The Landing Rate Count
www.scmca.net
Newsletter of the South Carolina Mosquito Control Association
Jan 2016 – Vol 42 • Issue 1
Editor: Chris Evans

The President's Message

Stacy Harris

Stacy Harris – 2016 SCMCA President

My name is Stacy Harris. I started with the City of Columbia in Vector Control with Planning and Development in 2007. Through hard work, a few promotions, and the changing of departments, I am now employed as a Housing Inspector with the city of Columbia Police Department.

Enough about me – let's get to the mosquitoes. I know everyone is glad the cold weather is here, which will help rid us of the pesky mosquitoes for now. We all know they will be back. Because of the flooding and extra warm weather around this time of the year, we dealt with a high volume of mosquito complaints. Now is the time to get ready for the upcoming summer months.

I would like to take this opportunity to thank last year's SCMCA president and board members. We appreciate all of the hard work from everyone, and we welcome the new vice president and board members. I look forward to working with you to make sure we have a successful year with the SCMCA.

Finally, I would like to ask everyone to plan to come to our upcoming workshop and annual meeting. The summer workshop will be held at the Santee Cooper Somerset Recreation Facility on June 2nd in Pinopolis, South Carolina. Our annual SCMCA annual meeting will be held at Hickory Knob State Resort Park in McCormick, South Carolina, on November 3rd-5th. Watch for details and information at www.scmca.net.

Thank you, and let's have a great year!

In This Issue

Save The Dates

SCMCA
Summer Workshop
Pinopolis, SC
June 2, 2016

SCMCA
44th Annual Meeting
Hickory Knob
State Resort Park
McCormick, SC
November 3-5, 2016

2016 SCMCA Sustaining Members

Thank you for your time and contributions!

ADAPCO,
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
WWW.AZELISAMERICAS.COM

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

AMVAC Environmental Products
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

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

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

Clarke
Joe Strickhouser
PO BOX 9364
Charlotte, NC 28299
(704) 756-5837
JSTRICKHOUSER@clarke.com
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

Electronic Data Solutions
Ryan Pierson
PO BOX 31
Jerome ID 83338
(208) 324-8006
elecdata@elecdata.com
WWW.ELECDATA.COM

Gil Manufacturing
Ted Gilreath
807 Oliver Ct
Montgomery AL 36117
(334) 284-8111
(800) 445-0180
GILMOSQUITO@charter.net
WWW.GILMANUFACTURINGINC.COM

MCES, LLC
Carlos Gonzalez
2499 Old Lake Mary Rd STE 102
Sanford FL 32771
(321) 363-4977
CARLOS@mymces.com
WWW.MYMCES.COM

2016 SCMCA Sustaining Members, continued

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

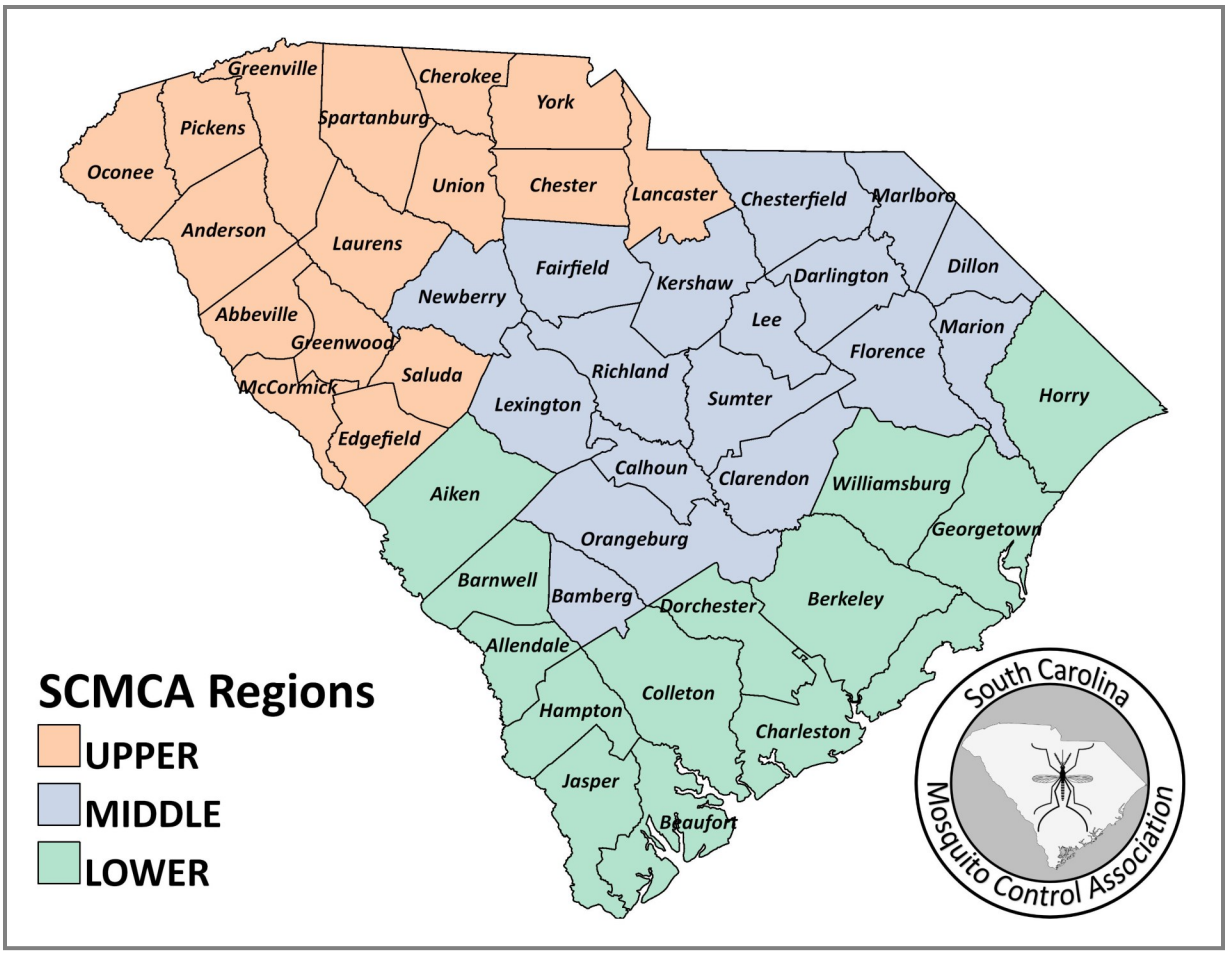
Univar Environmental Sciences
Jason Conrad
225 Willow Wind Way
Brunswick GA 31525
(912) 704-1407
JASON.CONRAD@univarusa.com
WWW.UNIVAR.COM/US

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

Williamsburg Air Service, Inc
Guy McClary
77 Birchwood Dr
Kingstree SC 29556
(843) 382-8289 office
(843) 687-3629 cell
WILLIAMSBURGAIRSERVICE@yahoo.com
SPRAYING@ftc-i.net
WWW.WILLIAMSBURGAIRSERVICE.COM

SCMCA Regions

In which region is your county?



Meet Your 2016 SCMCA Regional Directors

Upper Region – Shannon Williams

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 – Robert Cartner

I am a native of South Carolina, and I was born in Gilbert, SC, in Lexington County. I graduated from the University of South Carolina with a degree in Marine Science. I started my mosquito control experience in 2014 working as a Larvicider at Richland County Vector Control, where I also gained some experience identifying mosquitoes. In December 2014, after a season with Richland County, I went to work in the Medical Entomology laboratory at the South Carolina Department of Health and Environmental Control (SC DHEC) under Dr. Chris Evans.

During the warmer months of the year, the majority of my day is spent identifying and pooling mosquitoes for arbovirus testing while being hunched over a microscope and freeze table. I really enjoy identifying mosquitoes because it gives me to opportunity to see firsthand how mosquito species and populations change over the course of a year.

I'm looking forward to serving on the board this year and getting the opportunity to meet people from all over the state who share my interests. I hope that I can bring in some new faces from the middle region as well as bring back some old ones.

Lower Region – Ron Plunkett

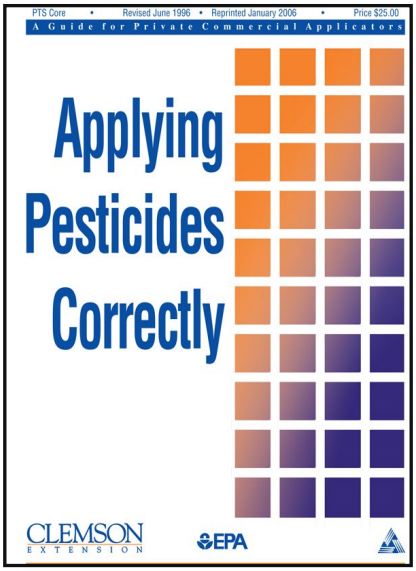
I am a native of South Carolina, and I live in North Charleston with my wife, Heather. We have been married for 19 years and have two beautiful children, Brian (age 14) and Caroline (age 9). In my free time, I enjoy fishing, throwing a cast net, and adding to my collection of beer pilsner glasses.

I began my tenure in vector control with Berkeley County Mosquito Abatement in the fall of 2006 after more than 8 years in commercial pest control. As a Field Inspector with a Category 8 Pesticide License, some of my duties include larviciding, adulticiding, maintenance of pupiciding equipment, collection of light trap specimens, and citizen education. This is my first time serving as a SCMCA Board representative, and I will represent the Lower Region.

Obtaining a Non-Commercial License for Mosquito Control

Chris Evans, MS, PhD

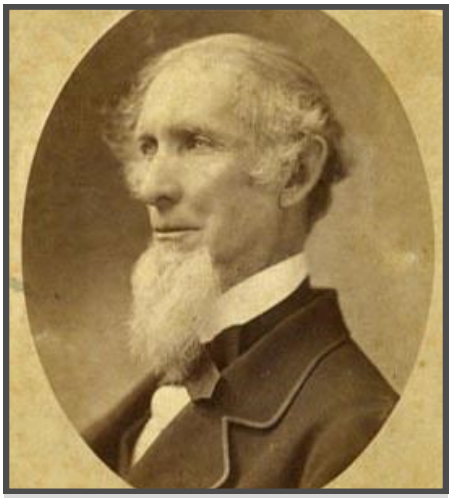
In order to obtain a Category 8 Public Health Pest Control License, you must obtain training materials prior to taking the exam. No classroom instruction is provided.



The two manuals needed are: (1) Core Manual – Applying Pesticides Correctly (PTS Core 2356), $25; and (2) Category 8 – Public Health Pest Control (PTS 8 2364), $15. Order the manuals online at https://shopping.clemson.edu (enter search terms "2356" and "2364") or can 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) 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.



Josiah Clark Nott, MD
1804 – 1873

Josiah Clark Nott, MD

Dr. Nott was a South Carolina native who settled in Mobile, Alabama in 1836. Yellow fever killed 5 of his 8 children. In 1848, he suggested that because the pattern of yellow fever mimics that of insects, then an insect vector must be involved.

He recognized that yellow fever receded when swamps were drained. His statements predated, by 33 years, the discovery by Carlos Finlay, Walter Reed, and William Gorgas that yellow fever is spread by mosquitoes.

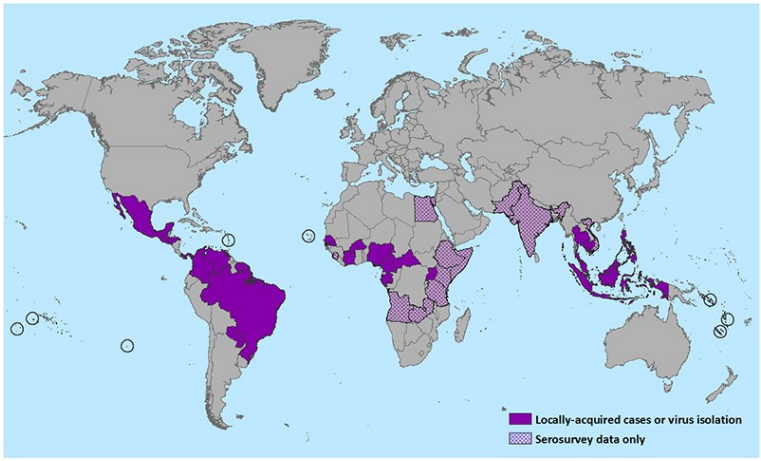
In a perfectly southern manner, he compared yellow fever to the cotton armyworm, which sometimes causes "just a few sporadic cases … in another year, a worm comes like a great epidemic, appearing at many points in rapid succession or simultaneously, and ravaging not only a single plantation, but laying waste the cotton region for several hundred miles."

Pesticide License Testing Centers	
Aiken Technical College	Horry-Georgetown Technical College
Colleton County Extension Office	Midlands Technical College – Beltline Campus
ECPI College of Technology in North Charleston	Piedmont Technical College
Florence-Darlington Technical College	Walterboro Extension Office
Greenville Technical College	Williamsburg Technical College

Bracing for Zika Virus

Mike Merchant, PhD, BCE — Texas A&M University

Will Zika be the next mosquito-borne disease to capture headlines in 2016? Or will it be the little disease that few (at least in the U.S.) have heard of? That's the question being debated by public health officials this year.



Current (2015) worldwide range of Zika virus. Central and South American countries were first reported with the disease in 2015 (U.S. Centers for Disease Control).

Now health officials are bracing for another mosquito-borne disease caused by Zika virus (ZIKV). A cousin of west Nile virus and dengue fever, ZIKV has been thought of as a less severe form of these flavivirus. Most people who get ZIKV show no, or very mild symptoms. Others exhibit a rash, conjunctivitis (inflammation of the eye), and flu-like symptoms. Most people do not get as sick with ZIKV as with dengue fever or chikungunya, and recover relatively quickly.

For this reason, since its discovery in 1947 until 2007, it was not on the radar of many public health experts. But in 2007 ZIKV cases started to spread throughout Micronesia French Polynesia, and eventually Easter Island. There it was thought to possibly be the cause of a twenty-fold increase in cases of Guillain-Barre syndrome – an autoimmune disease of the central nervous system that can be highly disabling, at least temporarily.

In 2015 the disease made its appearance in Brazil and has since spread to at least nine other member states of the Pan-American Health Organization (PAHO/WHO), and prompting that organization this month to issue an alert to all of member public health agencies.

A woman in Brazil holds her daughter, who was born with microcephaly. An increase in the disease — a form of brain damage — has been blamed on the Zika virus. Credit Felipe Dana/Associated Press

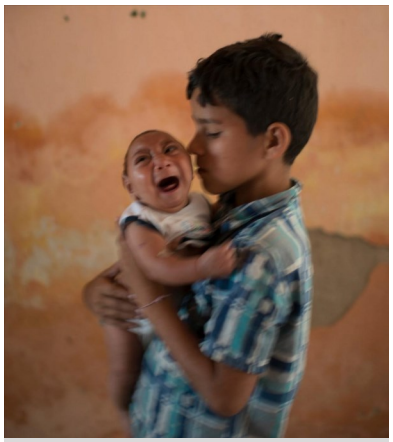
So here's where things get a little scary. Since the arrival of ZIKV to Brazil, the virus has been detected in babies born with a condition known as microcephaly. Microcephaly is a relatively rare condition where the brain fails to develop normally. It may result in miscarriage or in babies being born with under-sized brains. There is no cure for the condition. The PAHO/WHO alert noted that the number of diagnosed cases of microcephaly has increased to 2700, a 10-fold increase, in Brazil this year. Health officials there are worried that there might be a connection between this unprecedented increase in microcephaly and the arrival of ZIKV. And last month, unusual nervous system birth defects were also reported in Polynesian mothers who tested positive for flavivirus antibodies.

(Continued on page 7)

(Continued from page 6)

A Zika virus infection is symptomatic only in 18% of cases; symptoms can be confused with those of dengue or chikungunya, among others. After incubation for 3 to 7 days [range 3-12], the presence of virus in blood is generally observed for 2 to 5 days. Symptoms are usually mild and last 4 to 7 days. Symptoms typically include fever, rash, joint pain, and the red eyes of conjunctivitis. Other symptoms can include muscle pain, headache, pain behind the eyes, and vomiting.

Public health officials guess that these cases may result when a pregnant woman who is bitten by an infected mosquito contracts the virus. The virus then infects the developing fetus, resulting in this serious condition.



In this Dec. 23, 2015 photo, 10-year-old Elison nurses his 2-month-old brother Jose Wesley at their house in Poco Fundo, Pernambuco state, Brazil. (AP Photo/Felipe Dana)

So far there is no hard proof of a connection between ZIKV and microcephaly or Guillain-Barre syndrome, but medical researchers are rushing to learn more about the virus and its possible effects on human health. According to one expert, quoted in the New York Times, it could be that the risk of microcephaly is increased among people who have previously contracted dengue fever or chikungunya. If this hypothesis proves correct, the risks to the unborn in this country would likely be negligible.

Currently, ZIKV is thought to be transmitted by the yellow fever mosquito, *Aedes aegypti*, which has frequently been collected in low numbers in Charleston, South Carolina. A close relative, the Asian tiger mosquito (*Aedes albopictus*), is very common in South Carolina and the southern U.S. Unlike West Nile virus, which is primarily a disease of birds, ZIKV is solely a disease of primates. To be spread among people, it must be picked up from another infected human.

Dengue and chikungunya are similar, human-only, viruses that have not been quick to spread in U.S. locations. This may be the result of lower rates of mosquito biting in the U.S., perhaps due to our more indoor lifestyles, or more common use of repellents. Some experts argue that for similar reasons ZIKV is likely to be slow to establish in the U.S. Nevertheless, Brazil shows that given the right conditions, this virus is capable of establishing itself very rapidly, with 85,000 known infections in its first year of spread.

A few U.S. cases of ZIKV have been reported in 2015, but all from travelers who contracted the virus elsewhere. Mexico has also seen a few cases this year. There are still no known cases of ZIKV, however, contracted within the U.S.

So be prepared to hear more about the zika virus this year. It may turn out to be a big event, or it may not. Even if we didn't need more reasons to dislike biting mosquitoes, now we have one more reminder of the importance of residential mosquito control, and putting on the insect repellent when venturing outdoors.

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Michael E. Merchant, PhD, BCE
Professor and Extension Urban Entomologist
Texas A&M University AgriLife Extension Service
http://insectsinthecity.blogspot.com; http://citybugs.tamu.edu

The first local transmission of Zika virus in Puerto Rico was confirmed on Dec. 31, 2015

2016 Calendar of Events

Date (2016)	Meeting/Event	Venue	Location
Feb 7 — 11	American Mosquito Control Association 82nd Annual Meeting	Savannah International Trade & Convention Center	Savannah, GA
Mar 29 — 31	13th Arbovirus Surveillance and Mosquito Control Workshop	Antasia Mosquito Control District, Base Station Complex	St. Augustine, FL
Mar 30 — Apr 1	Mid-Atlantic Mosquito Control Association 41st Annual Conference	The Inn at Opryland	Nashville, TN
May 9 — 11	American Mosquito Control Association Annual Washington Conference	The Melrose Georgetown Hotel	Washington, DC
Jun 2	South Carolina Mosquito Control Association Annual Summer Workshop	Santee Cooper Somerset Employee Recreational Park	Pinopolis, SC
Jun 26 — Jul 2	National Mosquito Control Awareness Week	http://www.mosquito.org/meetingsevents	
Nov 2 — 4	South Carolina Mosquito Control Association 44th Annual Meeting	Hickory Knob State Resort Park	McCormick, SC
Nov 10	Webinar: "Live to Ride, Ride to Kill: Salt Lake City Mosquito Abatement Districts's Urban Catch Basin Program Using Bikes" by Brad Sorenson	http://www.mosquito.org/meetingsevents	

Web Resources

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

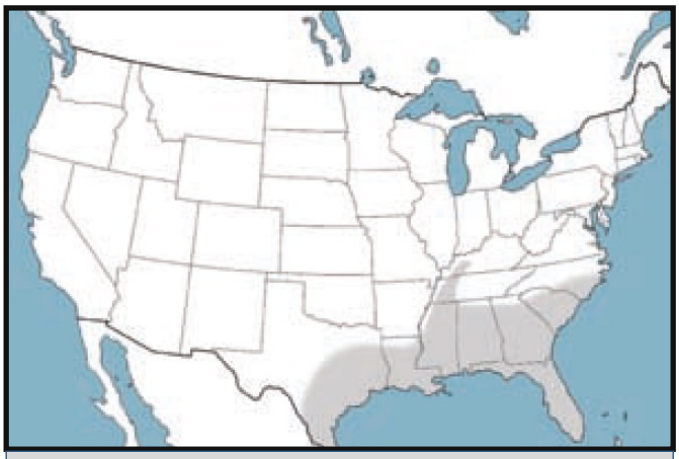
Species Spotlight: *Culex nigripalpus*

The Florida SLE Mosquito

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

Description. *Culex nigripalpus* adults are small to medium sized, with a light brown thorax and dark brown abdomen. The patches of white scales on the thorax are small and rarely consist of more than 6 scales. Abdominal segments have basal patches of white scales laterally and may also have narrow pale basal bands. The palps and proboscis are dark. The tarsi and wings are dark scaled.

Larvae. Larvae occur in ditches, grassy pools, and marshes of semi-permanent or permanent nature; occasionally in wheel ruts, leaf axils of plants, and artificial containers (probably best described as floodwater *Culex*). *Culex nigripalpus* is most abundant in southern coastal regions where winter temperatures are mild. During warm periods, the species will expand its range northward, but adults and larvae are killed when they are exposed to extended periods of below-freezing temperatures.



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

Adults. This species is opportunistic in its choice of hosts: tree frogs, birds, horses, cows, dogs, rabbits, armadillos, and humans. It attacks before sunrise and after sunset. Females prefer to lay eggs in freshly flooded roadside ditches and agricultural furrows, habitats that flood infrequently and, once flooded, remain wet from 10 to 14 days before drying down completely. The flight range is 0.5 to 1 mile.

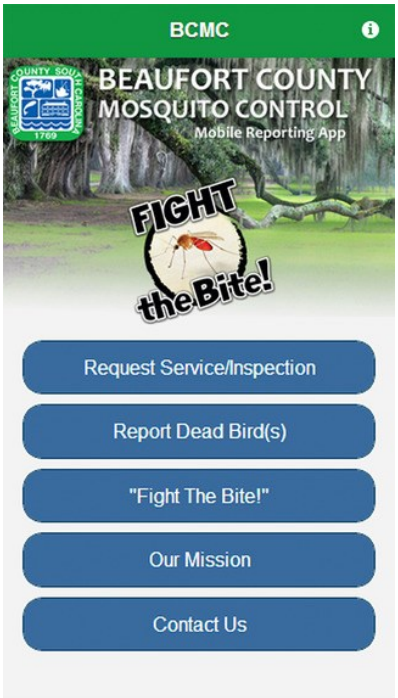
Medical Importance: In southern Florida, *Culex nigripalpus* is a proven primary enzootic (normal level of virus transmission from mosquitoes to wild birds) and epidemic (unusually high level of virus transmission from mosquitoes to humans) vector of St. Louis Encephalitis (SLE) virus. This species is dangerous to arboviral transmission because of mass egg dumping and mass blood feeding behaviors that are synchronized with rainfall events. Other arboviruses that are transmitted by this species include: West Nile virus, Tensaw virus, dog heartworm, and eastern equine encephalitis virus.

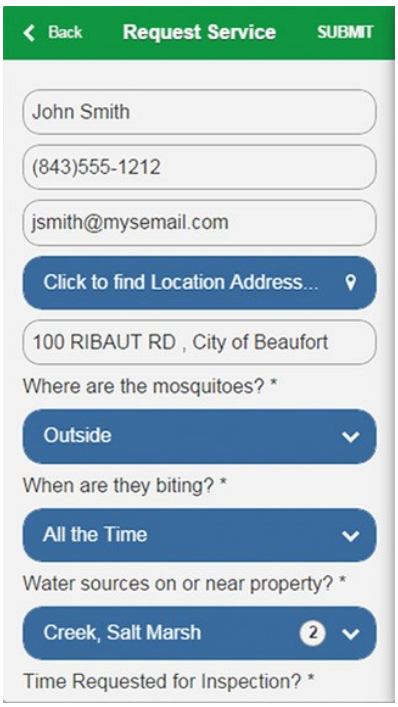
"Even a mosquito doesn't get a slap on the back until it starts to work."

- Austin O'Malley

Beaufort County Mosquito Control Mobile Reporting App

Gregg J. Hunt, Director of Beaufort County Mosquito Control





In 2012, the Governor of Texas declared a public health emergency because of a West Nile virus (WNV) epidemic. Almost 1,900 human cases with 89 deaths were confirmed during this disease threat. Most of the national media focused on the Dallas and Ft. Worth areas. During the following year, Plano (a nearby city) created an App to monitor WNV activity. This new community-service approach was impressive!

Since 2007, Beaufort County Mosquito Control (BCMC) continues to collaborate with the University of South Carolina at Beaufort (USCB) with various research projects, such as the recent evaluation of our abatement efforts, adult *Culex* populations, and WNV activity by using mathematical modeling. I invited the USCB researcher and 2 undergraduate students to also develop a Mosquito Control Mobile Reporting App. Afterward, Beaufort County Information Technology personnel modified the Android and iPhone Apps for compatibility with the county communication system.

The App allows residents and visitors to report mosquito problems, request property inspections, photograph dead birds (including geocode location data) for our WNV surveillance program, and review mosquito control information. After submittal, BCMC, local South Carolina Department of Health and Environmental Control (SCDHEC) offices, and/or Dr. Chris Evans (SCDHEC Bureau of Laboratories) receive instant reports for subsequent action.

Overall, the App represents an important partnership and strategy between BCMC, USCB, and SCDHEC. The free App is available via the following links:

Android: https://play.google.com/store/apps/details?id=net.bcgov.bcmc

Apple: https://itunes.apple.com/us/app/beaufort-county-mosquito-control/id1003275667?ls=1&mt=8

Thanks to all of those who helped make the 2015 SCMCA Annual Conference such a great success! Thanks to all speakers and sustaining members for their contributions. Special thanks to the 2015 President, John Grant. The 2016 Board of Directors would also like to express appreciation to those individuals leaving the board: Upper State Rep Jack Hudish, Mid-State Rep Katherine Sandel, and Lower-State Rep John Glass.

Mosquito-Disseminated Pyriproxyfen Yields High Breeding -Site Coverage and Boosts Juvenile Mosquito Mortality at the Neighborhood Scale

Journal Article Synopsis

A major drawback of current mosquito control strategies is that mosquito breeding sites are often overlooked, and therefore left untreated, during control campaigns. One appealing alternative proposes exploiting the innate breeding-site-finding ability of female mosquitoes to have them disseminate tiny insecticide particles that poison their offspring.

A disseminating station dusted with pyriproxyfen.

One research article provides evidence that urban mosquitoes can be very effective at transferring pyriproxyfen dust particles from simple dissemination stations to artificial breeding sites at the neighborhood scale. The results were published in *PLoS Neglected Tropical Diseases* in April 2015: http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0003702.

Abad-Franch, F., Zamora-Perea, E., Ferraz, G., Padilla-Torres, S. D. & Luz, S. L. B. (2015). Mosquito-Disseminated Pyriproxyfen Yields High Breeding-Site Coverage and Boosts Juvenile Mosquito Mortality at the Neighborhood Scale. PLoS Neglected Tropical Diseases 9, 1-17.

Pyriproxyfen is an insect juvenile-hormone analog that kills immature mosquitoes, especially pupae, at extremely low doses; it also reduces fertility in adult mosquitoes, but has no lethal or repellent effects on them. Pyriproxyfen is recommended by the World Health Organization as a safe mosquito control means even in drinking water.

In this study, researchers showed that mosquitoes effectively transferred insecticide particles (pyriproxyfen) from dissemination stations to sentinel breeding sites over distances between 3.3 and 437 yards in a tropical urban neighborhood. This yielded high breeding-site coverage, with up to 94.3% of sentinel breeding sites presenting evidence of contamination with mosquito-disseminated insecticide. Researchers recorded a 10-fold increase of juvenile mosquito mortality and a 10-fold decrease of adult mosquito emergence during the four-month dissemination trial. In combination with other tactics, this approach has the potential to considerably enhance mosquito-borne disease prevention, particularly in urban settings.

Dissemination Stations were two-liter, black plastic cups with 400 ml of tap water and the inner wall lined with black, velvet-like cloth dusted with 5 g/m^2 of pyriproxyfen (SumiLarv® 0.5 g granules, Sumitomo, London, UK) ground to fine powder in a metal mortar. One hundred Dissemination Stations were deployed in a sub-area of about 17.3 acres nested within the 123.6-acre study area.

2015 SCMCA 43rd Annual Meeting

Ocean Drive Beach and Golf Resort • North Myrtle Beach, South Carolina
November 4-6, 2015

Dr. Harry Savage
Arbovirus Update: A Review of Mosquito Vectored Diseases in the USA;
Update on Heartland and Bourbon Viruses: Human Pathogens Transmitted by Ticks

Tammy Brewer
SCMCA: Then and Now;
Creating an Ordinance

Chris Lesser
AMCA Update: What the AMCA Does for You;
Man-Made & Natural Container Mosquito Species: Ecology and Control

Dr. Thomas Kollars, Jr.
A Phase 1 Meta-Evaluation of a Mosquito-Borne Disease Program

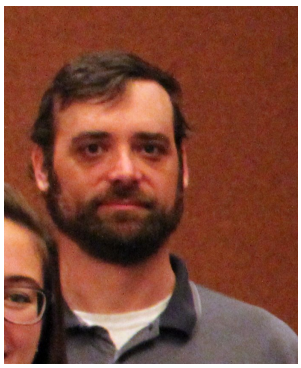
Joe Conlon
Is Mosquito Control for the Birds?

Tim Drake
Clemson Pesticide Registry Update & Pollinator Program

Derek Drews
Mosquito Resistance Basics and Bottle Assay Techniques

Jim Wright
Residential Mosquito Control

Ben Rountree
Labels, SDS, and the Globally Harmonized System



Olin Towery
Richland County Vector Control Program Update

Laura Peaty
Chatham County Mosquito Control Update

Chenille Williams
The Impact of Pyrethroids on Water Quality

Dr. Chris Evans
South Carolina State Arbovirus Update

Photos: Tammy Brewer

2015 SCMCA 43rd Annual Meeting, continued

Awards

Larry McCall
Silver Dipper Award

Stacy Harris accepts the award on behalf of Larry McCall

Trey English
Silver Dipper Award

John Grant accepted the award for Trey English

Joe Strickhouser
L.A. Williams, Jr Award

For Outstanding Service and Contributions to Mosquito Control

Doug Brogden – Duke Energy Carolinas
2015 Mosquito Control Technician of the Year

Banquet

Early Bird Social

2015 SCMCA Board Members

Pictured Left to Right:
Katherine Sandel – Middle Rep
Olin Towery – Secretary/Treasurer
Ben Rountree – At-Large Rep
John Grant – President
Stacy Harris – Vice President
Jack Hudish – Upper Rep
Tammy Brewer – Historian
Joe Strickhouser – Past President
John Glass (not pictured) – Lower Rep

Photos: Tammy Brewer

SOUTH CAROLINA MOSQUITO CONTROL ASSOCIATION, INC.
MEMBERSHIP APPLICATION

CONTACT INFORMATION

NAME: _____

ORGANIZATION: _____

ADDRESS: _____

_____

_____

COUNTY: _____

WORK PHONE: _____

FAX: _____

E-MAIL: _____

NEWSLETTER DELIVERY OPTIONS

I prefer to have the SCMCA Newsletter sent to me by: ☐ MAIL ☐ E-MAIL.

MEMBERSHIP DUES

☐ Active Member $10.00
☐ Sustaining Member* $150.00
**Includes one active membership*

Membership Renewal is due at the Annual Meeting.

Please make checks payable to SCMCA. Return this form and your payment to:

SOUTH CAROLINA MOSQUITO CONTROL ASSOCIATION, INC.
ATTN: Olin Towery, Secretary-Treasurer
Richland County Vector Control
400 Powell Rd
Columbia SC 29203
Office Phone: (803) 576-2428

For Office Use Only

Region	Amount	Date	Payment Type
☐ Upper	☐ $10.00		
☐ Middle	☐ $150.00		☐ Cash
☐ Lower	☐ Other $_____	_____	☐ Check Number: _____

2016 SCMCA Board of Directors

President: Stacy L. Harris
Columbia Police Department
Housing Inspector/Code Enforcement
2131 Devine St
Columbia SC 29205
Phone: (803) 737-3002
SLHARRIS@columbiasc.net

Vice-President: Chris L. Evans
SCDHEC – Bureau of Laboratories
Medical Entomology
8231 Parklane Rd
Columbia SC 29223-4903
Phone: (803) 896-3802
EVANSCL@dhec.sc.gov

Secretary-Treasurer: Olin Towery
Richland County Vector Control
400 Powell Rd
Columbia SC 29204
Phone: (803) 576-2428
TOWERYO@rcgov.us

Historian: Tammy Brewer
Richland County Vector Control
400 Powell Rd
Columbia SC 29204
Phone: (803) 576-2425
BREWERTA@rcgov.us

Upper Region: Shannon Williams
Greenwood County Lake Management
600 Monument St STE 19
Greenwood SC 29646
Phone: (864) 942-8560
SHANNON.WILLIAMS@greenwoodsc.gov

Middle Region: Robert L. Cartner
SCDHEC – Bureau of Laboratories
Medical Entomology
8231 Parklane Rd
Columbia SC 29223-4903
Phone: (803) 896-0940
CARTNERL@dhec.sc.gov

Lower Region: Ron C. Plunkett, Jr
Berkeley County Mosquito Abatement
223 Live Oak Dr
Moncks Corner SC 29461
Phone: (843) 719-4646
ronaldcplunkettjr@gmail.com

At-Large: Joe Andrews
AllPro Vector Group
640 Griswold St
Northville, MI 48167
Phone: (919) 343-8440
JOEA@allprovector.com

Past President: John Grant
Santee Cooper Vector Management
1 Riverwood Dr
Moncks Corner SC 29461
Phone: (843) 761-8000 x4407
JOHN.GRANT@santeecooper.com

Advisor: L.A. Williams Jr.
SCDHEC – BEHS
2600 Bull St
Columbia SC 29201
Phone: (803) 896-0655
WILLIALA@dhec.sc.gov

Website:
www.scmca.net

E-Mail:
scmosquitocontrolassociation@gmail.com

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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