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GMCA Newsletter

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April 10, 2019

Washington Day, 2019

May 15

The 21st Annual AMCA Washington Conference will take place May 14-16, 2019 at The Hilton Alexandria Old Town in Washington, DC. AMCA members will meet to discuss issues that can only be resolved at the Federal level. The Washington Conference is geared towards those US AMCA members concerned with the impacts of the decisions the federal government makes that have an effect on mosquito control and public health pesticides.

Position papers have not yet been released but will soon be available at <https://www.mosquito.org/page/21stWashConf>.

Annual Meeting

Lake Blackshear, Cordele, GA; Oct 16-18

The GMCA Board of Directors is currently working on the agenda for the annual meeting, being held at Lake Blackshear Resort in Cordele, GA on Oct 16-18.



So far, we have a great line-up of speakers, with topics ranging from the applied to the theoretical. However, there is still space on the agenda, so if you like to talk (even if you don't, we are a nice group and won't bite) and have something to say about mosquito control, we would love to have you come be a speaker.

President: Steve Pavlovich

VP: Allen Hillman

Directors

1-year: Laura Peaty

2-year: Tiffany Nguyen

3-year: Doug Nelson

Sustaining: Joe Strickhouser

ST: Karen Farris

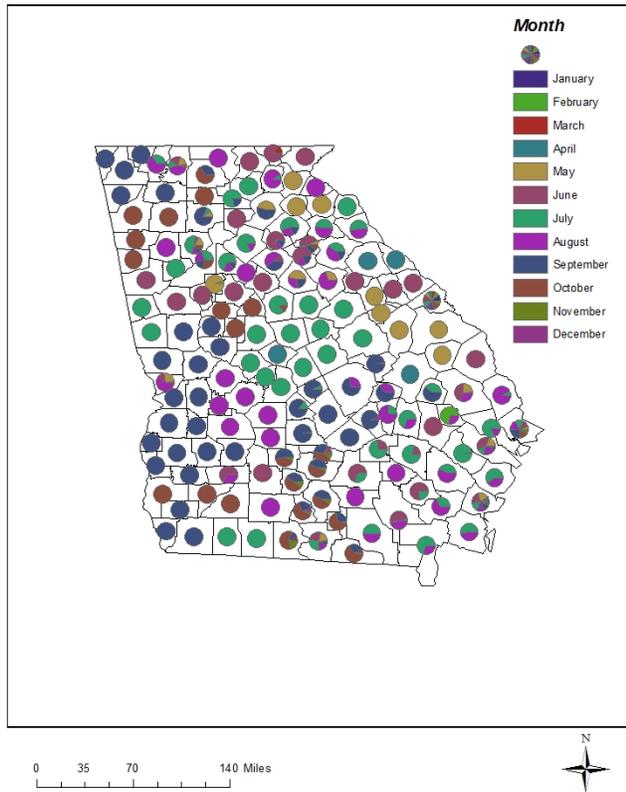
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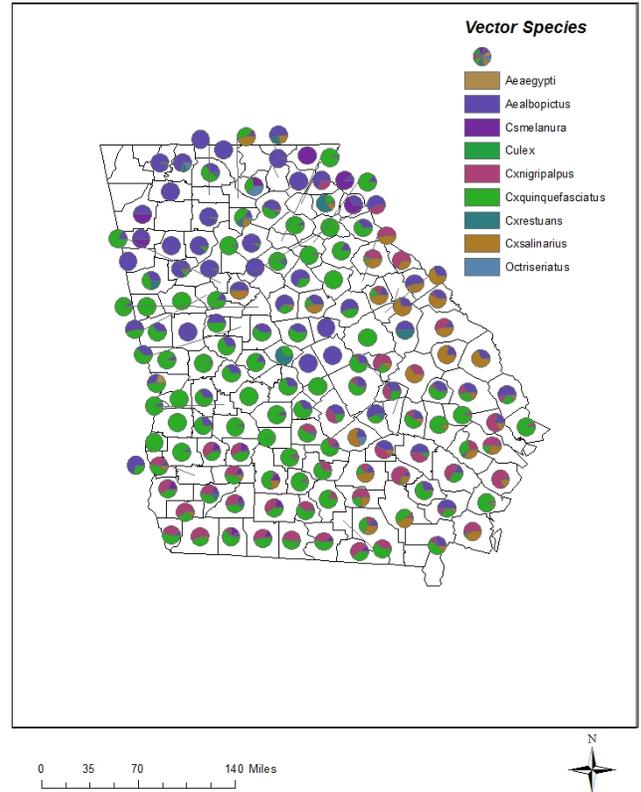
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Mosquito Surveillance in Georgia, 2018

Mosquito Surveillance Data by Month, 2018



Mosquito Surveillance Data by Vector Species, 2018



Limited mosquito surveillance programs occur in many Georgia counties (http://www.gamosquito.org/resources/GA_Mosquito_Control_Programs2017.pdf), but most counties with mosquito control programs conduct control activities without appropriate mosquito surveillance. Data obtained from mosquito surveillance activities are important to guide vector control operations by identifying vector species, providing an estimate of vector species abundance, and by indicating geographic areas where humans and animals are at greatest risk of exposure to WNV or other arboviruses.

Our goals for the 2018 mosquito surveillance season included conducting some level of mosquito surveillance in every county in Georgia, continuing to provide equipment and training to Environmental Health Specialists in all 18 Public

Health Districts, and having the ability to support local outreach for mosquito complaints. The accomplishment of these goals will allow the Georgia Department of Public Health to be better prepared for the next mosquito-borne disease to emerge.

The primary purpose of mosquito surveillance is to determine the species composition, abundance, and spatial distribution within the geographic area of interest through collection of eggs, larvae, and adult mosquitoes. Surveillance is valuable for determining changes in the geographic distribution and abundance of mosquito species, evaluating control efforts by comparing pre-treatment surveillance data and post-treatment surveillance data, obtaining relative measurements of the vector populations over time, building a historical database, and

facilitating appropriate and timely decisions regarding interventions.

The likely consequence to Georgia of a continued lack of good vector surveillance and control programs is that we would not know which mosquitoes (thus which diseases) were present in specific areas of the state and would be unable to provide accurate information regarding the risk of disease transmission. In addition, we would not know which new arboviruses were being introduced into Georgia and which were being competently vectored. As a result, we would be unable to detect arboviral pathogens early, before they infect humans. This could result in preventable cases of arboviral diseases being transmitted that could have been prevented, and, because some of these pathogens are singularly lethal, Georgia could experience unnecessary morbidity and mortality.

These maps shown above were created in December 2018. They depict the month(s) in which surveillance was done in each county and the presence or absence of the important vector species *Aedes aegypti*, *Ae albopictus*, *Culiseta melanura*, *Cx nigripalpus*, *Cx quinquefasciatus*, *Cx restuans*, and *Cx salinarius*. This level of surveillance was only possible through the combined effort of State, District, and County Environmental Health, as well as assistance from several other agencies.

Our goals for 2019 are:

- Conducting some level of mosquito surveillance in every county in Georgia again
- Doing targeted surveillance in areas where *Ae aegypti* were found in the 1950s
- Providing equipment and training to Environmental Health Specialists in all 18 Public Health Districts
- Having the ability to support local outreach for mosquito complaints

- Continue doing testing for pesticide resistance, esp in high risk areas of Georgia

The accomplishment of these goals allows the Georgia Department of Public Health to be better prepared for the next mosquito-borne disease to emerge.

I believe we will accomplish these goals, with the help and support of a great many people.

See

<http://www.gamosquito.org/resources/MSR.pdf> for information on the 2017 mosquito surveillance season.

<http://www.gamosquito.org/resources/MSR2.pdf> for additional information on the 2018 mosquito surveillance season.

https://www.cdc.gov/mmwr/volumes/67/wr/mm6717e1.htm?s_cid=mm6717e1_w for the CDC's Trends in Reported Vectorborne Disease Cases — United States and Territories, 2004–2016

Year	# counties doing surveillance	% of counties
2001	2	1.3%
2002	11	6.9%
2003	26	16.4%
2004	56	35.2%
2005	55	34.6%
2006	28	17.6%
2007	28	17.6%
2008	28	17.6%
2009	26	16.4%
2010	22	13.8%
2011	19	11.9%
2012	12	7.5%
2013	13	8.2%
2014	15	9.4%
2015	13	8.2%
2016	60	37.7%
2017	159	100.0%
2018	159	100.0%

Statewide Insecticide Resistance Testing of Mosquitoes in Georgia

With the continuation of positive human cases of arboviral diseases such as La Crosse Encephalitis, St. Louis Encephalitis, Eastern Equine Encephalitis, and West Nile Virus in Georgia in 2018, mosquito control methods are critical. Pesticide Resistance has been found to be a component for ineffective mosquito control. There is a lack of insecticide resistance studies conducted statewide in Georgia and minimal knowledge of which pesticides mosquitoes are resistant to.

Mosquito egg collections were performed by Vector Surveillance coordinators and Environmental Health specialists around the state. The state entomologists and regional entomologist are tasked to conduct insecticide resistance testing in all high risk urban regions of Georgia for the next two years.

With the implementation of the first statewide pesticide resistance testing program, a clearer picture of the type of mosquitoes and their resistance to specific pesticides commonly used in Georgia will be provided. This information will enable the DPH and the Cooperative Extension Service to advise and train current mosquito control operators in using the most effective and cost-effective pesticide for their target-mosquito. The statewide pesticide resistance testing program is a major component in reducing the exposure of mosquito-borne disease risk to the public and will help reduce ineffective pesticide applications, thereby reducing pesticide exposure to pollinators and other non-targets.

References: https://www.cdc.gov/parasites/education_training/lab/bottlebioassay.html

Representatives

Cooperative Extension – Elmer Gray
Public Health – Rosmarie Kelly

Past President – Joey Bland

Active Membership (\$20) is for any and all persons who are professionally engaged in any branch of mosquito and related pest control work, and persons interested in the cause of mosquito and related pest control who desire affiliation with this association.

Companies that are professionally engaged in any branch of mosquito and related pest control work who desire affiliation with this association shall be eligible for commercial membership. If a pest control company wishes to become a Commercial Member (\$100), the company name will be listed on the Commercial Members page.

Any person or firm interested in the promotion of the purposes of GMCA may become a Sustaining Member (\$400). Sustaining Membership includes one individual membership and one exhibit space for the Annual Meeting.

Please check out our website – www.GAmosquito.org – for additional information.

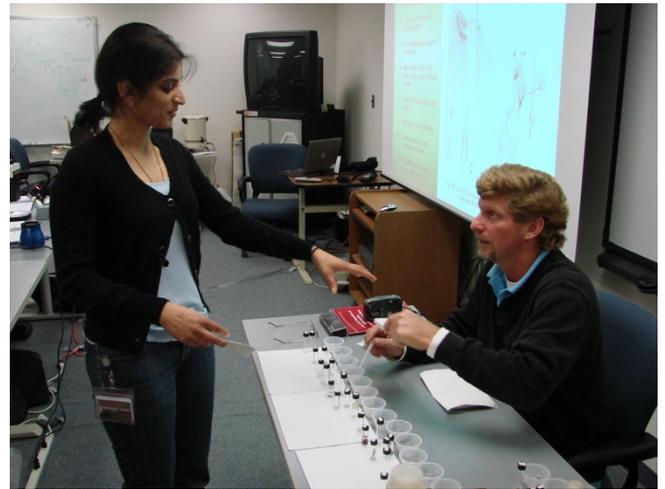
If you have a published paper you would like posted on the GMCA website (<http://www.gamosquito.org/publications.htm>), please send a copy to the webmaster at Webmaster@gamosquito.org.

Mosquito ID Class, 2019

The GPDH is offering a FREE 2-day adult mosquito ID course in Albany, GA on April 15-16. Along with mosquito identification, information concerning surveillance and control is also discussed in this class, and Georgia-specific information about arbovirus surveillance is presented. This year, there will be information provided on collecting mosquitoes for pesticide resistance studies. These classes are open to Environmental Health Specialists, PCOs, Mosquito Control personnel, and any others with a desire to learn mosquito identification. CEUs for Georgia Pesticide License CAT 31 and 41 are available.

This is the 16th year we have offered this class in Georgia. Some years we have been able to offer both adult and larval ID classes, but, because the class is free, it all depends on funding.

Parker Whitt is teaching this course again. He received his bachelor's and master's degrees from Appalachian State University and worked for the Forsyth County Health Department after graduating. When a state position came open, he jumped at the chance to learn under Bruce Harrison, who has been studying mosquitoes for about four decades. When his state position was eliminated, Parker joined the NC Dept of Agriculture mattress patrol, dealing with bed bugs and the like. However, he still spends days hiking through the woods, trapping mosquitoes, raking for ticks and catching snakes.





The Georgia Mosquito Control Association

GMCA

c/o Karen Farris

1916 North Leg Rd, Bldg K

Augusta, GA 30909

www.GAmosquito.org

