yellow fever virus.
Emily Medelez, Kaleb Martinez, Luis Gonzalez, Pushpa Soti, Christopher Vitek
- 12:15 P11 Elucidating the effects of temperature change on oviposition and progeny viability of *Aedes aegypti* and *Culex tarsalis* mosquitoes
Olivia M. Martinez, Emma Harris, Shelby Cagle, Rebekah Kading
- 12:15 P12 Experimental transmission of Mayaro virus by Florida *Aedes aegypti*
Abdullah Alomar, Barry Alto
- 12:15 P13 The Use of Sentinel Chickens Throughout the United States
Steven Peper
- 12:15 P14 Inter-annual climate variability and its impact on local weather, *Aedes aegypti* dynamics and control, and arbovirus transmission in southern Puerto Rico
Roberto Barrera, Veronica Acevedo-Soto, Manuel Amador, Melissa Marzan-Rodriguez, Laura Adams, Gabriela Paz-Bailey
- 12:15 P15 Establishing a target for vector control programs to prevent dengue virus transmission in Puerto Rico
Veronica Acevedo-Soto, Jose Ruiz-Valcarcel, Luisa Otero-Lopez, Rafael Saavedra, Joanelis Medina, Julianne Miranda, Grayson Brown, Steve Waterman, Gabriela Paz-Bailey, Roberto Barrera
- 12:15 P17 Vector competence of mosquitoes from Texas to Madariaga virus
Danilo Carvalho, Tereza Magalhaes
- 12:15 P18 Incriminating vectors of deer malaria (*Plasmodium odocoilei*) in a Florida deer farm
Morgan Rockwell
- 12:15 P19 Analysis of pollen quantity on flower visiting mosquitoes.
Nalany Richardson, Danica Shannon, Daniel Peach
- 12:15 P20 Mosquito-flower interactions in the Southeast.
Danica Shannon, Nalany Richardson, Daniel Peach

- 12:15 P21 Defining Internal Cut Off Values for Operational Use with the Co-Diagnostics, Inc. Vector Smart™ North American Mosquito West (NAM-w) Multiplex RT-qPCR Assay

Heather Ward

- 12:15 P22 Laboratory evaluation of efficacy of the larvicide spinosad against *Anopheles stephensi* in Jigjiga, Ethiopia

Gabriela Gonzalez-Olvera, Solomon Yared, Esayas Aklilu, Araya Gebresilassie, Wilberth Bibiano-Marin, Azael Che-Mendoza, Oscar David Kirstein, Pablo Manrique-Saide, Gonzalo M. Vazquez-Prokopec

- 12:15 P23 Efficacy evaluation of Natular® DT larvicide in the eastern Amazon region of Brazil.

Josiane N. Müller, Allan Kardec Galardo, Ana Paula Corrêa, Wellington Santos, Tatiane Barbosa, Márcio Cláudio Nunes, Kilder Vidal, José Bento Pereira Lima

12:15 PM - 1:45 PM Latin American Poster Session

The Grand Hall

- 12:15 P24 Residual efficacy of deltamethrin, bendiocarb and pirimiphos-methyl formulations against *Triatoma dimidiata* (Latreille, 1811) applied on substrates typically used in premises of Yucatán, Mexico.

Carlos Arisqueta-Chablé, Wilberth Bibiano-Marin, Anuar Medina-Barreiro, Juan Adolfo Ortiz Rivera, Jorge Palacio-Vargas, Gabriela Gonzalez-Olvera, Azael Che-Mendoza, María Jesús Sánchez, Gonzalo M. Vazquez-Prokopec, Pablo Manrique-Saide

- 12:15 P25 Frequency of resistance to pyrethroids and organophosphates in *Aedes aegypti* populations in the department of Cordoba, Colombia

Ronald Maestre-Serrano, Maria Claudia Atencia-Pineda, Yerson Javier García-Leal, Diana Díaz-Ortiz, Richard Hoyos-López, Alfonso Calderón-Rangel, Paula Pareja-Loaiza, Lisandro Pacheco-Lugo, Pedro Fragoso-Castilla, Adriana Flores

- 12:15 P26 Successful control of *Triatoma dimidiata* with residual application of a microencapsulated formulation of pirimiphos-methyl (Actellic 300cs) in southeast Mexico.

Carlos Arisqueta-Chablé, Wilberth Bibiano-Marin, Azael Che-Mendoza, Guillermo Chan-Perez, Anuar Medina-Barreiro, Norma Pavía-Ruz, Juan Adolfo Ortiz Rivera, Jorge Palacio-Vargas, Fabian Correa-Morales, Hugo Delfín-González, Gabriela Gonzalez-Olvera, María Jesús Sánchez, Gonzalo M. Vazquez-Prokopec, Pablo Manrique-Saide

- 12:15 P27 Lethal doses of insecticides used in vector control programs against *Triatoma dimidiata* (Hemiptera: Reduviidae) using impregnated papers.

Guillermo Chan-Perez, Gabriela Gonzalez-Olvera, Carlos Arisqueta-Chablé, Anuar Medina-Barreiro, Azael Che-Mendoza, Gonzalo M. Vazquez-Prokopec, Pablo Manrique-Saide

WEDNESDAY, MARCH 6, 2024

- 12:15 P28 Evaluation of Novaluron 0.2 G against *Aedes aegypti* in an urban area of Antioquia, Colombia
Guillermo Rua-Uribe, Marcela Quimbayo, Juan David Amaya
- 12:15 P29 Habitat disturbance of Phlebotominae sandfly: Impact on microbiota and Leishmania composition.
Anayansi Valderrama Cumbreira, Luisa Collado, Brigitte Henriquez
- 12:15 P30 First report of *Aedes albopictus* (Skuse, 1894) in the Córdoba department, northern Colombia
Paula Pareja-Loaiza, Maria Claudia Atencia-Pineda, Alfonso Calderón-Rangel, Richard Hoyos-López, Yerson Javier García-Leal, Rafael Bolaños, Ronald Maestre-Serrano
- 12:15 P31 Spatial stratification of entomological risk for dengue transmission in neighborhoods of Asuncion, Paraguay
Guillermo Rua-Uribe, Rodrigo Burgos, Natalia Alvarez
- 12:15 P33 Mapping trends of pyrethroid resistance in *Aedes aegypti* from Mexico.
Kevin A. Ontiveros-Zapata, Magaly Romero-Villarreal, Alan E. Juache-Villagrana, Selene Gutierrez-Rodriguez, Jesus A. Davila-Barboza, Beatriz Lopez-Monroy, Iram Rodriguez-Sanchez, Emma Gomez-Ruiz, Adriana Flores
- 12:15 P32 Targeted indoor residual insecticide applications shift *Aedes aegypti* age structure and arbovirus transmission potential.
Gabriela Gonzalez-Olvera, Oscar David Kirstein, Carlos Culquichicon, Azael Che-Mendoza, Juan Carlos Navarrete Carballo, Joyce Wang, Wilberth Bibiano-Marin, Guadalupe Ayora-Talavera, James Earnest, Henry Puerta-Guardo, Norma Pavía-Ruz, Fabian Correa-Morales, Anuar Medina-Barreiro, Pablo Manrique-Saide, Gonzalo M. Vazquez-Prokopec

12:15 PM - 1:45 PM Lunch

The Grand Hall

12:15 PM - 4:00 PM Exhibits Open

The Grand Hall

1:45 PM - 3:15 PM* Afternoon Session

**unless otherwise noted*

Breaking news! AMCA Launches FREE Virtual Training Program about Integrated Mosquito Management Symposium

Moderator: Jennifer Gordon, Daniel Markowski

1:45 PM - 3:15 PM

Meeting Room: A3

- 1:45 122 The AMCA's NEW Virtual Training Program on Integrated Mosquito Management
Jennifer Gordon, Daniel Markowski
- 1:57 123 Community Engagement in Mosquito Control
Kristen Healy
- 2:10 124 Alexa, What is Arbovirus Surveillance?
Kyndall Dye-Braumuller, Jonathan Darbro
- 2:23 125 Utilizing GIS Mapping and other Data Management Programs in a Mosquito Management Program
Daniel Markowski, Christopher M. Barker
- 2:36 126 Biological Mistakes and Novel Technologies
Constance Darrisaw, Elizabeth Hart
- 2:49 127 The How-tos and What-nots of Adult Mosquito Control
Broox Boze
- 3:02 128 Monitoring and managing insecticide resistance in mosquitoes
Alden S. Estep

Disease & Vector Studies I

Moderator: Sarah Wheeler

1:45 PM - 3:15 PM

Meeting Room: A1

- 1:45 129 West Nile Virus in Tangipahoa Parish. What a Difference a Year Makes!
Colby Colona
- 1:55 130 Resources for arbovirus detection in vectors: support from the Centers for Disease Control and Prevention
Kristen L. Burkhalter
- 2:05 131 Developing mosquito bait-and-kill systems for local control of *Aedes aegypti* and other vector species.
Jason Pitts, Heidi Pullmann-Lindsley, Robert Huff, John Boyi
- 2:15 132 Vector Control and Public Health Response to the First Locally Acquired Dengue Virus Infection in Maricopa County—Arizona, November 2022
John Townsend, Melissa Kretschmer, Jennifer Collins, Ariella Dale, Brenna Garrett, Lia Koski, Karen Zabel, Jessica White, Katie Turnbow, Nicole Busser, James Will, Irene Ruberto, Kathryn Fitzpatrick, Katy Burr, Forrest Jones, Gilberto Santiago, Laura Adams, Nick Staab, Rebecca Sunenshine

WEDNESDAY

- 2:25 133 Development of environmental DNA (eDNA) sampling for arbovirus vector surveillance in southern Nevada
Katharine Major, Vivek Raman, Chad L. Cross, David Greer, Christian De Haan, John Cataline, Joseph Franceschini, Daniel Goldstein, Christopher Begay, Louisa A. Messenger
- 2:35 134 *Wolbachia* and larval competition: impacts on fitness and West Nile virus infection in *Culex quinquefasciatus*
Abdullah Alomar, Barry Alto, Eric P. Caragata
- 2:45 135 *Psorophora ferox* colonization and bionomics.
Robert L. Aldridge, Kenneth Linthicum
- 2:55 136 Mosquito management summary of the 2023 locally acquired malaria infections in Sarasota, Florida.
Wade Brennan
- 3:05 137 Malaria in Florida, a regulatory and historical perspective of the 2023 locally acquired outbreak in Sarasota and Manatee counties
Marah Clark, Jessica L. Ber

Latin American Student Competition II

Moderator: Catalina Alfonso-Parra, Griffith S. Lizarraga

1:45 PM - 3:15 PM

Meeting Room: D3

- 1:45 138 Genetic diversity and population structure of *Aedes aegypti* (L.) in the main areas of dengue transmission in México.
Damaris Luis Solis, Angel David Garza Robledo, Adriana Flores, Jesus A. Davila-Barboza, Beatriz Lopez-Monroy
- 1:55 140 Impact of xenobiotic exposure in *aedes aegypti* (l.) On resistance to deltamethrin.
Mizael Gonzalez-Escandon, Beatriz Lopez-Monroy, Adriana Flores, Humberto Quiroz-Martinez, Ildefonso Fernandez-Salas, Jesus A. Davila-Barboza
- 2:05 141 Genetic structure and *kdr* mutations in *Aedes aegypti* populations along a road crossing the Amazon Forest in Amapá State, Brazil
Barbara Souza, Leticia Lima, Allan Gallardo, Vincent Corbel, Jose Bento Lima, Ademir Martins
- 2:15 142 Metabolic mechanisms associated with deltamethrin and bifenthrin resistance in *Aedes aegypti* (L.) from Mexico
Perla Cecilia Martinez Sanchez, Andre Gabriel Castro Bautista, Adriana Flores, Beatriz Lopez-Monroy
- 2:25 143 Effect of semiochemicals released by predators on *Aedes aegypti* oviposition
Isaura Aguilar-Delgado, Eduardo Rebollar-Telléz, Jesus A. Davila-Barboza
- 2:35 144 Effect of temperature on *Wolbachia* during *Culex pipiens* development
Jovany Barajas, Fabián Gonzalez, Shaoming Huang, Andrea Joyce

- 2:45 145 Isolation and evaluation of entomopathogenic fungi of soils from the northeast of Mexico.
Eduardo Sanchez Saldivar, Jesus A. Davila-Barboza, Adriana Flores, Beatriz Lopez-Monroy, Selene Gutiérrez
- 2:55 300 An experimental house model for evaluating mosquito repellent formulations against *Aedes aegypti* and *Aedes albopictus*.
Devany Contreras, Anuar Medina-Barreiro, Wilberth Bibiano-Marin, Luis Felipe Ramirez-Sánchez, Iram Rodriguez-Sanchez, Gonzalo M. Vazquez-Prokopec, Azael Che-Mendoza, Gabriela Gonzalez-Olvera, Gerardo Trujillo, Pablo Manrique-Saide

UAS Ops in Mosquito Control Symposium I

Moderator: Nick Lefkow

1:45 PM - 3:15 PM

Meeting Room: A2

- 1:45 146 UAS Operations at Lee County Mosquito Control District.
Nick Lefkow, Aaron Lloyd, David F. Hoel
- 2:00 147 From Couch to 400 feet: Midland County Mosquito Control's Journey into Drone Operations.
Carl W. Doud
- 2:12 148 Metropolitan Mosquito Control District Unmanned Aircraft Systems Larvicide Program.
Jake Kirkman, Joe Elling
- 2:24 149 Brunswick County, NC UAS Mosquito Control Operations.
Abram Young
- 2:39 150 The use of UAS for large area larviciding and adulticiding with multiple payload systems.
William H. Reynolds
- 2:51 151 Taking Flight with Drone Photogrammetry: Operational Uses for Aerial Imagery in Mosquito Control
Atom Rosales, Sara Grant, Keira J. Lucas
- 3:03 152 Drones and the Residual Advantage at Turlock Mosquito Abatement District
David E. Heft, Samer Elkashef

Young Professionals Symposium: Panel Discussion - "The Odyssey from Larvae to Leaders: Crafting your Career Path in Mosquito Control"

Moderator: Chloe Wang, Kyndall Dye-Braumuller, Caroline Gongora, Vilma Montenegro, Carla-Cristina Edwards

1:45 PM - 3:15 PM

Meeting Room: D2

3:15 PM - 4:00 PM Break in Exhibit Hall

The Grand Hall

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3:15 PM - 4:00 PM Donut Social

The Grand Hall

Sponsored By



4:00 PM - 5:00 PM Vendor Meeting & Reception

Pearl 4

4:00 PM - 5:30 PM* Afternoon Session

**unless otherwise noted*

Artificial Intelligence in Mosquito and Vector Control/Behavior/Biology/Genetics

Moderator: Ruben S. Rosas

4:00 PM - 5:30 PM

Meeting Room: D3

- 4:00 153 *Aedes aegypti* mosquitoes use the Ionotropic Receptor Ir68a to identify water sources.
Elaine Chu, Andre L. Costa-da-Silva, Anthony J. Bellantuono, Helen Wagner, Kristian Lopez, Joshua Benoit, Matthew DeGennaro
- 4:10 154 Barcoding Quantitative PCR assay to distinguish between *Aedes aegypti* and *Aedes sierrensis*
Miguel Barretto, Dereje Alemayehu, Ryan Clausnitzer, Eric Haas-stapleton
- 4:20 155 Why Mosquitoes Bite Me More Than You: How Differences in Human Skin Bacteria Influences Mosquito Host-Seeking Behavior
Kaylee M. Marrero, John S. Castillo, Andre L. Costa-da-Silva, Anthony J. Bellantuono, Niels Verhulst, Matthew DeGennaro
- 4:30 156 Developing a vector monitoring in Berlin, Germany
Lukas Murajda
- 4:40 157 An AI imaging attachment for remote automated assessment of vector abundance and species diversity in mosquito traps
Jewell Brey, Jaykob Cave-Stevens, Roy Faiman, Sameerah Talafha, Thomas Jenkins, Alyssa Shultz, Sanket Padmanabhan, George Constantine, Rongjun Wu, Tristan Ford, Autumn Goodwin

WEDNESDAY

- 4:50 158 Deployed use and performance of IDX for AI vector identification in Maryland's mosquito surveillance program
Autumn Goodwin, Roy Faiman, Sameerah Talafha, Thomas Jenkins, Alyssa Shultz, Jewell Brey, Jaykob Cave-Stevens, Sanket Padmanabhan, George Constantine, Rongjun Wu, Tristan Ford
- 5:00 159 Dancing in the purple rain: color affinity and oviposition choices in the Western tree-hole mosquito, *Aedes sierrensis* (Diptera: Culicidae).
Christopher Bibbs, Kai Casci, Neil Vickers
- 5:10 301 AI Driven Surveillance and Metagenomics for Modeling and Predicting Mosquito-Borne Diseases
Miguel Saldaña

Disease & Vector Studies II

Moderator: Tony Hedley

4:00 PM - 5:30 PM

Meeting Room: A1

- 4:00 160 Factors impacting thermal tolerance in mosquitoes
Kristen Healy
- 4:10 161 Resistance and inhibitor testing on *Aedes aegypti* populations in the Florida
Heidi Murray
- 4:20 162 Towards environmental surveillance of the invasive vector species *Anopheles stephensi* in sub-Saharan Africa.
Louisa A. Messenger, Mojca Kristan
- 4:30 163 Novel application of electrospun monofilament prototype textile fibers impregnated with DEET and picaridin for improved warfighter protection.
James Cilek
- 4:40 164 Madariaga virus: What are you and where are you found?
Michael J. Turell, Gabriel Hamer, Tereza Magalhaes
- 4:50 165 Edge of range invasion and infection of *Aedes albopictus*.
Jennifer Shimola, Jacob Sublett, Gayathri Beligala, Paul Bauman
- 5:00 167 Diel Activity Patterns of Arizona Mosquito Species in Urban Settings
Adele Malone, Krijn Paaijmans, John Townsend, James Will, Nicole Busser
- 5:10 168 Selective pressures for insecticide resistance; may the selective force be with us
Silvie Huijben, Brook Jensen, Don Ward, Joshua Ain, Yazid Aldosari, Mackenna Berg, Simranpreet Chatta, Jillian Higbee, Ashlyn Maag, Tara Magana, Emma Royster, Nicolae Sava, Chance Spurlin, Yiwei Sun, Tiffany Torres, Alden S. Estep
- 5:20 169 Rainfall and the population dynamics of
Luis Chaves, Sajjad Khan, Madison Abel

From Buzz to Bust: The Future of Mosquito Surveillance for Innovative Control Strategies Symposium

Moderator: Martin Geier

4:00 PM - 5:30 PM

Meeting Room: A3

- 4:00 170 From Convention to Innovation: How Can we Bridge the Gap Between Conventional Surveillance Methods and Innovative Control Strategies?
Jennifer McCaw
- 4:05 171 Deploy, Optimize, Rely: An Operational Case Study on the Broad Adoption of BG Counter.
Lauren Lavezzi
- 4:15 172 Using BG Sentinels to estimate the vectorial capacity of *Aedes aegypti* for dengue-1 virus the Florida Keys.
Catherine A. Pruszynski
- 4:30 173 BugOut Wolbachia: Data-driven support for a community-driven project.
Johanna Ohm, Amy Lynd, Jacob Crawford, Bradley White
- 4:45 174 Innovative hardware, software, and citizen science techniques to combat *Anopheles stephensi* and the global spread of malaria.
Sriram Chellappan, Brandon Wolfram, Farhat Azam, Tanvir Bhuiyan, Johnny Uelmen, Russanne Low, Ryan Carney
- 4:55 175 Mosquito Traffic Light: Should You Stay or Should You Go – collecting data and educating the public in unconventional ways
Charles Abadam
- 5:05 176 Mosquito Beacons Working Group – Advancing mosquito surveillance by cross-state cooperation
Bryan Giordano, Michael Riles, Lindsay Campbell, Daniel Killingsworth, Benjamin Allen, Elmer Gray, Yoosook Lee

UAS Ops in Mosquito Control Symposium II

Moderator: Nick Lefkow

4:00 PM - 5:30 PM

Meeting Room: A2

4:00 177 Aerial deployment of IIT mosquitoes in Hawai'i to suppress the non-native *Southern house mosquito* for endangered forest bird conservation

Adam Knox, Chris Farmer, Josh Fisher, Christa Seidl, Peter Landon

4:15 178 Expanding Drone Field Operations

Charlie Guenther, Shawn Partyka

4:27 179 Utilizing Drones in Contra Costa County to Conduct Larviciding Treatments During an Above Average Rainfall Mosquito Season

David Wexler, Paula Macedo, Jeremy Shannon, Terry Davis, Miaja Mc Cauley, Heidi Budge, Tim Mann, Steve Fisher

4:39 180 AMCA Drone Program: Removing Barriers and Encouraging Innovation

Joel B. Buettner, Jonathan Rupprecht, Daniel Markowski

Young Professionals Symposium: Career Roundtables

Moderator: Caroline Gongora, Vilma Montenegro, Kyndall Dye-Braumuller, Carla-Cristina Edwards, Chloe Wang

4:00 PM - 5:30 PM

Meeting Room: D2

5:30 PM - 6:30 PM

Young Professionals Social

(Invitation Only Event)

Press Club

Sponsored By



6:30 PM - 7:30 PM

Past President's Reception

(Invitation Only Event)



90TH ANNUAL MEETING
At-A-Glance
Thursday, March 7, 2024

7:30 am – 4:00 pm **Registration**
Grand Hall

7:30 am – 4:00 pm **Speaker Ready Room**
Pearl 2

8:30 am – 10:00 am **Morning Sessions**

- Adult Control I
D2
- Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium I
A3
- Latin American Symposium I
D3
- Sugar Feeding and Diurnal Resting of Mosquitos Symposium
A1
- Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium I
A2

10:00 am – 10:45 am **Break**
Grand Hall

10:45 am – 12:15 pm **Morning Sessions** *(continued)*

- Adult Control II
D2
- Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium II
A2
- Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium II
A3
- Latin American Symposium II
D3
- Social Media and Mosquito Control Symposium
A1

12:15 pm – 1:45 pm **LUNCH**
**On your own*

THURSDAY, MARCH 7

1:45 pm – 3:15 pm

Afternoon Sessions

- 10th Annual AMCA Arthropod Vector Highlights Symposium
A3
- Adult Control III
D2
- Disease & Vector Studies III/Larval Control I
A2
- Education & PR
A1
- Equipment/New Product Trials
D3

3:15 pm – 3:45 pm

Refreshment Break

Grand Hall

3:45 pm – 5:15 pm

Afternoon Sessions *(continued)*

- GIS/GPS/Management
A3
- Larval Control II
A2

6:00 pm – 7:00 pm

Pre-Banquet Social

Grand Hall

7:00 pm – 9:30 pm

Banquet

Dallas BC

(Badge Required)

8:30 AM - 10:00 AM***Morning Session****unless otherwise noted***Adult Control I**

Moderator: Chloe Wang**8:30 AM - 10:00 AM***Meeting Room: D2*

- 8:30 181 A systematic review of *Aedes aegypti* control trials to investigate publication bias in relation to author conflicts of interest.
Abdisalam A. Abdi, Gabriel Hamer
- 8:40 182 Insecticide treated resting stations reduce parity rate of the enzootic mosquito vector of EEE virus, *Culiseta melanura*.
Edward D. Walker, John Keven
- 8:50 183 First documented report of insecticide resistance in the WNV vector *Culex tarsalis* from Wyoming .
Mikenna Smith, Kelsey M. Mitchell
- 9:00 184 Variation in efficacy of essential oils deployed as spatial repellents.
Frances V. Golden, Seth Gibson, Robert L. Aldridge, Barbie Bayer, Edmund Norris, Kenneth Linthicum
- 9:10 185 An Update on Research into Nontarget Effects of Mosquito Adulticides on Wild Bees in Manatee County, Florida.
Jacob D. Hart, Samantha Ramirez-Lachmann, Katelynn Hare, Kimiko Baptist, Mark D. Latham, Christopher Lesser
- 9:20 186 Evaluation of Three Battery Powered Backpack Sprayers for Barrier Applications.
Muhammad Farooq, Whitney Qualls, Steven Smoleroff, Rui-De Xue
- 9:30 187 The impact of next-generation dual-active ingredient long-lasting insecticidal net deployment on insecticide resistance in malaria vectors in Tanzania.
Louisa A. Messenger
- 9:40 188 A new approach to using CDC bottle bioassay data to inform semi-field or field mosquito mortality.
Edmund Norris, Casey Crockett, Sarah Wheeler, Laura Harrington, Aine Lehane, Lindsay Baxter
- 9:50 189 Spinosad adulticidal activity by contact and ingestion in toxic sugar bait: another potential approach to control *Aedes aegypti*.
Maria Alice Melo-Santos, Kathyanne Barbosa, Constância Ayres

Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium I

Moderator: Mustapha Debboun, Rajeev Vaidyanathan

8:30 AM - 10:00 AM

Meeting Room: A3

- 8:30 190 Senecio cookie factory - Lessons learned from its 2023 field deployment addressing the logistics and operations aspects.
Hanan Lepek
- 8:45 191 Research, radiation, and resilience: Use of the sterile insect technique for *Aedes aegypti* (L.) in Lee County, Florida.
Rachel Morreale, Steven Stenhouse, Johanna Bajonero, Danilo Carvalho, Aaron Lloyd, David F. Hoe
- 9:00 192 Update on Preliminary Studies of the Southern California SIT Joint Pilot Project Using X-ray Sterilized Male *Aedes aegypti*.
Sokanary Sun, Nicolas Tremblay, Ryan Amick, Colt Bellman, Tim Morgan, Tanya Posey, Amber Semrow, Steven Vetrone, Xiaoming Wang, Susanne Kluh, Lora Young
- 9:15 193 Temperature and Wolbachia infections in *Culex pipiens* mosquitoes: Implications for novel mosquito controls .
Andrea Joyce, Jovany Barajas
- 9:30 194 Incompatible insect Techniques against container-breeding *Aedes* mosquito species in Houston, Texas.
Jimmy Mains, Karen Dobson, Stephen L. Dobson
- 9:45 195 Generation and mass production of a universally incompatible *Culex quinquefasciatus* line for Wolbachia-based sterile insect technique.
Anna Buchman

Latin American Symposium I

Moderator: Catalina Alfonso-Parra, Griffith S. Lizarraga

8:30 AM - 10:00 AM

Meeting Room: D3

- 8:30 196 Over a Decade of Breakthroughs in Urban Mosquito Control: Exploring Droplet Dynamics and Advancements in Wide Area Larviciding Techniques.
Griffith S. Lizarraga
- 8:40 197 Machine-learning methods to unravel underlying patterns and correlations among four anthropophilic sandfly species (Diptera: Psychodidae) in the Yucatan Peninsula, Mexico .
Eduardo Rebollar-Telléz, Francisco Hernández-Cabrera, Sergio Ibáñez-Bernal
- 8:50 198 Efectos tóxicos del extracto de cáñamo en *Aedes aegypti*.
Erick Martinez, Peter M. Piermarini
- 9:00 199 Status Of Acaricide Resistance In *Rhipicephalus microplus* Canestrini (Acari: Ixodidae) From Northeastern Mexico .
Mizael Gonzalez-Escandon, Beatriz Lopez-Monroy, Adriana Flores, Gustavo Ponce-Garcia, Isaac F. Vazquez-Dominguez, Alan E. Juache-Villagrana, Andre Gabriel Castro Bautista

- 9:10 200 Landscape of mosquito's physiology by "omics" tools.
Iram Rodríguez-Sánchez, Gerardo Trujillo, María de Lourdes Ramírez Ahuja, Mayra Gomez-Govea
- 9:20 201 Monitoring and evaluation of vector control interventions implemented in a malaria endemic area on the pacific coast of Colombia.
Diana M. Lucumi-Aragón, Nadia Calderón-Martínez, Edward Vargas-Galindo, Jarrinson Aguirre, Martha Ahumada, Carlos Morales-Reichmann, Audrey Lenhart, Rebecca Levine, Manuela Herrera-Varela
- 9:30 202 Evaluación de la tasa de eclosión de huevos de *Aedes aegypti* y *Aedes albopictus* en campo en Tapachula, Chiapas, México .
José I. Navarro Kraul, Luis A. Cisneros-Vazqu ez, Jorge Rodr guez-Rojas, Rosa Maria M. Sanchez-Casas, Ildefonso Fernandez-Salas
- 9:40 203 Evaluating Spinosad Susceptibility in Brazilian *Aedes aegypti* .
Luciana dos Santos Dias, Ademir de Jesus Martins-Junior, Jos  Bento Pereira Lima
- 9:50 204 Design and evaluation of an attractant sticky trap for indoor and outdoor surveillance of female populations of *Aedes aegypti* in Mexico .
Keila E. Paiz Moscoso, Jorge Rodr guez-Rojas, Rogelio Dan s-Lozano, Luis A. Cisneros-Vazqu ez, Eduardo Rebollar-Tell z, Rosa Sanch z-casas, Ildefonso Fern ndez-Salas

Sugar Feeding and Diurnal Resting of Mosquitos Symposium

Moderator: Gunter C. Muller

8:30 AM - 10:00 AM

Meeting Room: A1

- 8:30 205 Attraction distance of mosquitoes to different types of mosquito traps and natural blood sources.
Gunter C. Muller, Alexey M. Prozorov, Edita E. Revay, Mohamed M. Traore, Amy Junnila, Rui-De Xue, Karen McKenzie
- 8:40 206 Mosquito Plant Attraction: Attraction from a distance; Relative plant attraction; Plant feeding rates and long term plant meal survival rates.
Alexey M. Prozorov, Mohamed M. Traore, Edita E. Revay, Aidas Saldaitis, Rui-De Xue, Liwang Cui, Gunter C. Muller
- 8:50 207 Invasive plants in Mali West Africa: Their impact on seasonal sugar feeding and diurnal resting of Anopheline populations and implications for vector competence.
Liwang Cui, Mohamed M. Traore, Edita E. Revay, Alexey M. Prozorov, Rui-De Xue, Aidas Saldaitis, Gunter C. Muller
- 9:05 208 The importance of indoor sugar feeding and indoor resting for mosquitoes during the dry season in Mali West Africa.
Edita E. Revay, Mohamed M. Traore, Alexey M. Prozorov, Rui-De Xue, Aidas Saldaitis, Liwang Cui, Gunter C. Muller

- 9:15 209 Convenience foods and waste management: an emerging problem for urban malaria and Dengue?
Gunter C. Muller, Edita E. Revay, Alexey M. Prozorov, Mohamed M. Traore, Rui-De Xue, Liwang Cui
- 9:30 210 Assessing *Anopheles gambiae* s.l feeding on Attractive Sugar Bait (ASB), versus feeding on natural sugar sources in a village in Mali, West Africa.
Mohamed M. Traore, Younoussa Ziguime, Gergely Petranyi, Rabiadou A. Diarra, Alou Keita, Edita E. Revay, Alexey M. Prozorov
- 9:45 211 ATSB entomological randomized trial in twenty villages in a malaria low endemicity setting from June to December 2019, in North Mali, West Africa.
Mohamed M. Traore, Amy Junnila, Seydou Doumbia, Rabiadou A. Diarra, Edita E. Revay, Rui-De Xue, Alexey M. Prozorov

Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium I

Moderator: Laura Harrington

8:30 AM - 10:10 AM

Meeting Room: A2

- 8:30 212 Genomic epidemiology of West Nile virus in the southwestern United States..
Crystal M. Hepp
- 8:50 213 Collaborating with Vector Control to explore the connection between laboratory resistance assays and control efficacy for *Culex tarsalis*
Tara Thiemann, Sarah Wheeler, Mario Novelo Canto, Debbie A. Dritz, Natalie Linker, Leen Yousef
- 9:10 214 Catalysts of Change: Transformative Projects and Collaborations in Vector-Borne Disease Response.
Mark Clifton, Lyric Bartholomay, Susan Paskewitz, Justin Harbison, Haley Johnson
- 9:30 215 Daily impacts of adulticide application on *Culex pipiens* and *Cx. restuans* abundance, age structure, and West Nile virus infection rate in the Chicago suburbs .
Kristina Lopez, Patrick Irwin, Katie Susong, Susan Paskewitz, Lyric Bartholomay
- 9:50 216 NEVBD's Regional Pesticide Resistance Program and the Vital Collaborations that make it Possible.
Lindsay Baxter, Charles Abadam, Laura Harrington

10:00 AM - 10:45 AM

Break

The Grand Hall

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scJohnson

**Center for
Insect Science**
and Family Health

10:45 AM - 12:15 PM*

Morning Session

**unless otherwise noted*

Adult Control II

Moderator: Benjamin L. Nyman

10:45 AM - 12:15 PM

Meeting Room: D2

- 10:45 217 Temperature and time of biting impact the efficacy of chemical control interventions targeting the West Nile Virus vector, *Culex tarsalis*.
Joshua Kalmouni, James Will, John Townsend, Krijn Paaijmans
- 10:55 218 Laboratory and semi-field evaluation of the dried attractive bait station (DABS) against *Ae. aegypti* mosquitoes.
Leonardo Ortega López, David Larsen, Marco Neira
- 11:05 219 Dengue Prevention and Exclusion of *Aedes aegypti* with Screens in Doors and Windows in Puerto Rican Houses.
Nexilianne Borrero, Julianne Miranda, Jania García, Grayson Brown
- 11:15 220 Field trial on the efficacy of Oviposition enhancer fused to the In2Care® Mosquito Stations in attracting *Culex quinquefasciatus* and *Aedes aegypti*.
Jennifer Castellon, Solomon Birhanie, Michelle Brown
- 11:25 221 Corporate Responsibility in Action, Leading the Fight Against Malaria: The Role of IR3535® in this Battle.
Howard Epstein
- 11:35 222 Incorporating Sterile Insect Technique into IPM toolbox to control invasive *Aedes* mosquitoes in the West Valley region of San Bernardino County, California.
Solomon Birhanie, Jennifer Castellon, Mayra Macias, Michelle Brown
- 11:45 36 Survey of Naled Resistance in *Aedes aegypti* Populations Across the Collier Mosquito Control District.
Decyo S. McDuffie, Keira J. Lucas, Rebecca Heinig
- 11:55 224 Comparing the effectiveness of various spatial repellents in the lab and field: the utility of a small-tube glass repellency assay
Edmund Norris, Jedidiah Kline, Greg Allen, Robert L. Aldridge, Kenneth Linthicum, Dan Kline, Seth Gibson
- 12:05 225 Easy colonization of field strains of *Culex quinquefasciatus* and novel PCR assays for speciation and detection of strong organophosphate resistance.
Neil D. Sanscrainte, Alden S. Estep

Collaboration and Innovation: CDCs COE Partnerships with AMCA Professionals Symposium II

Moderator: Laura Harrington

10:45 AM - 12:15 PM

Meeting Room: A2

- 10:45 226 How insecticide resistance monitoring and management has integrated into the Suffolk Mosquito Control program.
Charles Abadam
- 11:05 227 Developing Future Leaders: Mosquito Control Training Through the Collier Mosquito Control District and CDC Southeastern COE Internship Program.
Keira J. Lucas, Rhoel Dinglasen
- 11:25 228 Evaluation of truck-based adulticiding in Harris County, Texas on *Culex quinquefasciatus* abundance and infection with West Nile virus.
Gabriel Hamer, Luis Chaves, Charlotte Rhodes, Chris Fredregill, Maximae Vigilant, Luke Bergmann, Rudy Bueno, Mustapha Debboun
- 11:45 229 Surveillance of Ticks and Tickborne Diseases: Collaboration Between Harris County Public Health and the Western Gulf Center of Excellence for Vector-borne Diseases.
Michelle Downey, Erik Aguirre, Brianna Weber, Maximae Vigilant

Innovative, Operational Non-Chemical Approaches to Mosquito Control Symposium II

Moderator: Mustapha Debboun, Rajeev Vaidyanathan

10:45 AM - 12:15 PM

Meeting Room: A3

- 10:45 230 Advances in the development of an SIT Program for mosquito control districts to control *Aedes aegypti*.
Robert L. Aldridge, Kenneth Linthicum, Seth Gibson, Barbie Bayer
- 11:00 231 Application of genetically engineered mosquitoes for malaria elimination.
Anthony Cornel, Gregory Lanzaro
- 11:15 232 Autocidal control tools for *Aedes aegypti* and *Aedes albopictus* - Population Suppression using *Wolbachia* infected males.
Stephen L. Dobson
- 11:30 233 Developing biocontrol technologies for mosquitoes.
Shih-Che Weng, Igor Antoshechkin, Eric Marois, Omar Akbari
- 11:45 234 Collaborative efforts with Oxitec and Delta Mosquito and Vector Control District in the Central Valley of California.
Mustapha Debboun
- 12:00 235 Update and next steps: Oxitec *Aedes aegypti* control in the U.S.
Rajeev Vaidyanathan

Latin American Symposium II

Moderator: Catalina Alfonso-Parra, Griffith S. Lizarraga

10:45 AM - 12:15 PM

Meeting Room: D3

- 10:45 236 Metagenomic bank for the control of Culicidae.
Gerardo Trujillo, Mariana Jimenez, Everardo Gonzalez, Iram Rodriguez-Sanchez
- 10:55 237 Mosquito (Diptera: Culicidae) survey during the construction of the Mayan train, southeastern Mexico.
Aldo Ortega-Morales, Jorge Rodríguez-Rojas, Ángel Gómez-Rivera, Pedro Mis-Ávila, Marco Domínguez-Galera, Rosa Maria M. Sanchez-Casas, Ildefonso Fernandez-Salas
- 11:05 238 Effectiveness of Actellic 300 CS (Pirimiphos-methyl 28.9%) as alternative ULV formulation to control indoor and outdoor adult *Aedes aegypti* resting populations at Monterrey, Northeastern Mexico.
Ildefonso Fernandez-Salas, Jorge J Rodriguez-Rojas, Rosa Maria M. Sanchez-Casas, Teresa Ambriz
- 11:15 239 Datos Satelitales para Apoyar Herramientas de Pronóstico de Enfermedades Transmitidas por Vectores.
Helena Chapman
- 11:25 240 Parallel surveillance activity of *Aedes aegypti* using traps in the Wolbachia replacement project to control dengue in El Salvador.
Julianne Miranda, Cristhian Sánchez-Rolón, Berta Álvarez-Rodríguez, Norma Padilla, Carlos Estupinian, Omar Martinez, Jose Eduardo romero, Grayson Brown
- 11:35 241 Situation of arbovirus transmission in Latin America and Brazil, post COVID19 pandemic and the consequences of global warming.
Fabio Castelo Njaime

Social Media and Mosquito Control Symposium

Moderator: Michael Mut

10:45 AM - 12:15 PM

Meeting Room: A1

- 10:45 242 Mastering Multimedia: Social Media Storytelling.
Beth Ranson
- 11:00 243 From Silence to the Sound of Social Media.
Michele Rehbein
- 11:15 244 Backyard Bug Hunt - Mosquito Edition.
Jason Fritz, Meghan Murray
- 11:30 245 Leveraging Facebook in mosquito control communications.
Michael Mut

12:15 PM - 1:45 PM

Lunch on Own

12:30 PM - 1:30 PM

Drone Roundtable

Meeting Room: D2

1:45 PM - 3:15 PM*

Afternoon Session

**unless otherwise noted*

10 Annual AMCA Arthropod Vector Highlights Symposium

Moderator: Lee Cohnstaedt

1:45 PM - 3:15 PM

Meeting Room: A3

1:45 246 Highlights of Vector Control Technology – 2023.

Isik Unlu

2:15 247 Highlights of Vector Biology.

Keira J. Lucas

2:45 248 Highlights: Recent outbreaks and/or introductions of vector species.

Paula Lado

Adult Control III

Moderator: Benjamin L. Nyman

1:45 PM - 3:15 PM

Meeting Room: D2

1:45 249 Exclusion of *Ae. aegypti* from yard drains reduces adult abundance in Madera, California.

Abraham Velazquez, Trinidad Reyes, Istvan Menyhay, Teresa Hamilton, Christopher M. Barker, Nicholas Aparicio Arrue

1:55 250 Mosquito Activity, Meteorological Conditions and the Effectiveness of Aerial Sprays.

Neil Vickers, Sarah McDonald, Nathaniel Byers, Ary Faraji

2:05 251 Mosquito Magnet Executive Trapping for Neighborhood protection from Mosquitoes – a 2-year study.

Aaron Lloyd, Dan Kline, Karen McKenzie, David F. Hoel

2:15 252 Report on the AMCA 2023 Insecticide Resistance Workshop.

Daniel Markowski, Jennifer Gordon

2:25 253 Spatial repellents as protection points against mosquitoes in a Florida forest.

Barbie Bayer, Robert L. Aldridge, Kenneth Linthicum, Seth Gibson, Jeff Bloomquist, Edmund Norris, Daniel Kline

2:35 254 Statewide examination of insecticide resistance and mechanisms in Florida *Culex quinquefasciatus*.

Eva Buckner, TJ Fedirko, Alden S. Estep, Eric P. Caragata, Ana Romero-Weaver

THURSDAY

- 2:45 255 Using action thresholds to escalate mosquito control interventions.
Sarah Wheeler, Tony Hedley, Steve Ramos, Gary Goodman
- 2:55 308 Australia's National Border Vector Monitoring Program - current state and challenges.
Kyran Staunton, Angus Sly

Disease & Vector Studies III/Larval Control I

Moderator: Kyndall Braumuller

1:45 PM - 3:15 PM

Meeting Room: A2

- 1:45 256 Not your grandma's West Nile: Transmission dynamics of West Nile virus in Richland County, SC do not follow traditional ecology or epidemiology.
Kyndall Dye-Braumuller, Melissa S. Nolan
- 1:55 257 The Impact of Various Doses of Roundup® on the Larval Development of the Southern House Mosquito, *Culex quinquefasciatus* (Diptera: Culicidae).
Mahmood Nikbakhtzadeh, Aboulaye Aziz Zerbo, Mayra Espinoza
- 2:05 258 It Taste Like Chicken: The challenges of cannibalism among Sentinel chickens.
Milton Sterling
- 2:15 259 Sewage effluent changes sexual organs and limits survivorship and larval mosquito feeding rates of *Gambusia affinis*
Kevin A. Caillouet, Emily Kane
- 2:25 260 Inhibition of emergence: Field validation of encapsulated methoprene.
Michael Riles
- 2:35 261 Aligning data streams for (successful) entomological evaluations of larviciding for control of *Culex* mosquitoes in Minneapolis-St. Paul, Minnesota.
Joseph McMillan, Scott Larson
- 2:45 262 Preliminary evaluation of toxicity of essential oils to *Aedes taeniorhynchus*.
Lawrence Hribar
- 2:55 263 Efficacy testing of a residual mosquito larvicide on flood irrigated ranches in Teton County, Wyoming.
Kelsey M. Mitchell, Mikenna Smith
- 3:05 264 Considerations for assessing methoprene bioefficacy in the lab and in the field.
Tony Hughes

Education & PR

Moderator: **Caroline Gongora**

1:45 PM - 3:15 PM

Meeting Room: A1

- 1:45 274 How to Design an Unforgettable Mosquito Education Experience.
Amy Lucas, Ian Sharp, Jason Burgess
- 1:55 275 Bytes, Bits, and Buzz: How Technology and Good Data Management Enhance Public Relations.
Andrea McKinney
- 2:05 276 Analysis of Perceived Risks and Benefits of Mosquito Abatement and Personal Protection Strategies in Northeast Communities.
Emily Mader, Nia Clements, Aine Lehane, Scott Crans, Chris Horton, Jody Gangloff-Kaufmann, Amelia Greiner Safi, Laura Harrington
- 2:15 277 Taking mosquito control education to the next level: Building an education center and science museum.
Richard Weaver, Rui-De Xu
- 2:25 278 Wing Beats - AMCA/FMCA trade journal to highlight your program
Dennis Moore
- 2:35 279 Successfully Engaging the Community with Impactful Mosquito Control Outreach Practices.
Monique D. Spence
- 2:45 280 Designing Tests for Formulated Larvicidal Products in Laboratory or Semi-Field Environments.
Mir Bear-Johnson, Chris Holderman, Kevin Welzel
- 2:55 281 A brief history of Methoprene, product development, and commercialized products for various use patterns both within and outside of mosquito control.
Chris Holderman, Mir Bear-Johnson
- 3:05 282 Infrastructure to Evaluate Community Engagement Efforts for an Integrated Vector Management Program.
Rafael Saavedra, Julianne Miranda, Grayson Brown

Equipment/New Product Trials

Moderator: **Vilma Montenegro**

1:45 PM - 3:15 PM

Meeting Room: D3

- 1:45 265 A Standardized Protocol for Unmanned Droplet Characterization of Truck Amounted Cold Aerosol ULV Equipment Using ULV Diluent Oil.
Jacob Sublett, Jennifer Shimola, Paul Buaman
- 1:55 266 DIY: A modernized gravid trap design for mosquito surveillance.
Nathaniel Byers, Andrew Dewsnup, Thomas Widmer, Ella Branham, Ary Faraji, Gregory White, Christopher Bibbs
- 2:05 267 The H-Trap Is Not Just for Tabanidae.
Dan Kline
- 2:15 268 3D Printing Applications for Research and Surveillance at Pasco County Mosquito Control District.

THURSDAY

Taylor Taylor, Agne Prasauskas

2:25 269 The SLAM feeder as a cost effective option for blood feeding mosquitoes.

Gregory White, Christopher Bibbs, Nathaniel Byers, Ary Faraji

2:35 270 Repelling and catching mosquitoes with electric fields using insulated electrical wires.

Krijn Paaijmans, Ndey Bassin Jobe, Michael Erickson

2:45 271 Can Low-Density In2Care Trap Deployment Manage Mosquito Populations?

Timothy McNamara, Estelle Martin, Cason Bartz, Dan Kline, Eva Buckner, Peter Jiang

2:55 272 Field performance of novel spatial repellents against host seeking *Stegomyia*.

Barbie Bayer, Robert L. Aldridge, Frances V. Golden, Seth Gibson, Jerome Hogsette, Edmund Norris, Jeff Bloomquist, Kenneth Linthicum

3:05 273 Applied Trials; Testing ReMoa Tri Adulticide and In2Care Mosquito Traps.

Daniel Tuzzolino

3:15 PM - 3:45 PM

Break

The Grand Hall

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3:45 PM - 5:15 PM*

Afternoon Session

**unless otherwise noted*

GIS/GPS/Management

Moderator: Herff Jones

3:45 PM - 5:15 PM

Meeting Room: A3

3:45 283 Enhanced Routing Methods for Truck Mounted Applications in Urban Environments.

Ruben S. Rosas

3:55 284 Making Use of Your Data: Decision Making and Reporting Using VectorSurv.

Lincoln Wells

4:05 285 The Deviations in GIS Strategies during Recent Mosquito Control Hurricane Responses in Florida.

Jessica L. Ber

4:15 286 A Day in the Life of a Service Request.

Chad Minter

- 4:25 287 Spinosad ovidical activity: Another tool to control *Aedes aegypti* - dengue vector mosquito.
Maria Alice Melo-Santos, Constância Ayres, Kathyanne Barbosa
- 4:35 288 Insecticide resistance management for *Aedes aegypti* and deltamethrin comparing low-dose, high-dose, and high-dose-refugee treatments.
Brook Jensen, Alden S. Estep, Shelby Blach, Eliana Cheroske, Sophia Koutsogiannis, Roman Lombardo, Noureen Nakshbandi, Axel Pintor, Jack Reihing, Ethan Smith, Silvie Huijben
- 4:45 289 Tick Management Strategies in a Northeastern Park.
Daniel Markowski, Broox Boze
- 4:55 290 A Novel and Innovative Mycelial Approach to Mosquito Control and Management.
Glen Babcock
- 5:05 307 Is Africa ready for American style mosquito control?
Siriman Samake, Mohamed M. Traore, Anounou Sissoko, Dick Loomis, Gunter C. Muller, Alexey M. Prozorov, Edita E. Revay, Rui-De Xue, Ary Faraji

Larval Control II

Moderator: Kristina Lopez

3:45 PM - 5:15 PM

Meeting Room: A2

- 3:45 291 4-Ethylphenol as oviposition cue for *Aedes aegypti*.
Lucia Ibarra Bouzada, Jason Pitts
- 3:55 292 Invasive *Anopheles stephensi* and *Aedes aegypti* Larval Mosquito Surveillance Using the Environmental DNA.
Chloe Wang, Yan Sun, Guiyun Yan
- 4:05 293 Black fly management at Greater Los Angeles County Vector Control District: A Game of Leapfrog.
Rande M. Gallant
- 4:15 294 Lethal and nonlethal effects of insect growth regulator and predation on *Aedes aegypti* mosquitoes.
Abdullah Alomar, Barry Alto
- 4:25 295 Attack of the Zoospores! Discovery of a new *Pythium* species infecting mosquito larvae in Lee County.
Constance Darrisaw
- 4:35 296 Assessing Methoprene Resistance in *Aedes taeniorhynchus* Mosquitoes from Indian River County, Florida.
Peter Jiang, Sherry Burroughs
- 4:45 297 *Mansonia* mosquitoes, water weeds, and insectary intricacies.
Mollie Davies, Shannon Cawthon, Kevin A. Caillouet

THURSDAY, MARCH 7, 2024

4:55 298 Reduced susceptibility of S-methoprene in *Culex pipiens* throughout the Chicago area.

Kristina Lopez, Justin Harbison, Patrick Irwin, Mark Clifton, Susan Paskewitz, Lyric Bartholomay

6:00 PM - 7:00 PM

Pre-Banquet Social

Grand Hall

Sponsored By



Agricultural &
Environmental
Solutions



CENTRAL
LIFE SCIENCES

7:00 PM - 9:30 PM

Banquet

Dallas BC

THURSDAY



90TH ANNUAL MEETING
At-A-Glance
Friday, March 8, 2024

8:30 am – 9:30 am **AMCA Annual Member Meeting**
D3

9:30 am – 12:30 pm **Board of Directors Meeting**
Pearl 4

Adjourn – See you in Puerto Rico in 2025!

FRIDAY, MARCH 8, 2024

8:30 AM - 9:30 AM AMCA Annual Members Meeting

Meeting Room: D3

9:30 AM - 12:30 PM Board of Directors Meeting

Meeting Room: Pearl 4

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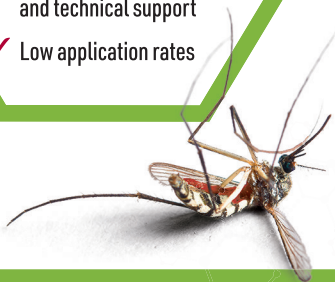
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