

THE SKEETER

VOL. 83, No. 4

**2023-2024
Winter
Newsletter**

**OFFICIAL NEWSLETTER OF
THE VIRGINIA MOSQUITO
CONTROL ASSOCIATION**

President's Address

Happy New Year!

Most everyone is aware that our 2023 President Carla Caulkins is out on maternity leave through mid-March. Carla welcomed her second baby in December and I hope you will join me in congratulating her when you see or speak with her. Carla worked right up to her last day squaring everything away and in her absence, as president elect/acting president, I will do my best to step into the role and keep things running smoothly.

That said, our 2024 Annual Conference is fast-approaching! **Please remember to register and take advantage of the early bird price discounts offered through January 26.** Currently, the hotel block with government rate is open through January 24. The draft agenda is on the website and we would like to thank all speakers in advance - there are some great topics scheduled and we appreciate your efforts to share your knowledge and experience with membership. VDACS recertification credit will be offered at the conference for Virginia commercial pesticide applicators in categories 8 and 60. Members seeking recertification must attend all day Wednesday, February 21 and fill out both the application and roster at the registration desk.

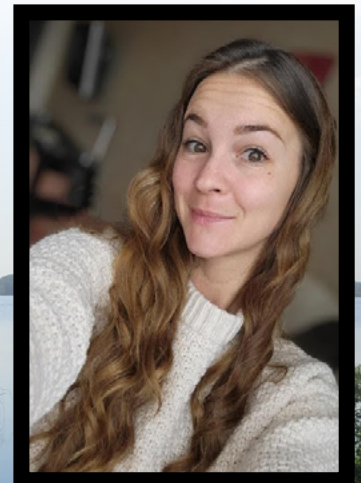
I would like to encourage everyone to vote in the 2024 VMCA Election. This year we have new candidates running for the offices of First Vice President, Secretary/Treasurer, and Industry Representative. Please take a moment to read their bios and vote for those that have graciously offered to dedicate their time and efforts to our organization. Voting will continue to be conducted in an electronic format so check your email for the link to the ballot and your unique voter ID. **Vote this year and you'll be entered to win a \$50 Amazon gift card!**

In the spirit of participation, please also consider joining a committee and support this organization that supports you. **Sign up for any committee before the annual business meeting and you'll be entered to win another \$50 Amazon gift card!** An active membership will keep our organization running and every effort helps. As a reminder, all members are welcome to attend and participate in the annual business meeting which will be the final session of the conference on Thursday, February 22. We will announce the two gift card winners at this meeting, recap the year's events, and several proposed changes to the bylaws will be discussed and voted on.

While this newsletter is full of information on the upcoming conference, there are several other articles to note. There are announcements from our Curations, Legislative, and Student Competition Committees as well as a very interesting *What's That*, just to name a few. Unfortunately it's not all good news. This past October we lost a wonderful colleague, Dennis Salmen. He was a great friend and mentor to many of us in Virginia and he will be sincerely missed. His obituary and information are listed should you wish to make a donation in his memory.

I encourage everyone to submit any vector-related stories, photos, achievements, etc. for inclusion in *The Skeeter* and send you all the best for a happy and healthy new year!

Karen Akaratovic
2023 President Elect



Announcements

WHAT'S IN THIS ISSUE

- [2](#) President's Address
- [3](#) Announcements, What's That?
- [4](#) 77th Annual VMCA Conference
- [5](#) Annual Conference Agenda
- [7](#) Join a Committee
- [8](#) 2024 Election
- [12](#) Proposed Bylaws Changes
- [13](#) Photo Contest Voting
- [14](#) Student Poster Competition Results
- [15](#) Spotlight on City of Portsmouth
- [17](#) Silent Auction
- [18](#) Cabinets of Curiosity
- [19](#) 2023 Tour de Skeeter
- [20](#) What's That Answer
- [21](#) Legislative News
- [23](#) A Chesapeake Float
- [26](#) Remembering Dennis Salmen
- [27](#) Jurisdictions and Resources
- [28](#) 2023 Sustaining Members
- [29](#) 2023 Committee List
- [30](#) 2023 Executive Board

UPCOMING EVENTS

VMCA Executive Board Meeting

dates posted online; all members welcome; email virginiamosquito@gmail.com to register

MAMCA 49th Annual Conference

January 23-25, 2024 - Annapolis, MD

Annual Conference - Room Reservation Deadline

January 24, 2024

Annual Conference - Early Bird Registration Deadline

January 26, 2024

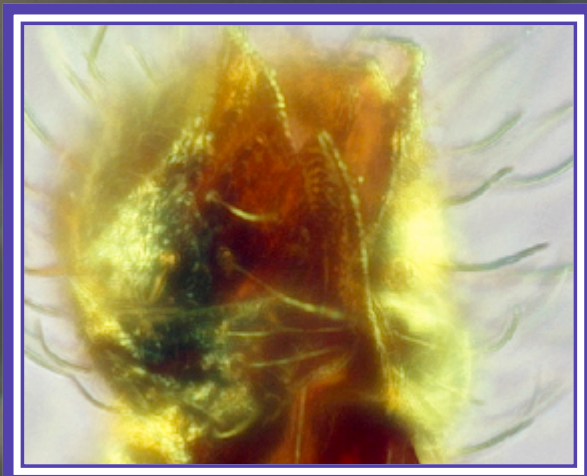
VMCA 77th Annual Conference

February 20-22, 2024 - Virginia Beach, VA

AMCA 90th Annual Meeting

March 4-8, 2024 - Dallas, TX

WHAT'S THAT?



Answer on page 20

DID YOU KNOW?

Membership is complimentary when you [register to the annual conference!](#)

Not attending the conference? Renew your membership anytime [online.](#)

WHAT'S ON THE COVER

Egg raft as seen through stereomicroscope; photography by Jay Kiser, Biologist for Suffolk Mosquito Control

77th Annual Conference

Don't forget to register - Early bird registration ends January 26, 2024!



*The 77th annual conference will take place at the
Hilton Virginia Beach Oceanfront on February 20-22, 2024.*

Lots of details can be found on our [website](#): draft agenda, hotel block information, VDACS recertification, and much more. As additional details are available, the VMCA webpage will be updated. The week before the conference, look for an email from VMCA with more details (parking, digital packet, and final agenda).

VMCA is offering **early bird registration** this year and it is open through January 26, 2024. Early bird registration offers a price discount, so be sure to register by this deadline and avoid higher prices; the registration form can be found on the [annual conference page](#).

Honorary members, don't forget you can attend the conference for free. Make sure you still register so we know you are coming.

Book your hotel rooms soon; deadline for our block is currently January 24, 2024 (keep an eye on the website for possible extension).

VMCA membership is complimentary when registering for the annual conference. If you do not plan to attend the conference and would like to be a VMCA member, please sign up [here](#).

Sustaining members, you also have an early bird option for sustaining membership/conference registration. Make sure to sign up before January 26, 2024 [here](#) or via the link on the main conference page. The form also provides space to show interest in sponsorship opportunities at the conference.

Submitted by VMCA Secretary/Treasurer Jay Kiser

77th Annual Conference Agenda

Tuesday, February 20, 2024

- 11:00 AM** Registration - outside Salon B & C
- 1:00 PM** Conference Room - Salon A
- Presiding: Karen Akaratovic, VMCA President Elect/Acting President*
- 1:00 PM** Welcome and opening remarks
- 1:10 PM** Check your sources
Karen Akaratovic, *Suffolk Mosquito Control*
- 1:20 PM** 2023 Mosquito-borne arboviral disease case surveillance in Virginia
Dr. David Gaines, *Virginia Department of Health*
- 1:50 PM** The Mighty Mosquito Mission
Gina Serge, *Henrico County Public Works*
- 2:05 PM** Annie Andrews: Forgotten "heroine of the pestilence"
Benn Trask, *Historian*
- 2:25 PM** All of the other true flies
Alex Riley, *Suffolk Mosquito Control*
- 2:40 PM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 2:50 PM** Break
- 3:20 PM** Ticks and Tick-borne Disease Activity in Virginia
Joshua Bernick, *Virginia Department of Health*
- 3:30 PM** *Mosquito diversity in multiple state wildlife management areas across Virginia
John Muller, *Virginia Tech*
- 3:45 PM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 3:55 PM** 2023 QA findings for surveillance activities in Fairfax County
Tilde Hoff, *Fairfax County Health Department*
- 4:10 PM** York County outreach update...again
Janice Pulver, *York County Mosquito Control*
- 4:25 PM** So, what do you do in the winter?
Josh Smith, *Fairfax County Health Department*
- 4:40 PM** The surprise of 2023 - *Culex salinarius*
Lisa Wagenbrenner, *Chesapeake Mosquito Control*
- 4:50 PM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 5:00 PM** Adjourn, Icebreaker Social - Salon B & C
- 7:00 PM** Hospitality Room - Courtney Terrace & Princess Anne (overflow seating)

*indicates virtual presentation

Wednesday AM, February 21, 2024

- Recertification Day! Sign roster & complete application**
- 7:00 AM** Light Breakfast & Registration
Presiding: Wes Robertson, VMCA Past President
- 8:00 AM** *Mosquitoes on the move: new introductions and changes in geographic distribution
Dr. Roxanne Connelly, *Centers for Disease Control and Prevention*
- 8:15 AM** VDACS legal update
Christine Haslam, *VA Department of Agriculture and Consumer Services*
- 8:55 AM** They grow up so fast!
Jay Kiser, *Suffolk Mosquito Control*
- 9:10 AM** Novel approaches to vector-host pathogen interactions and eco-epidemiology of EEE virus
Dr. Goudarz Molaei, *Connecticut Agricultural Experiment Station / Yale University*
- 9:30 AM** *Aedes aegypti* in Norfolk
Penelope Smelser, *Norfolk Department of Public Health, Division of Vector Control*
- 9:45 AM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 9:55 AM** Break
Presiding: Lauren Lochstampfor, VMCA Vice President
- 10:25 AM** 1st Place Poster - Identification of sodium channel mutations conferring pyrethroid resistance in *Aedes aegypti* mosquitoes
Funmilayo Egunjobi, *Duke University*
- 10:45 AM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 10:55 AM** 2nd Place Poster - Site-specific community composition of primary West Nile virus vectors in Chicago does not explain fine-scale variation in modeling human cases
Benjamin Burgunder, *University of Maryland, College Park*
- 11:10 AM** Coyotes: wildlife you want?
Pete Acker, *Virginia Department of Wildlife Resources*
- 11:25 AM** Giving ReMoa a Tri: a Virginia cage field trial
Charles Abadam, *Suffolk Mosquito Control*
- 11:35 AM** *3rd Place Poster - Zika and Dengue vaccine design by CRISPR engineering of T4 bacteriophage nanoparticle
Jarín Taslem Mouroso, *Catholic University of America*
- 11:50 AM** Sustaining Member Presentation
Representative, *Vendor TBA*
- 12:00 PM** Awards Banquet & Lunch - Salon B & C

continued next page

Conference Agenda Continued

Wednesday PM, February 21, 2024



Presiding: Addie Weddle, VMCA First Vice President

- 1:30 PM Sustaining Member Presentation**
Representative, Vendor TBA
- 1:40 PM Aedes aegypti in Fairfax County**
Lauren Lochstampfor, Fairfax County Health Department
- 2:00 PM Integrating Esri Field Maps and Dashboards into stormwater maintenance and mosquito control data collection**
Janice Pulver, York County Mosquito Control
- 2:20 PM Portsmouth Light Study Update**
Tim DuBois City of Portsmouth Public Works
- 2:40 PM You have the power: battery management for adult mosquito surveillance**
Andy Lima, Fairfax County Health Department
- 3:00 PM Break - Student Poster Competition Q&A**
- 3:30 PM *West Virginia tick talk**
Eric Dotseth, West Virginia Department of Health & Human Resources Bureau for Public Health
- 3:50 PM The intersect between pesticides and the Endangered Species Act: Bulletins Live! Two**
Marlene Larios, Virginia Department of Agriculture and Consumer Services
- 4:10 PM Vector-borne disease and zoos**
Elyse Murphy, Webbing the Wild, LLC
- 4:25 PM Malaria and WNV in Maryland**
Brian Prendergast, Maryland Department of Agriculture
- 4:35 PM Culiseta melanura larval habitat identification and characteristics in the northeast**
Kimberly Foss, Northeast Massachusetts Mosquito Control and Wetlands Management
- 4:50 PM Sustaining Member Presentation**
Representative, Vendor TBA
- 50/50 Drawing after last presentation; must be present to win!**
- 5:00 PM Adjourn**
- 5:00 PM Silent Auction Final Bidding Event**
Final bids at 5:45 PM - Salon B & C
- 7:00 PM Hospitality Room - Courtney Terrace & Princess Anne (overflow seating)**

Thursday, February 22, 2024

7:00 AM Breakfast Buffet

Presiding: Jay Kiser, VMCA Secretary/Treasurer

- 8:00 AM *BEACONS update**
Michael Riles, Central Life Sciences
- 8:10 AM *Mosquito and viral diversity across Virginia**
Krisangel Lopez, Virginia Tech
- 8:25 AM *La Crosse encephalitis - making the case for a public health/vector control response**
Dr. Brian Byrd, Western Carolina University
- 8:45 AM Sustaining Member Presentation**
Representative, Vendor TBA
- 8:55 AM MAMCA update**
Tim DuBois, MAMCA Representative
- 9:05 AM What are these tiny critters swimming around in my larval sample bag?**
Rachel Kempf, Fairfax County Health Department
- 9:20 AM 1st Annual Photo Contest results**
Wes Robertson, Photo Contest Committee Chair
- 9:45 AM Break (hotel check-out)**
- 10:15  Lightning Round **
- ⚡ **The world around us**
Jay Kiser, Suffolk Mosquito Control
- ⚡ **Canva: puzzling but powerful**
Katherine Reutt, Chesapeake Mosquito Control
- ⚡ **Kids say the darndest things - mosquito edition**
Gina Serge, Henrico County Public Works
- ⚡ **Water reclamation plants**
Brian Prendergast, MD Dept of Agriculture
- ⚡ **Skeeter stuff**
Karen Akaratovic, Suffolk Mosquito Control
- ⚡ **What's a pond?**
Alex Riley, Suffolk Mosquito Control
- ⚡ **"The tournament of power," a farsighted adventure**
Wes Robertson, Henrico County Public Works
- ⚡ **How to train your dragon (fly)**
Rachel Kempf, Fairfax County Health Department
- Presiding: Karen Akaratovic, President Elect
- 11:00 AM VMCA Business Meeting & door prizes**
- 12:00 PM Adjourn**

Check the [VMCA website](#) for the most updated version of the agenda.

Submitted by President Elect Karen Akaratovic

TENTATIVE

TENTATIVE



VOLUNTEERS NEEDED

Please join a committee!



Sign-up before the annual business meeting for a chance to win a \$50 Amazon gift card!

2024 Election

The Virginia Mosquito Control Association is governed by a dedicated group of individuals on the Executive Board. Please take the time to vote in our upcoming 2024 Election.

Vote this year to be entered in a drawing for a \$50 Amazon gift card!

There are two candidates running for the position of First Vice President, two candidates for Secretary/Treasurer, and one new candidate for Industry Representative. Complete ballots including incoming President, President Elect, and Vice President were sent via email to membership. Voting will also be possible at the conference and will close at 5pm on Wednesday, February 21, 2024 with election results announced at the annual business meeting on Thursday, February 22, 2024. Contact Elections Committee Chair Penny Smelser with any questions (penelope.smelser@norfolk.gov).

Executive Board Offices in Progression



Past President
Carla Caulkins



President
Karen Akaratovic



President Elect
Lauren Lochstampfor



Vice President
Addison Weddle

Our 2023 President will become Past President, and those currently holding the offices of President Elect, Vice President, and First Vice President will advance to the next respective office as listed above.

continued next page

Candidate for First Vice President

Joshua Bernick

As a Rabies and Vector-borne Epidemiologist on the Vector-Borne Disease (VBD) Team at the Virginia Department of Health, I specialize in the intricate world of infectious diseases transmitted by vectors. My primary focus involves monitoring and managing cases of rabies, while also contributing to tick surveillance initiatives across the state. In this multifaceted role, I diligently review cases, maintain bite and animal testing data related to rabies, and actively participate in the broader mission of the VBD Team.

My journey into epidemiology began during the COVID-19 pandemic, where I served as a data analyst for the Virginia Department of Health. In this capacity, I played a pivotal role in data input, distribution of lab results, and ensuring data quality assurance—a foundational experience that laid the groundwork for my subsequent roles. Prior to my current position, I served as the Tick Surveillance Coordinator in Richmond, Virginia, where I identified areas of human-tick overlap across the state. Conducting field surveys to determine tick species composition, I worked on standardizing tick data entry surveys, educated the public on ticks and tick-borne diseases, and prepared tick samples for testing by esteemed institutions such as the CDC in Atlanta and the DVBD in Colorado.

My foray into mosquito surveillance and control began after graduating from Virginia Tech under the mentorship of Dreda Symmonds. As a Mosquito Biologist for the Works Department in Virginia Beach, I honed my skills and contributed to local efforts in mosquito management. During my graduate studies at Virginia Tech under the guidance of Dr. Sally Paulson, I delved deep into vector-borne diseases. Working with colonies of various mosquito species—*Aedes albopictus*, *Aedes aegypti*, *Culex quinquefasciatus*, *Anopheles quadrimaculatus*, *Ochlerotatus triseriatus*, and *Ochlerotatus japonicus*—I honed my skills and passion for understanding the intricacies of these vectors. My research interests have consistently revolved around vector-borne diseases, with a keen focus on Lyme disease and mosquito-transmitted viruses, including LaCrosse, Cache, West Nile Virus (WNV), and Zika. My graduate thesis, based on trapping mosquitoes around the town of Blacksburg in 2016, involved the development of an all-inclusive mosquito trap, which I am currently comparing to existing traps in terms of efficiency, ease of use, production feasibility, and cost-effectiveness. Additionally, I embarked on a proof-of-concept project during my graduate studies, initially focusing on using sentinel flocks for arbovirus screening. This project evolved into testing deer blood for Lyme due to the prevalence of the bacterium in southwestern Virginia, yielding intriguing results that underscore the complexity and interconnectedness of vector-borne diseases.

In summary, my decade-long experience in vector-borne disease surveillance underscores a commitment to the field and a deep-seated passion for safeguarding public health. I am eager to continue making meaningful contributions in this dynamic and vital area of expertise.



Candidate for First Vice President

Janice Pulver

Janice is the Operations Superintendent for York County Mosquito Control since the start of 2023. She graduated from James Madison University in 2014 with a BS in Geographic Science and minor in Environmental Science. During and after college she had seasonal jobs monitoring and banding endangered and threatened species of shorebirds in New Jersey and New York. In 2016 she started her career in Mosquito Control as the Mosquito Control Technician/Biology Assistant for Suffolk Mosquito Control. Wanting to move closer to her new home, and the stars aligning, she took the position at York County Mosquito Control as the Mosquito Control Technician in 2017.

Coinciding with working in Suffolk and York County, she also took a position identifying Antarctic and Chesapeake Bay larval fish samples for the Virginia Institute of Marine Science. In 2018 she was promoted to the Biologist position and held it for the next few years. Participating in local/state Mosquito Control organizations, she was the Coordinator for the Virginia Arboviral Surveillance Team from 2018-2021. She still actively participates in the group and creates the West Nile Positive and Eastern Equine Encephalitis maps for the varying areas across Virginia. Outside of the world of mosquitoes, she loves to go hunting, fishing, and spend time with her husband, two dogs, chickens, and turkeys.



Bits and Bites

Do you like beets?

Apparently *Aedes aegypti* do! [Melo et al. 2020](#) showed that gravid females prefer to lay their eggs in water infused with the compound geosmin over water alone. This molecule is a natural product of bacteria found in beet peels and *Ae. aegypti* females detecting this compound are likely associating it with microbes such as cyanobacteria that larval mosquitoes feed on. Adding this compound (or more cheaply, beet root extract or beet root peels) to oviposition cups could increase your egg collections!

-credit: AMCA webinar, 11/14/2023 (AMCA webinars [here](#))



Candidates for Secretary/Treasurer

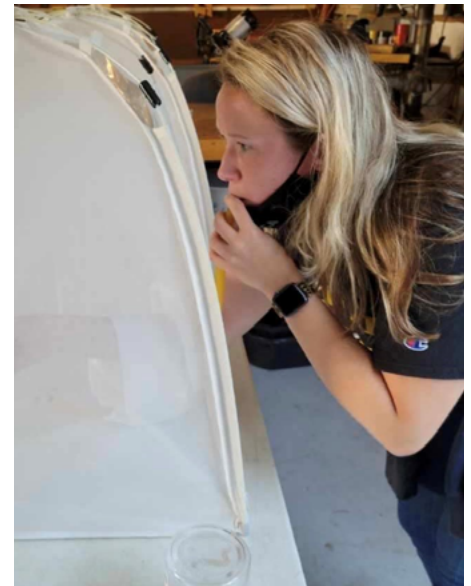
Jay Kiser

Jay Kiser has been a member of the Virginia Mosquito Control Association (VMCA) and a student of mosquito biology for over 17 years. He started his path at George Mason University and Old Dominion University where he received a bachelor's and master's Degree (respectively) in biology. In 2007, he started his mosquito career as a biology intern for the City of Chesapeake Mosquito Control Commission. In January of 2008, he became a biologist for the City of Suffolk Mosquito Control. During this time, he has remained active in local and state mosquito control groups: Secretary/Treasurer of VMCA from 2018-current, executive board member from 2012-current (excluding 2017), coordinator for TRAST and VAST, and board member of TMVCC. As a VMCA member, Jay has contributed numerous presentations to the annual conferences, participated in and chaired several committees, and helped to create VMCA's first student competition.



Katherine Reutt

Katherine Reutt received her Bachelor of Science degree in Chemistry with a minor in Biology in 2018 from Virginia Commonwealth University. Katherine is from Chesapeake, VA and so she decided to venture back home after college graduation. It was then that she started a seasonal biology internship with Chesapeake Mosquito Control Commission (CMCC). Since 2018, Katherine has worked in Chesapeake and has had the opportunity to learn more about entomology and mosquito control, while utilizing her previous laboratory experience. Katherine has been the Biologist I at CMCC for three years. She has also taken on additional roles within the commission, such as the Mosquito Control Information Team coordinator. The MC Information Team was initially organized by Katherine in March of 2022, and continues to serve its purpose as a positive community engagement/outreach tool for CMCC.



Katherine has been an active member of the VMCA for over five years. During that time, she has joined various committees, such as Merchandise, Information/Social, and Education among others. She has been a major contributor to the social media pages of the VMCA, along with writing and editing efforts made for The Skeeter. Katherine is the current chair of the Education Committee and has successfully organized the January Recertification Course and the Adult Identification Course that takes place in May.

Katherine enjoys her free time with her husband and their two German Shorthaired Pointers, Rudy, and Rosie. Katherine's previous experience within the VMCA, as well as her organizational skills and attentiveness make her a great candidate for VMCA Secretary.

Candidate for Industry Representative

Steve Molnar

This marks the start of my 24th year in mosquito control. I graduated from Northwest Missouri State with a degree in Geography, minoring in Geology. Then moved on to a close neighbor of yours - Towson State University where I got a Masters in Geography and Environmental Science. The goal was to teach cultural geography and that lasted two years at a junior college in Chicago. In 2000, I took a job at St. Louis County Vector to do their GIS work in Vector. Can you believe I failed the "what is a vector" question (side note, a vector to a geographer is a lot different). Well, the GIS work lasted about an hour after I was hired, and I need to learn a new profession! Like many in Vector Control the job landed in my lap and tried to learn everything I could heading up the larviciding unit. In 2003, ADAPCO came knocking with an offer when they went nationwide, and I spent sixteen great years there covering three different territories. In 2019, I signed on with Target Specialty Products as they were expanding in the Vector world.

It's always been a blast working in Vector, it may not be the easiest question to answer at a dinner party, "what do you do?", but you do get to tell some interesting stories. For example, I met my wife at St. Louis County 23 years ago, and after her pursuing a PhD in Parasitology and going to work for the Center for Disease Control, we've been married fifteen years and have three amazing children! I love to watch Liverpool Football Club and the St. Louis Cardinals as a little downtime and we really, really enjoy traveling - anywhere!



Proposed Bylaws Changes

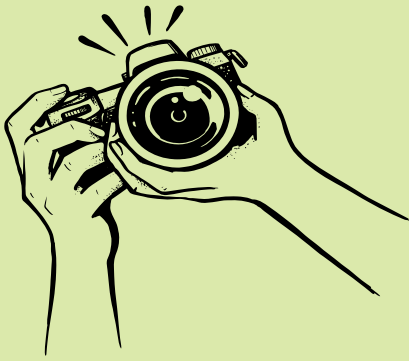
Please review the 2024 proposed bylaws changes on the [website](#).

These proposed changes will be voted on during the 2024 VMCA Business Meeting (February 22, 2024). The list of changes can be found below. The article on the website (and in the Summer Skeeter) will give you detailed explanations for the changes and the actual proposed wording in the bylaws document. Please take a look and be ready to share your opinion during the discussion and voting at the 2024 business meeting.

Proposed bylaws changes include:

- Splitting the duties of the VMCA secretary/treasurer into two separate executive board positions.
- Removing the first vice president board position and have the vice president as the entry-level position to the board.
- Verbiage changes and extra explanations where needed for clarity and consistency.

Submitted by Bylaws Committee Chair Jay Kiser



VOTE HERE

2023/2024 Central Life Sciences VMCA Photo Contest

1. Scan the Code
2. View the categories & photos
3. Place your votes using the drop down menu

Signing into an existing Google account may be necessary



Submitted by Photo Contest Committee Chair Wes Robertson

2023/2024 Student Poster Competition

For SCC's 2024 competition, we continued many of the changes implemented in 2023. To encompass research taking place in our broader region, we continued to invite students from colleges and universities within Virginia and its neighboring states: Kentucky, Maryland, North Carolina, Tennessee, Washington DC, and West Virginia. SCC members diligently canvassed relevant departments in schools across the region. We emailed 193 department heads, chairs, and directors from 84 schools. We are happy to announce that four posters were submitted from four universities in four states (including Washington DC).

In addition to keeping the increased number of schools invited to our competition, we also kept the additional prizes in 2024. First place will receive the Dr. Jorge Arias Award and \$500. Second place will receive a \$300 prize and third place will receive a \$200 prize. All four poster submitters will receive free student registration to the annual conference. Below is a table that shows all the poster submissions and who will receive the awards and prizes. All four posters will be displayed at the 2024 VMCA Conference and a question and answer session will take place during the afternoon break on Wednesday (2/21/2024). We invite you all to come, take a look, and talk with the students.

I would like to thank everyone for their hard work this year, not only the students that put so much effort into their posters and research, but also to my committee members that are always there to help. I want to send a special thanks to our poster judges: Wes Robertson, Stephen Panossian, and Katherine Reutt. We appreciate all the effort you put into grading these posters.

Place	Award	Student	School	Poster Title
1st	\$500, Free Registration	Funmilayo Egunjobi	Duke University	Identification of sodium channel mutations conferring pyrethroid resistance in <i>Aedes aegypti</i> mosquitoes
2nd	\$300, Free Registration	Benjamin Burgunder	University of Maryland, College Park	Site-specific community composition of primary West Nile virus vectors in Chicago does not explain fine-scale variation in modeling human cases
3rd	\$200, Free Registration	Jarin Taslem Mourosi	Catholic University of America	Zika and Dengue vaccine design by CRISPR engineering of T4 bacteriophage nanoparticle
4th	Free Registration	Shania Sanderson	Old Dominion University	Expanding LYMESIM: Simulating Population Dynamics and Tick-Borne Diseases in <i>Dermacentor variabilis</i> , <i>Amblyomma americanum</i> and beyond

Submitted by Jay Kiser, Student Competition Committee Chair

Spotlight on City of Portsmouth

The City of Portsmouth officially established a Mosquito Control Division back in 1947 with the absolving of the Malaria Control in War Areas program. The current state of Mosquito Control under the Public Works department started roughly around 1995.

Education & Outreach

While outreach is important year-round, a large push in the spring and early summer is made to reach out and inform the public of services provided and what they can do around the house to assist the city. Yearly outreach programs, free of charge, are provided by our partners at Paradise Creek Nature Park, Hoffler's Creek Wildlife Preserve, and Norfolk Naval Shipyard in Portsmouth, just to name a few.

Source Reduction

A large portion of the off-season is dedicated to finding potential breeding habitats and eliminating tire dumping sites. These sites can move throughout the city and cause major issues during the season for nearby neighborhoods. Portsmouth also utilizes truck-mounted larviciding operations throughout the season for all roadside ditches and storm drain

basins. This protocol has been very successful in knocking down Culex populations to minimal levels over the past decade.



Surveillance

Surveillance is one of the primary functions of Mosquito Control in Portsmouth, as it is directly connected to all other aspects of our program. The city sets routine traps weekly, and while the primary trap is the CDC light trap, we also utilize gravid traps and faye-prince traps. We are currently running a multi-year test on CDC traps with different color lights to determine which color is most effective. Currently,

Portsmouth does not have testing capabilities, but we are aiming to add this to our program as soon as possible to increase overall effectiveness.

Larval and Adult Control

Outside of the preemptive strike using the truck-mounted larvicide, our division thoroughly searches public areas for breeding habitats and treats them as necessary. While Portsmouth is almost exclusively urban, there are pockets of woodland areas that can produce a hefty amount of Aedes species, if given the chance. When larviciding is not producing the desired results, we have four ULV sprayers ready to go to assist in knocking down the populations.

The city is divided into 9 sections, or routes, that are designed to be

sprayed in a four-hour period. This gives us the ability to complete a city-wide spray, if necessary, in approximately 3 days. Adult spraying operations are based on a combination of surveillance numbers, observations from field techs, and calls from citizens. Neighboring cities that find vector-borne diseases can also heighten our awareness of population levels.

continued next page

Portsmouth Spotlight Continued



Craney Island, the Air Force, and Aerial Spraying

If you ask anyone about Portsmouth mosquitoes, they will most likely tell you about Craney Island, a two-square mile area that is primed for Aedes salt marsh mosquitoes. It is used to store dredge material from the James and Elizabeth Rivers, and when the sediment dries out, it leaves the perfect breeding habitat for mosquitoes.

Portsmouth Mosquito Control works hand in hand with the

Army Corps of Engineers to inspect the island weekly for potential breeding. When found, an aerial larviciding mission is called in to spray the affected acreage. Unfortunately, there are times when surveillance fails, or inclement weather prevents us from completing a mission. When that happens, an aerial adulticide treatment may take place. During these treatments, there may crossover to neighboring communities in the City of Portsmouth. Thanks to the presence of military complexes

nearby, Portsmouth may also take part in treatments performed by the Air Force Reserve, utilizing an AC130 flying approximately 300 feet from the ground. It is certainly a sight to see.

Portsmouth has a very small crew, but we are dedicated to implementing the best program possible.

**Submitted by Tim DuBois,
Interim Director of Public
Works, City of Portsmouth**

Don't miss your chance
at the annual conference

50/50 RAFFLE

\$1 per ticket, \$6 for 5 tickets

Purchase from Karen & Ann



WINNER DRAWING

Wed, Feb 21 after
last presentation.
Ticket must be
present to win!!!



1/2 \$\$\$ goes to SCC
1/2 to 1 lucky winner!

VIRGINIA MOSQUITO CONTROL ASSOCIATION

SILENT AUCTION 2024

PLEASE DONATE

All proceeds benefit the VMCA Student Poster Competition

● ● ●

WE ARE LOOKING FOR A VARIETY OF ITEMS, INCLUDING BUT NOT LIMITED TO:

- Vector themed items
- Tools
- Artwork
- Antiques/Historical items
- Gift certificates
- Treasures
- Themed Prize basket
- Apparel

Group donations by committee, agency, or vendors are always appreciated



Please drop off items at meeting registration desk by noon, February 20, 2024.

Items may also be sent/dropped off before the meeting to:

Suffolk Mosquito Control
800 Carolina Road, Suffolk, VA, 23434

VMCA Annual Conference

February 20-22, 2024
Virginia Beach, VA.

Conference information:



What does this support?



For more information contact:

Jay Kiser
virginiamosquito@gmail.com

**Submitted by
Kaitlyn Price, SCC**

Cabinets of Curiosity

While history has shown that people carry a deep fascination with the natural world, it also demonstrates human proclivity to gather evidence in a physical form. To solve the mysteries of science we often reference specimens as an important source of biological information. These specimens help develop a baseline of understanding as to significance, functionality, and/or cultural

relevance. Specimens also help track points of origin, geographic mobility, genealogy, and environmental change. This knowledge can then be applied to critical issues facing society such as health crisis's, resource deprivation, crop destruction, environmental sustainability, and threat analysis. And that's just the tip of the iceberg!

While it may seem obvious now, the reason for biological specimen collection historically can be summed up in one word, "curiosity". Specimens have allowed "man" to study the characteristics and relationships among living things to answer some very fundamental questions such as "why insects transform" for example. While the questions



Left to right: SWI educational specimen board; basic educational specimen display

have gotten more complex the need to resolve our curiosity has never waned and we continue collecting even those specimens with which we are intimately familiar. That said, the VMCA is not immune to this habitual scientific behavior, and it is a known fact that a lot of member organizations conduct mosquito surveillance regularly.

The Curations and Preservation Committee asks you to contribute to our "Cabinet of Curiosity"

This surveillance perpetuates access to a wide range of mosquito specimens within a single season

or across multiple seasons. It is for the purpose of sharing knowledge and a desire to educate others that The Curations and Preservation Committee asks you to contribute to our "Cabinet of Curiosity" by donating any mosquito specimens (both larval and adult) you have procured. All mosquitoes will be collected at the 2024 VMCA Annual Conference after which members

of my team will prepare, label, and present your donations in a universal collection that can be shared at educational and other events where VMCA members are present. While much more simplistic, Henrico County has an educational display whose intent is to improve observation and promote familiarity among seasonal staff members with those mosquitoes they will soon be collecting. However, a comprehensive VMCA collection will allow for an encompassing of all of Virginia's mosquito species making our collective seasonal staff members stronger and better skilled to tackle their work as the primary mosquito identifiers.

Submitted by C&P Committee Chair Wes Robertson

2023 Tour de Skeeter



2023 Tour de Skeeter participants

On October 21, VMCA's Student Competition Committee (SCC) hosted its 5th annual Tour de Skeeter (TdS) fundraising event. As usual, this event was a huge success for the SCC. We had 23 participants registered and 4 sponsorships from VMCA sustaining members. After expenses, we raised over \$550!

Due to rain, our original weekend planned for the event (October 14) was washed out. Luckily, we had beautiful October weather for our backup weekend on the 21st; crisp morning air, sunny afternoon, and a nice breeze throughout the day. Sadly, not everyone was able to join us on the rescheduled date, but those that did had a great time. As usual, we all arrived at different locations along the Capital Trail to bike/walk and enjoy the autumn weather. At lunchtime, we all met at Cul's Courthouse Grille across from the Charles City Courthouse. Cul's was an excellent choice this year; delicious food, diverse selection of drinks, and a fantastic outdoor patio for the group.

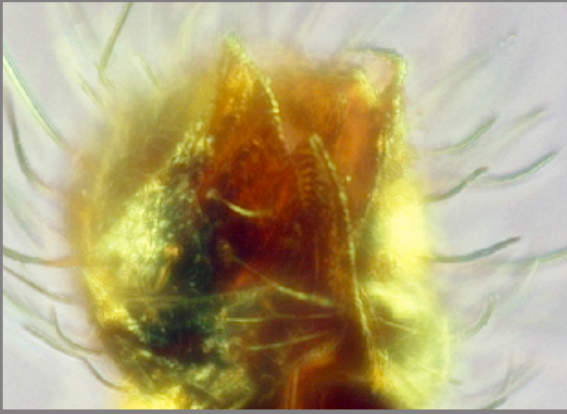
I would like to thank all that contributed to this event: SCC committee members, TdS participants/registers, Cul's, and especially Karen Akaratovic for putting this all together. I would like to send out a huge thank you to the sustaining members that made this event possible: Steve Molnar with Target Specialty Products, Jeff Hottenstein with Clarke, Dan McCombie with Azelis, and Jeff O'Neill with Central Life Sciences. Sponsorships were used to purchase shirts, prizes, and food for the participants, while event registration fees help facilitate future VMCA student competitions.

Submitted by Jay Kiser, SCC Chair



L-R: Karen Akaratovic and her family on bikes in front of the Charles City Courthouse; Matt Absi realizing his name was drawn from the hat (literally) and won the \$200 Amazon gift card; 2023 TdS T-shirt design by Karen Akaratovic, with all the 2023 sponsors on the back.

What's That Answer



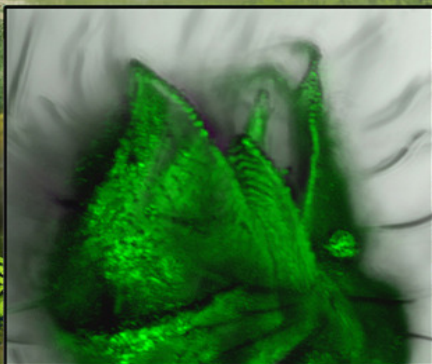
That is a detailed view of the piercing mouthparts of a newly discovered fossil male mosquito. In fact, there were two male mosquitoes of the same species found preserved in amber deposits from the Lower Cretaceous Period (that's over 100 million years old!) in Lebanon and their mouthparts suggest that they were blood-feeding alongside females!

[Read the article](#) published December 4, 2023 by Azar et al. in *Current Biology*

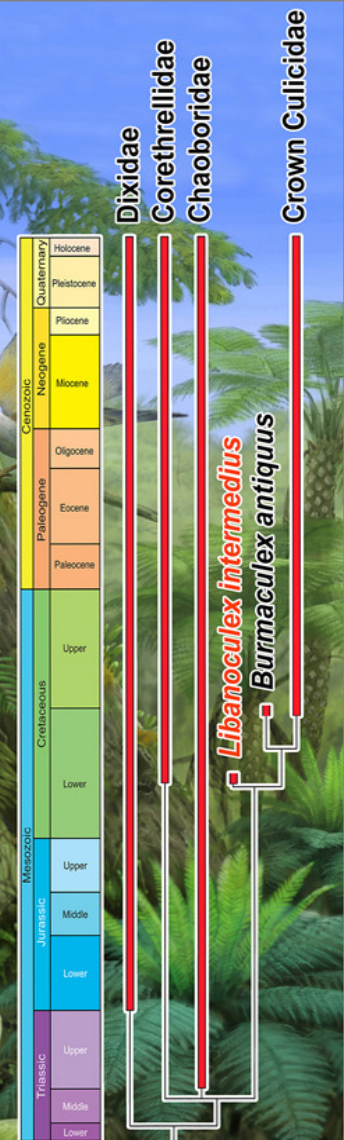


Libanoculex intermedius:
Earliest mosquito from the Lower Cretaceous amber of Lebanon

Fossil male mosquito with developed, denticulate & hematophagous mouthparts



Earliest-diverging mosquito lineage forming a new subfamily



Legislative News

EPA Approves Additional Use of Biopesticide to Help Suppress Mosquito Populations that Spread Diseases

On Dec. 5, 2023, EPA approved an amendment to expand use of the mosquito control product ZAP Males®, a biopesticide that can suppress invasive local populations of *Aedes albopictus* or Asian Tiger Mosquitoes, which can spread numerous diseases of significant human health concern, including dengue, Zika, and chikungunya. Novel, non-chemical pesticides to control mosquitoes are critical for public health, particularly in overburdened and vulnerable communities. This amendment allows use of the product in all U.S. states and territories. Previously, the product's use had been limited to the states of California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Massachusetts, Maine, Maryland, Missouri, New Hampshire, New Jersey, Nevada, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont, West Virginia, and the District of Columbia.

ZAP Males® are live male mosquitoes that are infected with a particular strain of the *Wolbachia* bacterium, which are common, naturally occurring bacteria found in many insect species. Male mosquitoes do not bite people. Instead, infected males mate with females from the wild population, and the *Wolbachia* strain of bacteria ensures that no viable offspring are produced. Thus, this method can be used to suppress wild *Aedes albopictus* mosquito populations.

Aedes albopictus mosquitoes are an invasive species in the U.S. that is rapidly expanding its range. These mosquitoes can carry diseases such as dengue, Zika, and chikungunya; therefore, their control is important to public health, including in densely populated areas that often contain overburdened and vulnerable communities. Because climate change is further expected to increase the range of mosquitoes in the U.S., the use of chemical pesticides is similarly expected to increase. As *Aedes albopictus* mosquito breeding habitats are primarily associated with humans, urban areas are disproportionately affected by their presence. Thus, these communities could be at higher risk for exposure to *Aedes albopictus* mosquitoes and potentially greater risk for both disease transmission and chemical pesticide exposure from mosquito control efforts. The use of Zap Males® mosquitoes has the potential to reduce the use of chemical pesticides used in mosquito control, while simultaneously reducing populations of mosquitoes that spread disease in the first place.

The ZAP Males® product was originally registered in 2017 and was allowed to be used in certain northern, mid-atlantic, mid-western, and western states. In the amended application, MosquitoMate, the registrant of ZAP Males®, provided additional efficacy data for southern states in different climate zones to support expansion of use to all US states and territories. EPA approved the amendment after extensive evaluation of the provided data. The expanded use is expected to result in negligible exposure to humans and have no negative impacts on non-target organisms in the environment. EPA also determined that the use of this product would not result in direct or indirect effects to federally endangered or threatened species and made a "no effect" determination for these species and their designated critical habitats.

continued next page

Legislative News Continued

EPA will continue to maintain the following requirements in the amended registration regarding monitoring for female *Aedes albopictus* ZAP-infected mosquitoes:

- Bi-annual reporting to EPA to ensure that quality control measures are adhered to, including reporting of any production batch that exceeds one female per 250,000 males, and if there is any reduction in ZAP Males® fitness and viability.
- Distribution of any batches of ZAP Males® that do not pass the approved manufacturing process quality standards must halt.
- Monthly environmental monitoring for and bi-annual reporting of results regarding ZAP-infected female mosquitoes in the environment. This requirement is expanded to include each climate zone in the U.S., thus increasing the monitoring for expanded use area.
- Mandatory reporting within 30 days to EPA if any ZAP-infected females are detected in the environment.

Additionally, the amended registration is term-limited and will expire on December 31, 2028, five years from the date of the amended registration, which will provide an opportunity for EPA to re-evaluate the use and effectiveness of this product.

Additional information on the MosquitoMate ZAP Males® registration, amendment and experiment use permit (EUP) can be located at EPA public websites:

- [2023 FIFRA registration amendment](#)
- [2017 FIFRA registration](#)
- [2016 Experimental Use Permit \(EUP\)](#)
- [EPA's Overview Emerging Mosquito Control Technologies](#)

**Submitted by Legislative
Committee Chair
Randy Buchanan**

*“As with all pesticides,
in addition to federal registration, all pesticides must be
registered in the state. To date, while registered with EPA, MosquitoMate
ZAP Males® is not currently registered in Virginia and therefore is not legal for use.
Given the announcement was just made, I would expect a lag time prior to the product
being registered and available.”*

-Liza Fleeson Trossbach, Program Manager
Office of Pesticide Services
VDACS

A Chesapeake Float



**IF YOU GIVE
CHESAPEAKE MC
A FLOAT IN THE
CHRISTMAS PARADE**



**COLLABORATION FROM
Chesapeake Mosquito
Control Commission**

**SUBMITTED BY
Katherine Reutt**

continued next page

A Chesapeake Float Continued

If you give Chesapeake MC a float in the Chesapeake Christmas Parade,



we're going to ask employees and their families to participate.

When we get enough people involved,



we're going to find out the parade theme.



We will probably ask for all things "peppermint".



When those are finished, we will ask for a trailer to decorate.



Then, we will want to add an Argo onto the trailer so that it doesn't seem empty.



When the Argo is decorated,



we might notice that the back is the perfect place for a Christmas tree.

So, we will probably ask for old, used tires to make into a Christmas tree.



When the tire tree is finished, we will want to add ornaments.

We will start putting lights on the tree.



We might get carried away and strand lights on every rail of the trailer.



We may even end up getting lights for us to wear as well.



When we're done, we'll probably want to add some presents for under the tree.



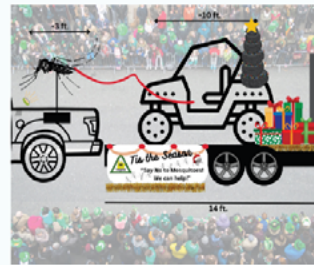
We will have to wrap a bunch of boxes with paper and bows.



We will get the boxes wrapped, and place them in the back of the trailer.

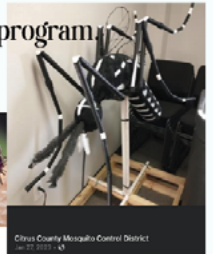


We will adjust them a few times to get them all to fit.



Then, we will probably ask how to make a giant mosquito to look like it's pulling the Argo.

So, we will find out that a MC dept. from FL has made one for their own outreach program.



Citrus County Mosquito Control District

1,446 followers - 248 following

Citrus County Mosquito Control District's Office Facebook Page

https://www.facebook.com/citrusmosquito

Contact via Message

Following

A Chesapeake Float Continued

We will ask to see plenty of pictures and a list of all the materials they used.

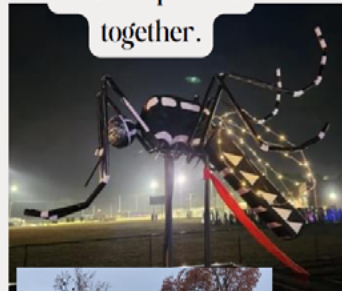


When we look at the pictures, we'll get ready to make our own.

We will use foam cubes, fabric, paint, PVC pipes, wooden dowels, and lots of glue and tape!



We will put it all together.



When the giant mosquito is finished...

We will need a sign to put our names on, so that everyone watching the parade knows who we are.



Then, we'll want to hang our sign on the side of the float.



Which means we'll need... more tape!

We'll hang up our sign and stand back to look at the finished float.



Looking at the float will remind us that we are so very excited to be in the parade.



So... we will ask if everyone is ready.



And chances are, if we have our awesome MC Information Team members participating, then it is going to be a joyful experience being in the Chesapeake Christmas Parade.



US EPA Office of Chemical Safety and Pollution Prevention IPM Webinar

Submitted by Katherine Reutt Chesapeake Mosquito Control

Bits & Bites



Encountering Bed Bugs While Traveling January 30, 2024 2-4 PM EST

This [free webinar](#) will provide participants with comprehensive information on bed bugs including how to identify them, ways they spread, inspections (when and how), preventing exposures, and control measures. Our experts will provide practical information to help you reduce the likelihood of bringing bed bugs home and what to do if you find they've followed you home. Enlisting the help of a pest management professional to deal with home infestations will also be discussed.

Remembering Dennis Salmen

Dennis Salmen

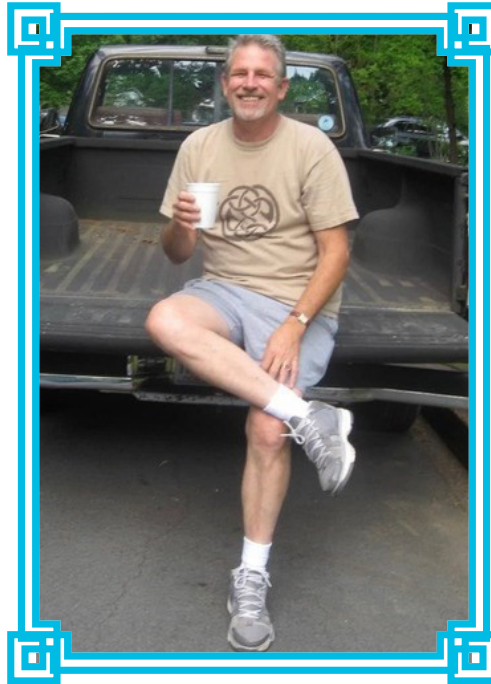
January 31, 1955 - October 27, 2023

Dennis Aloysius Salmen was a loving father, brother, and friend. He passed away on October 27th, 2023 at the age of 68 after an extended fight with mesothelioma.

Dennis was born in Chicago, Illinois to Arthur and Carol H. Salmen on January 31st, 1955. He was raised in Pennsylvania until the age of 10 when he moved to Charlotte, NC where he created a life for himself. He graduated from UNCC (University of North Carolina: Charlotte) with a Bachelor's in Biology in 1978. He went on to pursue a career with the Mecklenburg County Department of Public Health and worked there for over 30 years before retiring in 2012.

Dennis loved playing and watching basketball, billiards, and made it a point to catch football games in the stadium or on TV every Sunday. He treasured the time connecting with life long friends and retirement crew. He had an enthusiasm for music and art, often leading him to share stories for hours. Most importantly, he gained immense joy from spending quality time with his family and took pride in his role as a devoted father.

He worked hard and had an endless list



of tasks, he was never the type of person to sit still. Whether it was getting stuff done around the house, volunteering, spending time with his family, or working well-past his retirement years with various organizations from his time with the health department, he kept himself busy. He was a loving and caring person who gave as much as he could to others.

He leaves behind his two children Pvt. Alec Salmen (KS) and Haley

Salmen (NC) his two sisters Tara Ellinger (FL) and Laura Robinson (John) (NC), two brothers Michael Salmen (Mickie) (CA) and Max Heller (NC), and many extended family and friends (especially Clayton Cone (NC) who helped Dennis until the end).

"We know life's never measured by how many years we live, but by the kindly things we do and the happiness we give."

- Helen Steiner Rice

In lieu of flowers, donations may be made in memory of Dennis, to the Levine and Dickson Hospice House in Huntersville, NC.

Published 11/8/2023 in *The Charlotte Observer* (link [here](#)).

Jurisdictions, Organizations, & Resources

Virginia mosquito control jurisdictions

- [Alexandria Health Department](#)
- [Boykins, Town of](#)
- [Chesapeake Mosquito Control Commission](#)
- [Chincoteague Mosquito Control](#)
- [Fairfax County Health Department](#)
- [Gloucester County Mosquito Control](#)
- [Hampton Environmental Services](#)
- [Henrico County](#)
- [Joint Base Langley-Eustis](#)
- [Newport News Vector Control](#)
- [Norfolk Vector Control](#)
- [Poquoson Mosquito and Drainage](#)
- [Portsmouth Mosquito Control](#)
- [Prince William County Mosquito & Forest Pest Management](#)
- [Suffolk Mosquito Control](#)
- [Virginia Beach Mosquito Control](#)
- [Williamsburg Public Works](#)
- [York County Mosquito Control](#)

Know of another jurisdiction or resource to add?
Please submit them to the [Editor](#).

Neighboring, regional, & national mosquito control organizations

- [American Mosquito Control Association](#)
- [Mid-Atlantic Mosquito Control Association](#)
- [Delaware Department of Natural Resources and Environmental Control](#)
- [Maryland Department of Agriculture](#)
- [New Jersey Mosquito Control Association](#)
- [North Carolina Mosquito and Vector Control Association](#)
- [Northeastern Mosquito Control Association](#)
- [South Carolina Mosquito Control Association](#)
- [Georgia Mosquito Control Association](#)
- [Florida Mosquito Control Association](#)

Other resources

- [Virginia Department of Health](#)
- [Centers for Disease Control & Prevention](#)
- [Fairfax County Education and Outreach Materials](#)
- [Northeast Regional Center for Excellence in Vector-borne Diseases](#)
- [VMCA Employment Opportunities](#)
- [AMCA Career Center](#)

SUBMISSIONS WANTED!

If you have ANY vector-related news, photos, stories and are willing to share it in an upcoming newsletter or on social media, please send it in!!

Email the Editor, Karen Akaratovic at kakaratovic@suffolkva.us or [submit online](#).

2023 Sustaining Members

The VMCA gratefully acknowledges the support of the following sustaining members for 2023. Without their generous contributions, much of what we do would not be possible. Please do not hesitate to contact them. They are here to help you!



Agricultural &
Environmental
Solutions

Azelis

Dan McCombie
(314) 541-1972

daniel.mccombie@azelis.com



Central Life Sciences

Jeff O'Neill
(302) 312-3950

joneill@central.com



Clarke

Jeff Hottenstein
(703) 498-9362

jhottenstein@clarke.com



Co-Diagnostics

Chuck Berg
(801) 455-0332

c.berg@codiagnostics.com



Frontier Precision

Chad Minter
(208) 420-2778

chad@frontierprecision.com

Summit... responsible solutions.

Summit Chemical

Zach Cohen
(443) 250-6500

zcohen@summitchemical.com



Target

Steve Molnar
(470) 432-3134

steve.molnar@target-specialty.com



Valent

Jim Andrews
(910) 547-8070

james.andrews@valentbiosciences.com



Veseris

Brock Verworn
(571) 296-6976

brock.verworn@veseris.com

2023 VMCA Committees

COMMITTEE NAME	CHAIRPERSON	CURRENT MEMBERS
Annual Meeting (Hospitality Room)	Carol LaLiberte carolynlaliberte@gmail.com	John Cole
Annual Meeting (Local Arrangements)	Charles Abadam cabadam@suffolkva.us	Tim DuBois, Jay Kiser, Carol LaLiberte, Katherine Reutt, Josh Smith, Joshua Snyder
Annual Meeting (Program/Agenda)	Karen Akaratovic kakaratovic@suffolkva.us	Tim DuBois, Jay Kiser, Katherine Reutt, Josh Smith
Annual Meeting (Vendor Planning)	Zachary Cohen zcohen@summitchemical.com	
Audit	Penelope Smelser penelope.smelser@norfolk.gov	Michael Bowry, Amber Rymer
Bylaws	Jay Kiser jkiser@suffolkva.us	Charles Abadam, Josh Smith, George Wojcik
Curations & Preservation	Wes Robertson rob106@henrico.us	Karen Akaratovic, Andy Lima, Lauren Lochstampfor
Education	Katherine Reutt kreutt@cityofchesapeake.net	Karen Akaratovic, Jennifer Barritt, Alex Cumbie, Joanna Reinhold, Wes Robertson, Lisa Wagenbrenner
Elections	Carla Caulkins ccaulkins@cityofchesapeake.net	Andy Lima, Penelope Smelser
Historian	Tim DuBois dubois@portsmouthva.gov	Amanda Taglieri
Information	Karen Akaratovic	Tim DuBois, Jay Kiser, Andy Lima, Kaitlyn Price, Katherine Reutt, Gina Serge
Legislative	Randy Buchanan buc06@henrico.us	Katherine Reutt
Membership	Jay Kiser	Karen Akaratovic
Merchandise	Penelope Smelser	Tim DuBois, Lindsey Faw, Lauren Lochstampfor, Taik Phillips, Katherine Reutt, Lisa Wagenbrenner
Nominating	Wes Robertson	
Photography	TJ Carner carner@nnva.gov	Melissa Allard, Curtis James, Taik Phillips, Joanna Reinhold, Janice Pulver, Gina Serge, Penelope Smelser
Public Relations	Penelope Smelser	
Special Awards	Jennifer Barritt jbarritt@vbgov.com	Lindsey Faw
Student Competition	Jay Kiser	Karen Akaratovic, Alexandra Cumbie, Tim DuBois, Ann Herring, Kaitlyn Price, Wes Robertson
Technical Support	Charles Abadam	Janice Pulver
Website	Karen Akaratovic	Alexandra Cumbie, Lindsey Faw, Wes Robertson
Ad-hoc Photo Contest	Wes Robertson	

Sign up for a 2024 Committee and you'll be entered to win a \$50 Amazon card !!

Read about the committees in the [VMCA Book of Guidelines](#).

2023 VMCA Executive Board

THE SKEETER

OFFICIAL NEWSLETTER
OF THE
VIRGINIA MOSQUITO
CONTROL ASSOCIATION

Skeeter Production Team

COMMITTEE CHAIR/ NEWSLETTER CONTACT

Karen Akaratovic
Suffolk Mosquito Control
800 Carolina Road
Suffolk, VA 23434
(757) 514-7608
kakaratovic@suffolkva.us

COMMITTEE MEMBERS

Tim DuBois
Portsmouth Mosquito Control
duboist@portsmouthva.gov

Jay Kiser
Suffolk Mosquito Control
jkiser@suffolkva.us

Andy Lima
Fairfax County Health Department
andrew.lima@fairfaxcounty.gov

Kaitlyn Price
Virginia Beach Mosquito Control
kcprice@vb.gov

Katherine Reutt
Chesapeake Mosquito Control
kreutt@cityofchesapeake.net

Gina Serge
Henrico County Public Works
ser089@henrico.us

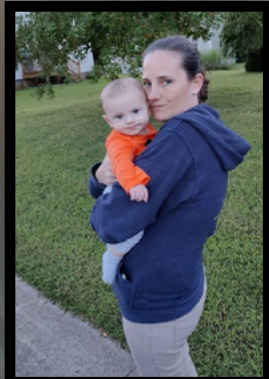
EDITORIAL REVIEW VMCA Executive Board

PHOTOGRAPHY IN THIS ISSUE:
KAREN AKARATOVIC, JAY KISER,
WIKIMEDIA COMMONS, OTHERS
NOTED THROUGHOUT



Connect with us!

FB: facebook.com/mosquitova
IG: @virginiamosquitocontrol



President
Carla Caulkins
ccaulkins@cityofchesapeake.net

First Vice President
Addison Weddle
weddlea@portsmouthva.gov



Past President
Wes Robertson
rob106@henrico.us

**Secretary/
Treasurer**
Jay Kiser
jkiser@suffolkva.us



President Elect
Karen Akaratovic
kakaratovic@suffolkva.us

Interim Industry Representative
Zachary Cohen
zcohen@summitchemical.com



Vice President
Lauren Lochstampfor
lauren.lochstampfor@fairfaxcounty.gov

MAMCA Representative
Tim DuBois
duboist@portsmouthva.gov



The Skeeter is the official publication of the Virginia Mosquito Control Association. The VMCA membership is encouraged to submit articles, reviews, photography, and any other interesting facts or tidbits for publication. Submissions can be sent to Karen Akaratovic: kakaratovic@suffolkva.us

