

The Landing Rate Count

South Carolina
Mosquito Control
Association

Volume 40 Issue 2

Editor: John C. Grant

The President's Message

by Joe Strickhouser

Mosquito entomologists have been expressing concern for a few years now that we would soon have a new arbovirus in the US. The early part of this summer has seen very high numbers of Chikungunya occurring in the Caribbean. Many travelers returning from those areas have been diagnosed with the disease after their return to the United States. Local disease transmission, however, had not occurred until two weeks ago. The first reports came in of a person who had not travelled outside the US becoming infected.

The primary vector of Chikungunya is *Aedes aegypti*. *Aedes albopictus*, it is thought, will be the most important vector for most of us. Only time will tell how this all plays out, but most programs that I visit have been struggling to find ways of enhancing their "tiger" mosquito control strategies. Many programs have had a policy of not spraying for albo's as they are almost always raised by the very folks who complain. If they do turn out to play a major role in transmission of Chikungunya virus, there may need to be a different approach. One program I know of in NC has found that spraying earlier, before sunset, can have good effect on *Albopictus* populations. Others of you may have your own strategies for the best approach for controlling tigers. Lots of questions, few conclusive answers. We all need to be vigilant as we track this new threat, and stay abreast of what is working for our neighbors across the state (see page 12 for information on Chikungunya from the CDC).

I hope to see all of you at SCMCA's annual meeting this fall. Mark your calendars and make plans to be at Hickory Knob State Park, November 5-7.



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Attention All Supervisors

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Mosquito ID Course to be held at:

SCMCA

2014 Annual Meeting

Nov 6-Nov 7

Hickory Knob State Park



McCormick, S.C.

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South Carolina Mosquito Control Association

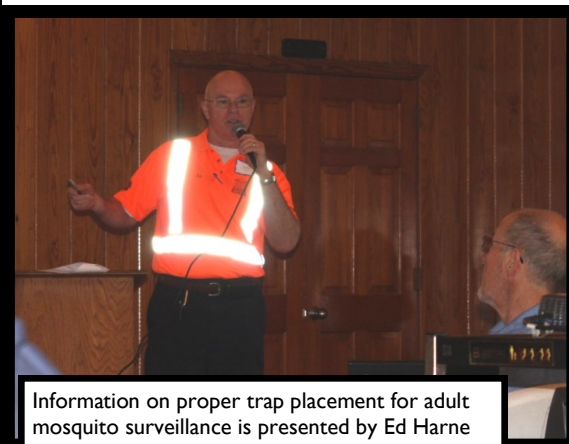
2014 SCMCA Summer Workshop



The 2014 SCMCA Summer Workshop took place at the Santee Cooper Somerset Employee Recreation building in Pinopolis on June 12. Over 100 participants enjoyed presentations on topics that included trap placement, home barrier treatments, interactions with honey bee owners, Clemson regulatory update and new triple rinse requirements. Breakout sessions included demonstrations on truck mounted ULV maintenance, pesticide spill cleanup and larvicide strategies. An outstanding video on Integrated Mosquito Management, narrated by AMCA's Joe Conlon, was also shown. The afternoon was completed with a complementary BBQ lunch provided by your SCMCA!



Ben Powell shares information on South Carolina bee hive owners and associations.



Information on proper trap placement for adult mosquito surveillance is presented by Ed Harne from Charleston County Mosquito Control.



SCMCA Regional Rep. Caleb Parker discusses Barrier Treatments.



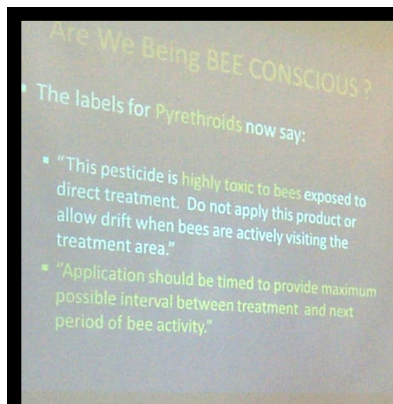
SCMCA At-large Rep, Jason Conrad demonstrates ULV spray machine maintenance.



2014 SCMCA Summer Workshop Images



Tammy Brewer provides information on spill clean-up during the break out sessions.



Clemson Department of Pesticide Regulation Head Joe Krausz discusses relevant regulatory issues.

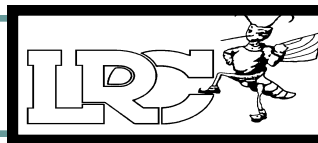


Trey English makes a point!



SCMCA President Joe Strickhouser, welcomes workshop attendees.





Program Updates:

Upper Region

Representative Julie Davis

DHEC

Upstate regional DHEC offices report that it has been a fairly slow season, thus far. Abbeville, Anderson, and Greenwood DHEC offices have not received any bird or mosquito submissions. There have been a few complaints and calls concerning mosquitos. Upstate DHEC has not received any vector borne disease reports for the 11 upstate counties that they cover.

Lake Greenwood

As the summer season is in full swing, so is our mosquito control duties. At Lake Greenwood, our program is similar to other lake's mosquito control programs. We apply larvicides to mosquito breeding habitats around the 11,400 acre lake. With 212 miles of shoreline, it takes about 10 days to complete an entire cycle.

There is a total staff of 5 for the Lake Management department, and therefore our program is a small scale program. There are 2 primary employees for the mosquito control program, which are also responsible for the additional duties of hazardous log removal, cultural resource inspections, noxious aquatic weed surveys, and county owned land maintenance require time away from mosquito control duties. In the summer these 2 employees do a great job at accomplishing all duties required of them.

Mid Region

Representative Caleb Parker

Richland County Vector Control. Congratulations to Katherine Sandel for receiving her pesticide applicator license in May. We participated with RC's Public Works Week and received 2nd place for our education booth and also 2nd place in the volleyball tournament. We are pleased to be fully staffed for the first time in many years. We welcomed Robert Cartner, Stephen Stafford & Jabbari Jones in time to attend the SCMCA's Summer Workshop. Mallory Epting and Matthew Rice joined our seasonal staff shortly afterwards. Fortunately this summer is drier than last year - but we could use some rain to knock down the dust and flush out some ditches. For Mosquito Control Awareness Week Tammy worked with Justin Martin from Richland County's Public Information Office to put together a video - Tammy Brewer gives tips on how to reduce mosquito breeding on your property:

https://www.youtube.com/watch?v=qc_hgAoLYg&feature=youtu.be . We also were presented with a proclamation by County Council recognizing the work we do for Mosquito Control Awareness Week. Staff attended training for defensive driving and customer service. Tammy has been working towards full-time staff becoming commissioned code enforcement officers, which would provide the authority to make service requests more manageable. All full time staff are participating with the "Healthy for a Bit" challenge.

Lower Region

Representative Eric Deluca

Charleston County

Most of the mosquito activity in Charleston County this year has been generated by thunderstorm-related precipitation, augmented by a few higher than normal tide events and also a few weather fronts bringing rain. Hurricane Arthur's outer rain bands brought very light rain amounts to the county, and did not contribute significantly to the production of aquatic stage mosquitoes. Consequently, the effects of sporadic, scattered rain events, hot weather, and mosquito control efforts has held the overall adult mosquito population to relatively low levels. For example, only 272,000 acres of ULV spray truck missions have been conducted through the end of June, as compared with over 346,000 acres at this time in 2013. Citizen's Awareness Program door-to-door teams visited a total of 1,680 residences in January, February, and June.

Santee Cooper Vector Management

Very low mosquito activity has been observed throughout all Santee Cooper control zones from early spring and into summer. Acreage totals treated for adult mosquito control, through July, is among the lowest in the past 30 years. Despite relatively dry weather conditions, Lake Marion and Lake Moultrie levels have remained consistent and the unit is monitoring permanent water body mosquito populations closely. The unit has begun receiving requests to control container breeding mosquitoes in recent weeks. Technicians Kathy Tallman and Tim Hutto have spent increasing time and effort collecting mosquitoes to submit to DHEC for arbovirus testing. Santee Cooper Summer Interns have assisted the unit by testing additional mosquitoes for the presence of arbovirus using the RAMP and Vectest kits. To date, no mosquitoes collected by the unit have tested positive for West Nile Virus. Mr. Raymond Clark and Mr. Matt Mays were hired to work out of the Manning office in May.

Raymond worked previous with the unit.



Which region is your county a part of.....

see page 15

South Carolina Mosquito Control Association



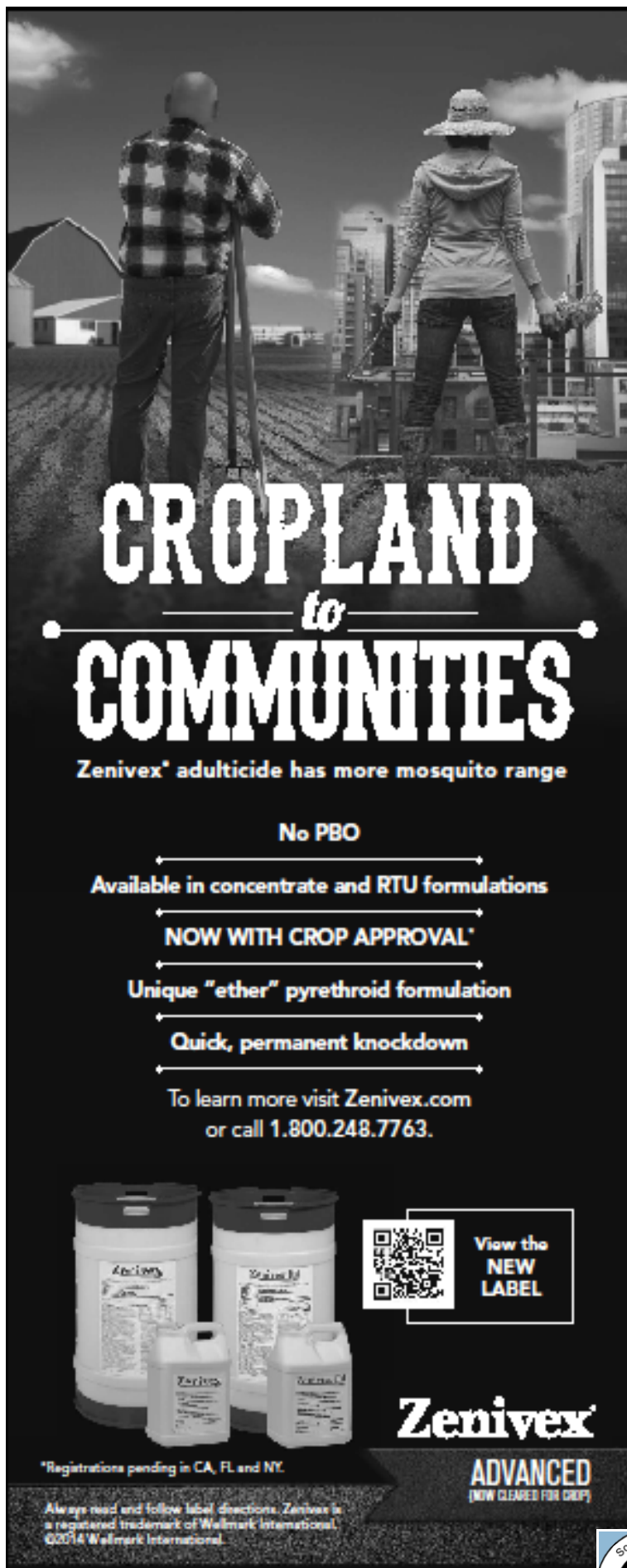
Photo provided by Cutwa & O'Meara, Univ. of Florida, Florida Medical Entomology Laboratory

Species Spotlight! ***Coquillettidia perturbans***

Coquillettidia perturbans adults are medium sized with banded legs and proboscis. They feed on the blood of mammals and birds and can be aggressive biters of humans. Adults are reported to be most abundant from June through August. *Coquillettidia* are an important bridge vector of eastern equine encephalitis (EEE) in the southeastern United States, transmitting the disease from birds to humans and horses. Larvae are associated with emergent vegetation, often cattails, in permanent and semi permanent water bodies. The siphon of the larva has been adapted for piercing the tissue of aquatic plants through which the larva respire.

(Source: Mosquitoes of the Southeastern United States, Burkett-Cadena, The University of Alabama Press. 2013).





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ATTENTION ALL SUPERVISORS!

2014 SCMCA Technician of the Year Nominations
are now being accepted by your
SCMCA Board of Directors



Shermaine White accepts the inaugural SCMCA Technician of the Year Award in 2005. Who will be this year's winner?

The Technician of the Year will be recognized at the
2014 SCMCA Annual Meeting.

The winner will also be presented with a really nice jacket.

**DO NOT DELAY! SUBMIT YOUR APPLICATION
NOW!**

DEADLINE: September 26

Find the SCMCA Tech of the Year Nominations form on page 8 in
this edition of the *Landing Rate Count*!



South Carolina Mosquito Control Association



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PROVEN



SCMCA BOD Announces Adult Mosquito ID Course in Conjunction with Annual Meeting

The South Carolina Mosquito Control Association will hold its annual meeting at Hickory Knob State Park, in McCormick, S.C., on November 6-7. The SCMCA Board of Director's has been very busy planning this year's annual meeting. In addition to various presentations on topics relevant to mosquito control, an adult mosquito identification course will be offered on the morning of the first day of the meeting. Details on the ID course are being finalized and more information regarding ID course registration and registration for the annual meeting is forthcoming. Please mark your calendars now and make plans to join us at one of South Carolina's finest state parks. Rooms and cabins will be available at very affordable rates and recertification credits (CEU) will be available for licensed applicators attending the meeting. Watch



2014 SCMCA TECHNICIAN OF THE YEAR AWARD

DEADLINE FOR SUBMISSION

September 26, 2014

Nominee: _____ Date: _____

PLEASE ADD A BRIEF BIO ON THE BACK OF THIS FORM

Jacket Size: _____

County/State Program: _____

Address: _____

City: _____ State: _____ Zip: _____

Job Title: _____

Supervisor: _____ Phone/Email: _____

WRITE A BRIEF SUMMARY SUPPORTING YOUR NOMINEE FOR THIS AWARD.

(In your nomination, be specific – who, what, when and where. Attach a letter or other supporting material if needed.)

Guidelines for Selection:

1. Consistent and excellent performance with efforts above and beyond expected duties
2. General knowledge of mosquito biology
3. Service to community
4. Positive attitude: enthusiasm, pride in work
5. Team Player
6. Must be a member of the association in good standing

Please complete this form and return to:

Tammy Brewer

Richland County Vector Control

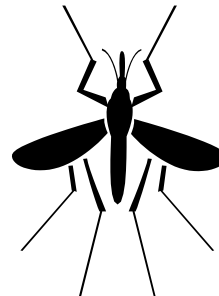
400 Powell Road

Columbia, SC 29203

Phone: (803) 576-2425

Fax: (803) 576-2498

Email: brewerta@rcgov.us



South Carolina Mosquito Control Association

2014 Meeting and Event Information

- 9/28/14-10/2/14 Society of Vector Ecology 45th Annual Conference**
 Menger Hotel
 San Antonio, Tx.
<http://www.sove.org/>
- 10/8/14-10/10/14 South Carolina Aquatic Plant Management Society Annual Meeting**
 Springmaid Beach Resort
 Myrtle Beach, S.C.
<http://scapms.org/meetings.html>
- 11/6/14-11/7/14 South Carolina Mosquito Control Association 42nd Annual Meeting**
 Hickory Knob State Park
 McCormick, S. C.
<http://www.scmca.net/meeting.html>
- 11/12/14-11/14/15 North Carolina Mosquito & Vector Control Association**
 City Hotel and Bistro
 Greenville, N.C.
<http://www.ncmvca.org/conference.html>
- 1/13/15-1/15/15 40th Annual Conference of the Mid-Atlantic Mosquito Control Assoc.**
 Hilton Savannah Desoto
 Savannah, Georgia
<http://www.mamca.org/conference.htm>
- 3/29/15-4/2/15 American Mosquito Control Association 81st Annual Meeting**
 Hilton New Orleans Riverside
 New Orleans, LA
<http://www.mosquito.org/annual-meeting>



Web Resources

Site Author

The American Mosquito Control Association
 The Mid-Atlantic Mosquito Control Association
 The Florida Mosquito Control Association
 The North Carolina Mosquito and Vector Control Assoc.
 Florida Medical Entomology Laboratory (**GREAT ID GUIDE**)
 South Carolina Bee Keeper Association (**local assoc. links**)
 Society for Vector Ecology
 South Carolina Aquatic Plant Management Society
 Clemson Department of Pesticide Regulation
 Clemson CEU Search (**See your CEU information**)
 DHEC Mosquitoes in South Carolina home
 CDC West Nile Virus Information
 WebMD bug bite slide show (**excellent images**)
 USGS (**Vector Maps– Updated regularly**)

Web Address

<http://www.mosquito.org/>
<http://www.mamca.org/>
<http://www.floridamosquito.org/Home/>
<http://www.ncmvca.org/>
<http://fmel.ifas.ufl.edu/>
<http://www.scstatebeekeepers.org/>
<http://www.sove.org/index.html>
<http://www.scapms.org/>
<http://regfocus.clemson.edu/dpr/>
<http://regfocus.clemson.edu/dpr/ncommercial.htm>
<http://www.scdhec.gov/environment/envhealth/pests/mosquitoes.htm>
<http://www.cdc.gov/westnile/index.html>
<http://www.webmd.com/allergies/ss/slideshow-bad-bugs>
<http://diseasemaps.usgs.gov/>

Please contact John Grant at jcgrant@santeecooper.com if you would like to share an informative, non-commercial, site with other association members. Please see our Sustaining Members ads for links to their commercial sites.





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Trey English

Mosquito Control Specialist
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Chikungunya Virus

from the CDC

Clinical Evaluation & Disease

Modes of Transmission

Chikungunya virus is primarily transmitted to humans through the bites of infected mosquitoes, predominantly *Aedes aegypti* and *Aedes albopictus*. Humans are the primary host of chikungunya virus during epidemic periods. Blood-borne transmission is possible; cases have been documented among laboratory personnel handling infected blood and a health care worker drawing blood from an infected patient. Rare in utero transmission has been documented mostly during the second trimester. Intrapartum transmission has also been documented when the mother was viremic around the time of delivery. Studies have not found chikungunya virus in breast milk.

The risk of a person transmitting the virus to a biting mosquito or through blood is highest when the patient is viremic during the first week of illness.

Clinical Signs & Symptoms

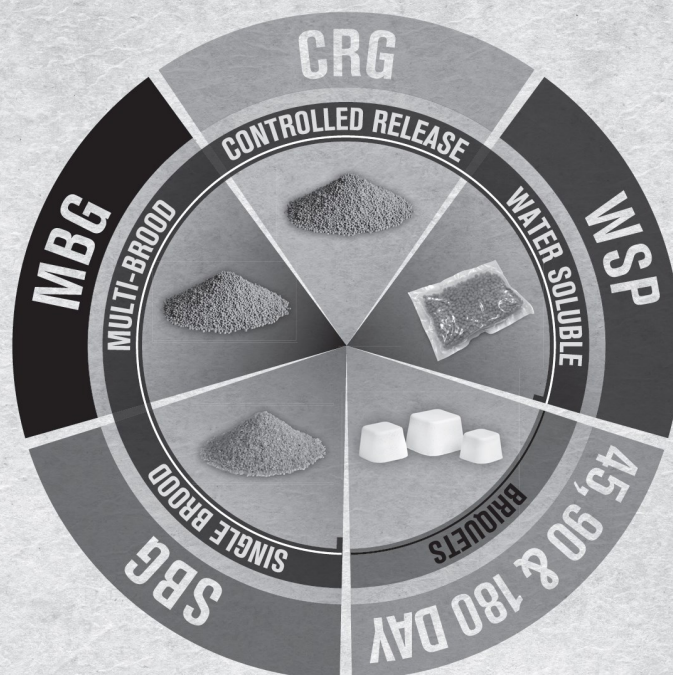
The majority of people infected with chikungunya virus become symptomatic. The incubation period is typically 3–7 days (range, 1–12 days). The disease is most often characterized by acute onset of fever (typically $>39^{\circ}\text{C}$ [102°F]) and polyarthralgia. Joint symptoms are usually bilateral and symmetric, and can be severe and debilitating. Other symptoms may include headache, myalgia, arthritis, conjunctivitis, nausea/vomiting, or maculopapular rash. Clinical laboratory findings can include lymphopenia, thrombocytopenia, elevated creatinine, and elevated hepatic transaminases.

Acute symptoms typically resolve within 7–10 days. Rare complications include uveitis, retinitis, myocarditis, hepatitis, nephritis, bullous skin lesions, hemorrhage, meningoencephalitis, myelitis, Guillain-Barré syndrome, and cranial nerve palsies. Persons at risk for severe disease include neonates exposed intrapartum, older adults (e.g., >65 years), and persons with underlying medical conditions (e.g., hypertension, diabetes, or cardiovascular disease). Some patients might have relapse of rheumatologic symptoms (e.g., polyarthralgia, polyarthritis, tenosynovitis) in the months following acute illness. Studies report variable proportions of patients with persistent joint pains for months to years. Mortality is rare and occurs mostly in older adults.

Please see

<http://www.cdc.gov/chikungunya/hc/clinicalevaluation.html>
for more information

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In Which Region is Your County?

From the SCMCA By-Laws: ***For the purpose of electing directors, the state shall be divided into three (3) regions known as Upper, Middle, and Lower regions consisting of the following counties:***

Upper:

Anderson	Cherokee	Lancaster	Greenwood
Oconee	Spartanburg	York	Laurens
Greenville	Union	Abbeville	McCormick
Pickens	Chester	Edgefield	Saluda

Middle:

Fairfield	Orangeburg	Darlington	Marion
Richland	Bamberg	Marlboro	Clarendon
Lexington	Calhoun	Dillon	Kershaw
Newberry	Chesterfield	Florence	Lee
Sumter			

Lower

Beaufort	Jasper	Barnwell	Dorchester
Colleton	Aiken	Berkeley	Georgetown
Hampton	Allendale	Charleston	Horry
Williamsburg			



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**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****MEMBERSHIP APPLICATION**

NAME: _____

ORGANIZATION: _____

ADDRESS: _____

WORK PHONE: _____

FAX: _____

E-MAIL: _____

**Newsletter delivery options: I prefer to have SCMCA newsletter ☐ mailed ☐ e-mailed.

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

Active Member	\$ 10.00
*Sustaining Member	\$150.00

***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

South Carolina Mosquito Control Association

Richland County Vector Control
400 Powell Road; Columbia, SC 29203

Phone: (803) 576-2428
Email: scmosquitocontrolassociation@gmail.com

Protecting the Residents and Visitors of
South Carolina

Volume 40 Issue 2

We are on the Web !
www.scmca.net

Stamp

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