



# The Landing Rate Count

[www.scmca.net](http://www.scmca.net)

Newsletter of the South Carolina Mosquito Control Association

February 2017 – Vol 43 • Issue 1

Editor: Robert Cartner

## The President's Message

**Dr. Chris Evans**



**Dr. Chris Evans -  
2017 SCMCA President**

My name is Chris Evans. I started with the South Carolina Department of Health and Environmental Control in August, 2001, just in time to welcome West Nile virus to South Carolina in 2003. Since then, I've seen imported human cases of emerging infectious diseases like chikungunya, dengue, and Zika due to outbreaks in nearby tropical countries and territories frequented by South Carolina travelers and missionaries. While our current attention has been focused on Zika virus, the finding that Mayaro virus, another mosquito-borne disease, has been circulating in the Caribbean is of concern. Such a finding reminds us that additional viruses may pose threats in the future, and

we always need to be vigilant when protecting public health.

In what should be the coldest month of the year in South Carolina, February has brought warm weather, thunderstorms with lightning, early blossoms, and pollen – the likes of which I can't ever remember. We can only hope that the earlier-than-normal warmer weather doesn't bring an earlier-than-normal mosquito season, with earlier-than-normal mosquito-borne diseases.

I would like to say thank you to last year's SCMCA President, Stacy Harris, and all of the board members for their hard work and time in preparing for the summer workshop and annual meeting, among other duties. I would also like to welcome in the new Vice President, Robert Cartner, and the new members on the board. As always, we thank our sustaining members for their support of the association.

Please hold the date of June 1, 2017, for the annual Summer Workshop at the Santee Cooper Somerset Recreation Facility in Pinopolis, SC. Some topic ideas for the Summer Workshop include mosquito biology, ULV larviciding, backpack use and calibration, BG sentinel trap operation, conducting a mosquito spray mission, deciphering a pesticide label, and pesticide safety. Please let me know if you have any ideas for topics that you would like to see covered in the workshop. Also, please plan to attend the annual meeting at Ocean Drive Beach & Golf Resort in North Myrtle Beach, SC, on November 1-3, 2017.

Please be sure to share topics of interest, training opportunities, and information regarding your program or agency to Robert Cartner for inclusion in the newsletter. Have a great, and hopefully uneventful, year!

### In This Issue

- President's Message .....[1](#)
- SCMCA Sustaining Members.....[2](#)
- SCMCA Sustaining Members cont...[3](#)
- SCMCA Regions .....[3](#)
- Regional Representative Bios .....[4](#)
- 44<sup>th</sup> SCMCA Annual Meeting.....[5](#)
- 44<sup>th</sup> SCMCA Annual Meeting cont. ...[6](#)
- Obtaining a Non-Commercial License for Mosquito Control.....[7](#)
- Letter from Mid-State Beekeepers Association.....[7](#)
- A History of Malaria in S.C. ....[8](#)
- Species Spotlight: *Culex coronator* .[9](#)
- 2017 Calendar of Events .....[10](#)
- 2017 Summer Workshop Announcement .....[10](#)
- Web Resources .....[11](#)
- Zika Virus Resources .....[11](#)
- SCMCA Membership Application..[12](#)
- 2017 SCMCA Board of Directors ...[13](#)

### Save The Date

#### SCMCA Summer Workshop

Pinopolis, SC  
June 1, 2017

#### SCMCA 45th Annual Meeting

North Myrtle Beach, SC  
November 1-3, 2017

# 2017 SCMCA Sustaining Members

*Thank you for your time and contributions!*

## ADAPCO Innovative Mosquito Solutions,

an AZELIS Americas Company

Trey English  
466 Pedrick Rd  
Quitman GA 31643  
(866) 829-0275 office  
(229) 300-0091 cell  
(866) 330-9888 fax  
TENGLISH@myadapco.com  
[WWW.MYADAPCO.COM](http://WWW.MYADAPCO.COM)  
[WWW.AZELISAMERICAS.COM](http://WWW.AZELISAMERICAS.COM)



## Allen Aviation, Inc.

Al and Shanda Allen  
150 Shanda Ln  
Aynor SC 29511  
(843) 358-3583 office  
FLYALLEN@sccoast.net  
[WWW.ALLENAVIATION.COM](http://WWW.ALLENAVIATION.COM)

*Allen Aviation, Inc.*  
*Aynor, S.C.*

## AllPro Vector Group

Joe Andrews  
640 Griswold St  
Northville MI 48167  
(919) 343-8440 cell  
(248) 773-7460 office  
JOEA@allprovector.com  
SALES@allprovector.com  
[WWW.ALLPROVECTOR.COM](http://WWW.ALLPROVECTOR.COM)



## AMVAC Chemical Corporation

Peter Connelly  
751 Ocracoke Sq SW  
Vero Beach FL 32968  
(772) 563-0606 office  
(772) 205-5280 cell  
PETERC@amvac-chemical.com  
[WWW.AMVAC-CHEMICAL.COM](http://WWW.AMVAC-CHEMICAL.COM)



## Backed By Bayer

Gordon Morrison  
Crop Science Division  
Environmental Science  
2 TW Alexander Dr  
Research Triangle Park, NC  
27709-2014  
(919) 549-2535 office  
(919) 452-7145 cell  
gordon.morrison@bayer.com  
[WWW.BACKEDBYBAYER.COM](http://WWW.BACKEDBYBAYER.COM)



Science For A Better Life

## Central Life Sciences

Steve Sullivan  
2136 Sugar Maple Ln NW  
Acworth GA 30101  
(770) 966-5121 office  
(404) 971-2556 cell  
SRSULLIVAN@central.com  
[WWW.CENTRALLIFESCIENCES.COM](http://WWW.CENTRALLIFESCIENCES.COM)



## Clarke Mosquito Control

Joe Strickhouser  
PO BOX 9364  
Charlotte, NC 28299  
(704) 756-5837  
JSTRICKHOUSER@clarke.com  
[WWW.CLARKE.COM](http://WWW.CLARKE.COM)



## Duke Energy Carolinas

Tommy Bowen  
13339 Hagers Ferry Rd  
Huntersville NC 28078  
(704) 996-5219 cell  
(980) 875-5422 office  
TOMMY.BOWEN@duke-energy.com  
[WWW.DUKE-ENERGY.COM/SOUTH-CAROLINA.ASP](http://WWW.DUKE-ENERGY.COM/SOUTH-CAROLINA.ASP)



## EcoChem, LLC

John Kinsey  
130 Pearson Rd  
Sumter SC 29150  
(803) 847-0724 office  
JKINSEY@ecochemllc.com  
[WWW.ECOCHEM.COM](http://WWW.ECOCHEM.COM)



## Electronic Data Solutions

Ryan Pierson  
PO BOX 31  
Jerome ID 83338  
(208) 324-8006  
elecdata@elecdata.com  
[WWW.ELECDATA.COM](http://WWW.ELECDATA.COM)



# 2017 SCMCA Sustaining Members, continued

## Gil Manufacturing, Inc.

Ted Gilreath  
807 Oliver Ct  
Montgomery AL 36117  
(334) 284-8111  
(800) 445-0180  
GILMOSQUITO@charter.net  
[WWW.GILMANUFACTURINGINC.COM](http://WWW.GILMANUFACTURINGINC.COM)



## Mosquito Control Engineering Services (MCES), LLC

Carlos Gonzalez  
2499 Old Lake Mary Rd STE 102  
Sanford FL 32771  
(321) 363-4977  
CARLOS@mymces.com  
[WWW.MYMCES.COM](http://WWW.MYMCES.COM)



## Santee Cooper

John Grant  
PO BOX 29461  
1 Riverwood Dr  
Moncks Corner SC 29461  
(843) 761-8000 x4407  
JOHN.GRANT@santeecooper.com  
[WWW.SANTEECOOPER.COM/MOSQUITOCONTROL](http://WWW.SANTEECOOPER.COM/MOSQUITOCONTROL)



## Total Tree & Lake Care, Inc.

Todd Stephenson  
928 Knollwood Ct  
Murrells Inlet, SC 29576  
(843) 651-8733  
[WWW.TOTALTREEANDLAKECARE.COM](http://WWW.TOTALTREEANDLAKECARE.COM)



## Univar Environmental Sciences

Jason Conrad  
225 Willow Wind Way  
Brunswick GA 31525  
(912) 704-1407  
JASON.CONRAD@univarusa.com  
[WWW.UNIVAR.COM/US](http://WWW.UNIVAR.COM/US)



## Valent Biosciences

Candace Royals  
3225 S MacDill Ave STE 129-190  
Tampa FL 33629  
(813) 505-8852  
CROYA@valent.com  
CANDACE.ROYALS@valent.com  
[WWW.VALENTBIOSCIENCES.COM](http://WWW.VALENTBIOSCIENCES.COM)



## Vector Disease Control International, LLC

Mychal Manolatos, V.P. of Sales  
1320 Brookwood Dr STE H  
Little Rock, AR SC 72202  
(800) 413-4445 office  
(312) 434-5107 cell  
mmanolatos@vdcil.net  
info@vdcil.net  
[WWW.VDCI.NET](http://WWW.VDCI.NET)



## Williamsburg Air Service, Inc

Guy McClary  
77 Birchwood Dr  
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(843) 382-8289 office  
(843) 687-3629 cell  
WILLIAMSBURGAIRSERVICE@yahoo.com  
SPRAYING@ftc-i.net  
[WWW.WILLIAMSBURGAIRSERVICE.COM](http://WWW.WILLIAMSBURGAIRSERVICE.COM)



## SCMCA Regions

*In which region is your county?*

### Upper Region: Shannon Williams

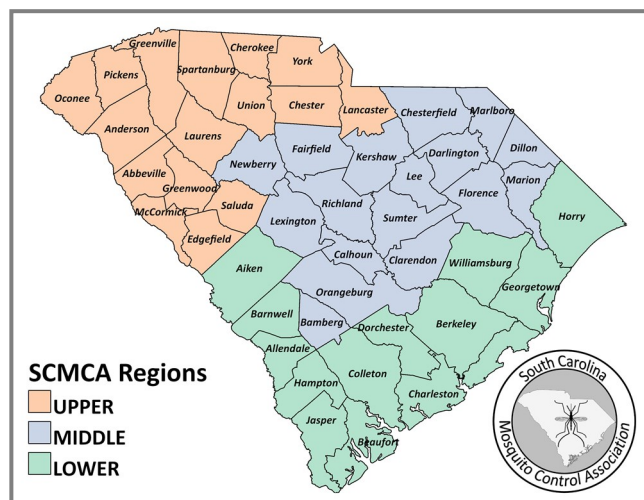
Phone: (864) 942-8560  
SHANNON.WILLIAMS@greenwoodsc.gov

### Middle Region: Caleb McBride

Phone: (803) 576-2427  
MCBRIDEC2@rcgov.us

### Lower Region: Raymond Clark

Phone: (843) 761-8000  
RAYMOND.CLARK@santeecooper.com





# Regional Representative Biographies

## Upper Region - Shannon Williams



### ***Greenwood Count Lake Management, Greenwood, SC***

I was born and raised in Ninety Six, SC, and I still live there. I've been married for 17 years, and I have two daughters, ages 10 and 6. We are members of Ninety Six First Baptist Church and are active in our community.

I've been employed with Greenwood County for a little over 2 years, and I was recently promoted to Supervisor for the Lake Management Department in March, 2015. Five people work in our department, and three of us are licensed to control mosquitoes. We only treat with larvicides. The Saluda River, Reedy River, and Rabon Creek feed the waters of Lake Greenwood, which is approximately 11,400 acres with 212 miles of shoreline. The lake is contiguous

with Greenwood, Laurens, and Newberry counties, although Greenwood County actually owns the entire lake bed. Mosquito treatment is just a small part of what I do; I also treat and control aquatic plants, maintain areas for recreation and fishing access, and numerous other smaller jobs.

## Middle Region - Caleb McBride



### ***Richland County Vector Control, Columbia, SC***

I was born in Lexington, SC and have lived most of my life between the midlands and Miami. I have a BS in Pre-Med, Criminology and Criminal Justice from USC. During my time away from work I enjoy spending my time with my now 15mo old daughter.

I currently work for Richland County Vector Control as an Environmental Field Coordinator. Before vector control I worked as a teacher and a child fatalities investigator with the state. My professional interest lies with epidemiology and environmental health research. I have enjoyed serving my county, state and county and look forward to serving on the SCMCA board representing the middle region.

## Lower Region - Raymond Clark



### ***Santee Cooper Vector Management, Moncks Corner, SC***

I am a native of Manning, South Carolina in Clarendon County. I am married to Nancy B. Clark and we have 4 children and we also have 10 grandchildren. I attended Benedict College in Columbia, S.C. I am employed with Santee Cooper of Monck's Corner in the department of Environmental Services. I have over 15 years of experience in the area of Vector/Mosquito Control. For the past 16 years I have served as a member of Clarendon County Health System Board of Trustees. Presently, I am a member of McLeod Health Hospital System. I am an active member of the New Bethel Missionary Baptist Church, serving as a youth Sunday School Teacher, chairman of the Men's Brotherhood and member of the Men's Choir. I am also very passionate about the work done with the Mentoring Program for young boys.

# 2016 SCMCA Annual Meeting

November 2-4, 2016



44<sup>th</sup> Annual Meeting of the South Carolina Mosquito Control Association took place November 2-4, 2016 at Hickory Knob State Park in McCormick, SC.

## Presenters



**Dr. Chris Evans**

*Zika response in South Carolina;*

*SC Arbovirus Update*



**Dr. Bruce Harrison**

*Mosquito Ecology*



**Dr. Janet McAllister**

*Zika - The Threats of Resistance*



**Dr. Marcia Herman-Giddens**

*What's New With Ticks: It Just Keeps Getting Worse*



**Leslie Godfrey**

*Pesticide Container Recycling;*

*Transportation, Storage and Safety*



**Joe Conlon**

*Zika Virus Vectors: Peridomestic Mosquito Biology and Behavior*



**Zane McAllister**

*How Larvicides Work*



**Chris Lesser**

*AMCA Update;*

*Zika Response in Florida*



## 2016 SCMCA Annual Meeting Cont.



**Travis Shealy**  
*MAMCA Update*



**Myra Reece**  
*Mosquito Control - The Meeting Place of Health and Environment*



**Dr. Jennifer Tsuruda**  
*Pollinator Update*



**Dr. Tim Drake**  
*Clemson Pesticide Regulatory Update*

## Awards



**Dr. Bruce Harrison**  
*LA Williams, Jr Award*

*For Outstanding Service and Contributions to Mosquito Control*



**Joe Andrews**  
*Silver Dipper Award*

*In recognition for his support to SCMCA and mosquito control in SC.*



**Robert Cartner**  
*2016 Technician of the Year Award*

*In recognition for his excellent attitude, enthusiasm, and pride of work.*

## Banquet



Legends of mosquito knowledge posing for a picture at the Annual Banquet. Awards above were given out during the banquet.

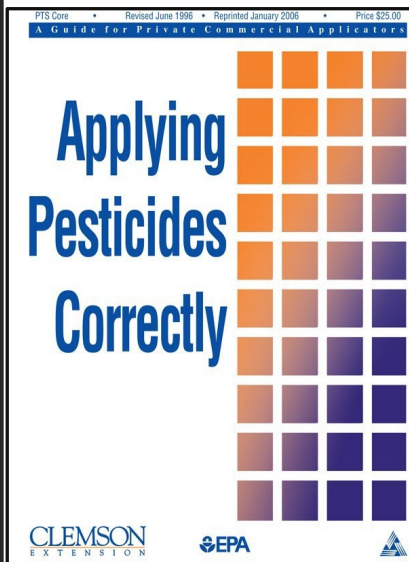
**Picture to left:**  
*(Left to right: Dr. Bruce Harrison, L.A. Williams, Jr., Joe Conlon)*



## Obtaining a Non-Commercial License for Mosquito Control

**Chris Evans, MS, PhD**

In order to obtain a Category 8 Public Health Pest Control License, you must obtain training materials prior to taking the exam. No classroom instruction is provided.



The two manuals needed are: (1) Core Manual – Applying Pesticides Correctly (PTS CORE), \$25; and (2) Category 8 – Public Health Pest Control (PTS8-SR18), \$15. Order the manuals online at <https://clermson.edu/dpr>, click “Exam Information” on the right, then under “Exam Information for SC Applicator’s License” click, “Order Exam Study Materials Online.” These manuals can also be ordered by phone from the Clemson University Bulletin Room:



(864) 656-3261 or (888) 772-2665. The exam fee for the Core + Category 8 is \$100. Each additional category is \$50. Before taking the exam, you must pre-register with the Clemson University Department of Pesticide Regulation (864-646-2150). Specifically, you should contact Holly Lizotte (Phone: 864-646-2164; E-mail: [hlizott@clemson.edu](mailto:hlizott@clemson.edu)) to pre-register. You must provide your name, address, phone number, social security number, and the name of the exam (Category 8). You will be given an

Identification Number. The exam location, date, and time will be set up during the pre-registration process. Directions to the testing center will be provided.

The exam is taken on a computer, and it is offered at testing centers around the state. The exam will cover the core principles of pesticide labels, environmental factors, pest and pesticide knowledge, pesticide laws, pesticide equipment and application techniques, and safe pesticide use, as well as knowledge specific to Public Health Pest Control. The results are known immediately upon completion of the exam.



### To County Vector Control Departments in the South Carolina Midlands:

Mid-State Beekeepers Association would like to make you aware of an asset at your disposal. Our organization has grown a great deal over the past several years and we have developed a large email database of area beekeepers. While not all inclusive, we have the ability to quickly send an email alert to our 285 dues paying members and to over 550 local individuals that subscribe to our monthly newsletter in Lexington, Richland, Calhoun and surrounding counties. Of course we encourage all of our active members to register their hives with their local Vector Control departments as a first line of contact should contact be needed.

However if, for any reason, you have a need to send an alert out to local beekeepers we would welcome facilitating that action for you.

Thank You,  
[scmidstatebees@scmidstatebeekeeper.org](mailto:scmidstatebees@scmidstatebeekeeper.org)



# A History of Malaria in South Carolina

**M**alaria was arguably the most significant disease in the history of South Carolina from the colonial period until the early twentieth century. It attracted less public discussion than yellow fever and smallpox, but its impact in terms of morbidity and mortality was much greater. Whereas yellow fever



and smallpox tended to erupt in spectacular but short-lived epidemics, malaria quietly and steadily eroded the lives and energy of a large part of the population. The most common symptoms of malaria are fever, chills and aches. In classic cases spikes in the fever come at regular intervals. Depending on the severity and type of case, malaria may produce vomiting, severe headaches, jaundice, hemorrhaging, blood clots, an enlarged spleen, and renal failure. Before the late 19th century, malaria was referred to by various names, including ague and fever, intermittent fever, and remittent fever. From the late colonial period, many South Carolinians called it “country fever” to distinguish it from yellow fever, which was largely confined to Charleston and other ports.

Malaria is a parasitic infection caused by protozoa known as *plasmodia* and transmitted by anopheline mosquitoes. Two types of malaria dominated in South Carolina. Both are highly debilitating diseases that produce lethargy and vulnerability to other infections. *Plasmodium vivax*, which probably came with European settlers in the 1670s, is the less virulent of the two forms. The introduction of the more deadly *Plasmodium falciparum* came with the importation of large numbers of African slaves in the 1680s and after. Many West Africans were immune to *vivax*, and some had acquired or inherited resistance to *falciparum*. The observations of planters and physicians of black resistance to malaria helped give rise to the proslavery argument that blacks were peculiarly adapted to labor in the southern climate. Nevertheless, many blacks suffered severely from *falciparum*, as they still do in parts of Africa.

By the early 18th century, malaria was endemic in the Lowcountry. It continued to plague the region throughout the 18th and 19th centuries, and was a major contributor to the region’s high mortality rates and reputation for unhealthiness. It was particularly dangerous to infants, young children, and pregnant women. The severity of malaria was the result not only of the Lowcountry’s semitropical climate and marshy topography but also of its plantation economy, particularly the cultivation of rice and indigo, which provided ideal breeding conditions for the anophelines. From the late colonial period, the threat of malaria transformed many of the planting families of the Lowcountry into seasonal migrants. They fled the plantations during the summer and early autumn for locations perceived to be less dangerous: the North, Charleston, the pinelands, the upcountry, and the seashore.

During the 19th century, malaria became a major health problem in much of the state, especially in newly cleared and undrained lands and along river valleys. It reached epidemic status on several occasions during the Civil War and after. In the early 20th century coastal South Carolina was one of the most persistent hyperendemic pockets of the disease in the country. In the 1930s, parasite rates as high as 50 percent were not uncommon among schoolchildren in rural areas, with the highest rates in the coastal counties. In the early 1940s the construction of Santee Cooper hydroelectric dams produced one of the last epidemics of malaria. In the rush to complete the project in the face of war, the upper reservoir (Lake Marion) was not completely cleared of trees. They impeded flow and provided excellent breeding grounds for anophelines. In 1944, 39 percent of people living on the north shore of the lake tested positive for malaria. By the early 1950s, however, the disease had virtually disappeared from the state for reasons that are still not entirely understood, but improvements in mosquito control (especially the development of the pesticide DDT), drainage, housing, and nutrition probably all played a part.

– Excerpted from the entry by Peter McCandless in *The South Carolina Encyclopedia*



## Species Spotlight: *Culex coronator*



**Description** *Culex coronator* adults are medium sized and brown and white. This mosquito is one of just 2 species of *Culex* in the southeast that have pale bands on the hind legs, the other being *Culex tarsalis*. The 2 species are distinguished by the presence or absence of a white band on the proboscis. *Culex tarsalis* adults have a distinct white ring on the proboscis, while *Culex coronator* adults do not, although they may have a pale patch on the underside of the proboscis. Females of *Culex coronator* feed primarily upon mammals, such as deer and domestic animals, but also occasionally feed on birds.

**Larvae** Larvae of *Culex coronator* are small to medium sized. Setae of the head are multibranched. The siphon is quite long and thin and bears several small spines just before its apex. Four pairs of branched setae arise along the length of the siphon. Larvae are found in a variety of habitats, including rain-filled depressions and water-filled man-made containers, especially those in direct sunlight.



**Medical Importance** Although *Culex coronator* is not considered to be a species of major health importance, several pathogens have been isolated from field-collected females. Venezuelan equine encephalitis virus has been isolated from Central American females, and St. Louis encephalitis virus has been detected in females from the Caribbean.

**Distribution** *Culex coronator* is a recent arrival to the southeastern United States. Prior to the year 2000, this mosquito was found only in Texas, New Mexico, and Arizona (also in Central and South America). Since 2001, *Culex coronator* has been found in Louisiana, Mississippi, Alabama, Florida, Georgia, North Carolina, and South Carolina.



Photo: Burkett-Cadena, N. D. (2013). *Mosquitoes of the southeastern United States*. Tuscaloosa, Alabama: University of Alabama Press.

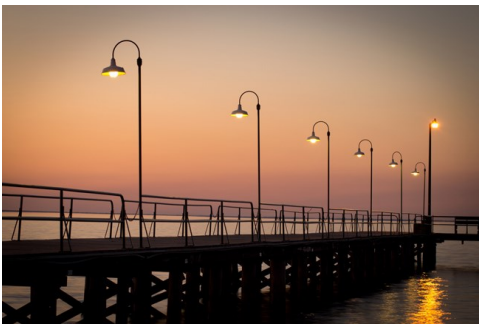


Distribution of *Culex coronator* in the U.S.

Burkett-Cadena ND. 2013. *Mosquitoes of the southeastern United States*. Tuscaloosa, Alabama: University of Alabama Press.

# 2017 Calendar of Events

Date	Meeting/Event	Venue	Location
Jan 31-Feb 2, 2017	42nd Annual Conference of the Mid-Atlantic Mosquito Control Association	Marriott Newport News at City Center	Newport News, VA
Feb 13-17, 2017	83 <sup>rd</sup> Annual Conference of the American Mosquito Control Association	Town and Country Resort and Convention Center	San Diego, CA
Feb 27, 2017	Webinar: <i>"The Shifting Landscape for Accelerating 'Speed to Market' of Globally Recommended Vector Control Products"</i>	<a href="http://www.mosquito.org/webinars">http://www.mosquito.org/webinars</a>	
March 01, 2017	Clarke 2017 Workshop   North Charleston, SC	<a href="https://www.clarke.com/workshops?state=SC">https://www.clarke.com/workshops?state=SC</a>	North Charleston, SC
March 02, 2017	Clarke 2017 Workshop   Columbia, SC	<a href="https://www.clarke.com/workshops?state=SC">https://www.clarke.com/workshops?state=SC</a>	Columbia, SC
June 1, 2017	South Carolina Mosquito Control Association Annual Summer Workshop	Santee Cooper Somerset Recreation Building	Pinopolis, SC
June 25-July 1, 2017	National Mosquito Control Awareness Week	<a href="http://www.mosquito.org/meetingsevents">http://www.mosquito.org/meetingsevents</a>	
Nov 1-3, 2017	South Carolina Mosquito Control Association 45 <sup>th</sup> Annual Meeting	Ocean Drive Beach and Golf Resort	North Myrtle Beach, SC



## Mark Your Calendars



**June 1, 2017**

**SCMCA 2017 Summer Workshop**

**Pinopolis, SC**

**Check SCMCA website for future updates and an agenda**

**Hope to see you all there!!**





# Web Resources

Resource	Website
American Mosquito Control Association	<a href="http://www.mosquito.org/">http://www.mosquito.org/</a>
CDC Division of Vector-Borne Diseases	<a href="http://www.cdc.gov/nceid/dvbd">http://www.cdc.gov/nceid/dvbd</a>
Clemson University CEU Search (See <i>your</i> information)	<a href="http://regfocus.clemson.edu/dpr/ncommercial.htm">http://regfocus.clemson.edu/dpr/ncommercial.htm</a>
Clemson University Cooperative Extension Beekeeping	<a href="http://www.clemson.edu/extension/beekeepers/">http://www.clemson.edu/extension/beekeepers/</a>
Clemson University Department of Pesticide Regulation	<a href="http://regfocus.clemson.edu/dpr/">http://regfocus.clemson.edu/dpr/</a>
EPA Insect Repellents: Use and Effectiveness	<a href="http://cfpub.epa.gov/oppref/insect/">http://cfpub.epa.gov/oppref/insect/</a>
Florida Medical Entomology Laboratory (+ID Guide)	<a href="http://fmel.ifas.ufl.edu/">http://fmel.ifas.ufl.edu/</a>
Florida Mosquito Control Association	<a href="http://www.floridamosquito.org/Home/">http://www.floridamosquito.org/Home/</a>
Mid-Atlantic Mosquito Control Association	<a href="http://www.mamca.org/">http://www.mamca.org/</a>
NC Mosquito and Vector Control Association	<a href="http://www.ncmvca.org/">http://www.ncmvca.org/</a>
SC DHEC Mosquitoes in South Carolina	<a href="http://www.scdhec.gov/mosquitoes">http://www.scdhec.gov/mosquitoes</a>
SC DHEC Reporting Dead Birds in South Carolina	<a href="http://www.scdhec.gov/birdtesting">http://www.scdhec.gov/birdtesting</a>
Society for Vector Ecology	<a href="http://www.sove.org/">http://www.sove.org/</a>
South Carolina Aquatic Plant Management Society	<a href="http://www.scapms.org/">http://www.scapms.org/</a>
SC Bee Keeper Association (Local assoc. links)	<a href="http://www.scstatebeekeepers.org/">http://www.scstatebeekeepers.org/</a>
SC Mosquito Control Association	<a href="http://www.scmca.net/">http://www.scmca.net/</a>
USGS (Arbovirus Disease Maps)	<a href="http://diseasemaps.usgs.gov/mapviewer/">http://diseasemaps.usgs.gov/mapviewer/</a>

## Zika Virus Resources

CDC | Zika Virus Information | <http://www.cdc.gov/zika/>

CDC | Vector Surveillance and Control | <http://www.cdc.gov/zika/vector/index.html>

CDC | Zika Virus Action Plan Template | <http://www.cdc.gov/zika/public-health-partners/risk-based-prep.html>

CDC | Zika Virus Fact Sheets and Posters | <http://www.cdc.gov/zika/fs-posters/index.html>

CDC | Zika Virus Infographics | <http://www.cdc.gov/zika/comm-resources/infographics.html>

SC DHEC | Zika Virus Information | <http://www.scdhec.gov/zika>

SC DHEC | Fact Sheet: Controlling Mosquitoes Around the Home | <http://www.scdhec.gov/mosquitoes> > "Protect Yourself / Your Home"

World Health Organization | Zika Virus Information | <http://www.who.int/topics/zika/en/>

"Recognizing its importance, *Aedes aegypti* should be studied as a long-term national, regional, and world problem rather than as a temporary local threat to the communities suffering at any given moment from yellow fever, dengue or other *aegypti*-borne disease. No one can foresee the extent of the future threat of *Aedes aegypti* to mankind as a vector of known virus diseases, and none can foretell what other virus diseases may yet affect regions where *Ae. aegypti* is permitted to remain." — Fred Lowe Soper, Building the Health Bridge: Selections from the Works of Fred L. Soper



**SOUTH CAROLINA MOSQUITO CONTROL ASSOCIATION, INC.**

**Attn: Olin Towery, Secretary Treasurer**

**Richland County Vector Control**

**400 Powell Road**

**Columbia, SC 29203**

**OFFICE PHONE: (803) 576-2428**

**FAX: (803) 576-2498**

**MEMBERSHIP APPLICATION**

**NAME:**

\_\_\_\_\_

**ORGANIZATION:**

\_\_\_\_\_

**ADDRESS:**

\_\_\_\_\_

\_\_\_\_\_

**WORK PHONE:**

\_\_\_\_\_

**FAX:**

\_\_\_\_\_

**E-MAIL:**

\_\_\_\_\_

**TYPE OF MEMBERSHIP/ DUES (Renewal due at Annual Meeting)**

<b>Active Member</b>	<b>\$ 10.00</b>
<b>*Sustaining Member</b>	<b>\$150.00</b>

**\*Includes one active membership**

Please make checks payable to SCMCA and return to Olin Towery at the address above.

**For Office Use Only:**

Region: Upper / Middle / Lower

Amount Paid \$ \_\_\_\_\_ Date Paid: \_\_\_\_\_ ☐ Check # \_\_\_\_\_ ☐ Cash



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## SCMCA – Promoting Mosquito Control in South Carolina

### *The Landing Rate Count*

**SC Mosquito Control Association**  
c/o Richland County Vector Control  
400 Powell Rd  
Columbia SC 29204

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