COMING EVENTS


November 14 – 16, 2016. NCMVCA (51st) Annual Conference Information. Carolina Beach, NC. Please visit ncmvca.org/conference for more information.


COMMITTEE CHAIRS

Annual Meeting  
T. Wayne Gale

Executive  
Stanton E. Cope

Membership  
Bill Schankel

Training & Member Education  
Isik Unlu

Archives  
Eric Williges

Finance  
Gary Hatch

Public Relations  
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Young Professionals  
Levy Sun

Awards  
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Angela Beehler

Publications  
Steve Presley

Science & Technology  
Seth Britch

Bylaws & Policy  
Janet McAllister

Nominating  
Ken Linthicum

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ON THE COVER

Photo Courtesy of: Stock Image

Our mission is to provide leadership, information and education leading to the enhancement of health and quality of life through the suppression of mosquito and other vector transmitted diseases and the reduction of annoyance levels caused by mosquitoes and other vectors and pests of public health importance.
To quote Sonny and Cher, “and the beat goes on…. “. As I write this, it has just been announced that Zika-infected mosquitoes have been found in Miami Beach. What interesting times to be involved in mosquito control!

Zika virus is turning out to be quite a challenge. It is the first mosquito-transmitted virus known to cause birth defects in humans. It is the first pathogen known to cause birth defects in humans since cytomegalovirus was discovered in the mid-1950s. It is the first virus known to cause Joe Conlon to take a cheese grater to his head! What's next?

With all due respect to Zika, we must not forget the other mosquito-borne viruses. West Nile virus infected over 2,000 people in the United States last year, causing 119 deaths. And, it appears as if we will have another ‘hot’ year this year. Yet, West Nile has almost fallen off the radar screen. St Louis encephalitis popped up in Maricopa County, Arizona last year.

I hope you are all making plans to attend the annual meeting in San Diego February 2017. We had a record number of symposia submitted, including three on Aedes aegypti. Also, Dr. Lyle Petersen, Director of CDC’s Fort Collins laboratory, has graciously agreed to give an update on Zika at the plenary session. Also, if you have not been to the Town and Country hotel, you are in for a treat. It is more of a compound than a hotel, with several styles of accommodations, multiple swimming pools, eateries, an excellent convention center, and easy access to the San Diego trolley system. I look forward to personally greeting all of you in San Diego!

With best personal regards and thanks for all you do,

Stan
Stanton E. Cope, PhD
President, American Mosquito Control Association
I reported in my last newsletter that there are a number of gaps in the information our profession possesses in terms of mosquito surveillance/control capability. Fortunately, these shortfalls are being addressed to varying degrees. The National Association of City and County Health Officials (NACCHO) has been contacting districts to obtain this information. I’ve been assisting in this endeavor, having been a member of NACCHO’s Mosquito Control Committee and, thus, well aware of their considerable level of expertise in these matters. You may recall they published 2 excellent documents on mosquito control: Public Health Confronts the Mosquito: Developing Sustainable State and Local Mosquito Control Programs and Before the Swarm: Guidelines for the Emergency Management of Mosquito-Borne Disease Outbreaks. Both documents are superb resources that capture the vital elements of their subject quite nicely. Please cooperate to the extent practicable. It will ultimately be to our benefit as I will finally have access to information that will help me address the varied challenges I face from the media and citizenry. Transparency in our profession is key to both our credibility and our ability to allay the public’s fears about our operations. We certainly shouldn’t have anything to hide, should we?

As you can well imagine, AMCA members in many different local, state and federal agencies are at the forefront of the fight to contain the current Zika outbreak in south Florida. CDC Emergency Response Teams, personnel from the Florida Medical Entomology Laboratory in Vero Beach and other AMCA members have provided on-site guidance with respect to resistance/efficacy testing and aerial spray operations. In addition, members from all areas of the country have fielded media questions with aplomb and a view toward educating the public. Fox News aired a hour-long special on Zika that featured extraordinarily professional and informative features by Shelly Redovan and other staff from the Lee County Mosquito Control District in addition to personnel from the Florida Keys Mosquito Control District. The aplomb with which all involved informed the public during the on-air interviews was truly remarkable – well done! Americans should be grateful that they have such knowledgeable and dedicated public health professionals protecting them. Heartfelt kudos to all!

The current outbreak in Florida was not unanticipated and the Zika preparedness plans drafted by the state and local agencies have been working as planned. Communication among interested parties has been key, with weekly teleconferences involving CDC and various national public health organizations providing updates to keep stakeholders properly informed. Given the lack of congressional appropriation prior to their current recess, Florida Governor Rick Scott’s appropriation of $26 million has proven invaluable in helping stricken counties ramp up their surveillance and control capabilities to meet the Zika threat. As of this writing, 35 counties have requested funding and 27 have received it to date. Priorities regarding allocations of emergency funds were set by demonstrable risk.

Hopefully, our experiences with this outbreak will provide an impetus for the congressional funding we’ve requested during our Legislative Conference and during several congressional hearings in which AMCA members were prominently involved. While Zika preparedness/control has been the platform for requesting funds, we’ve made it quite clear that recent outbreaks have demonstrated the need for increased surveillance and control capacity across the board and that we should look beyond Zika to prepare for future vector-borne disease threats. Hopefully, Zika will have taught them a lesson – which we must continually reinforce at local, state and national levels. At a minimum, it has provided regulatory agencies a vehicle to review and provide FIFRA Section 18 exemptions for the use of autodissemination ovitraps such as the In2Care® mosquito trap http://www.in2care.org/ and further review and possible deployment of the OX513A GM mosquitoes from OXITEC Ltd.

Of additional significance, CDC has awarded to AMCA a contract of $1.3 million to conduct certification training for vector control personnel across the country. Dr. Isik Unlu and several others have done outstanding work in writing the proposal, obtaining training sites and instructor’s certification criteria, lecture materials and a myriad of other tasks that required an enormous investment of time above and beyond their normal duties. You’ll be hearing more about these important initiative in the near future. This unique opportunity allows us to provide quality training nationwide in all aspects of integrated mosquito management that will be applicable to all vector control professionals. We’ll keep you posted.

I have spent a great deal of media time lately discussing repellents and control methods that work and, in particular, those that don’t. It appears that someone is listening – and that’s a good thing. The New York state Attorney General’s office has recently issued cease and desist letters to seven companies that market products with claims that the products prevent or protect against Zika virus. The letters demand that the companies selling these products stop advertising them as “Zika-protective” or “Zika-preventive.” The Attorney General also issued a consumer alert warning about the deceptive ads and directing them to EPA-registered repellents – as
Notes from the Technical Advisor (Continued)

we all have been advising for decades. The state advised consumers to avoid ultrasonic and botanical mosquito repellents, as well as Vitamin B-based repellents, due to their problematic efficacy. Products that precipitated the cease and desist order include

- Wildheart Outdoors Natural Mosquito Repellent Bracelet
- MosQUITo Repellent Bracelet Wristband Band
- Neor Mosquito Repellent Bracelet
- Kenza High Quality Zika Mosquito Repellent Smiley Patch
- Mobile Pro Gear ZIKA Shield Mosquito Repellent Bands

As you might well imagine, I could go on at further length about events surrounding our profession these days, but in the interest of space I’ll conclude here. Best of luck this mosquito season!

Notes from the Technical Advisor

ADAPCO Inc.
AllPro Vector Group
AMVAC Chemical Corp
Application Dynamics
Bayer Environmental Science
Becker Microbial Products
Central Life Sciences
Clarke
Curtis Dyna-Fog, Ltd./ B&G Equipment Company
DEET Education Program
FMC Corporation
London Fog Inc.
McLaughlin Gormley King Company
Ross Life Science Pvt. Ltd.
Target Specialty Products
Univar Environmental Sciences
Valent Biosciences Corp.

SUSTAINING MEMBERS

DISTRICTS

California
- Butte County MVCD
- Coachella Valley MVCD
- Consolidated MAD
- Contra Costa MVCD
- Delano MAD
- East Side MAD
- Fresno Westside MAD
- Greater Los Angeles County VCD
- Kern MVCD
- Kings MAD
- Lake County VCD
- Marm/Nosema Mosquito VCD
- Merced County MAD
- Northwest MVCD
- Orange County VCD
- Placer MVCD
- Sacramento-Yolo MVCD
- Saddle Creek Community Services District
- San Gabriel Valley MVCD
- San Joaquin County MVCD
- San Mateo County MAD
- Santa Barbara County MVMD
- Shasta MVCD
- Sutter-Yuba MVCD
- West Side MVCD
- West Valley MVCD

Idaho
- Canyon County MAD

Illinois
- Macou MAD
- North Shore MAD
- Northwest MAD
- South Cook County MAD

Louisiana
- City of New Orleans MTC
- East Baton Rouge MARC
- Tangipahoa Parish MAD

Massachusetts
- Cape Cod MC

Minnesota
- Metropolitan MCD

New Jersey
- Atlantic County MC
- Mercer County MC
- Warren County MEC

Oregon
- Baker Valley VCD
- Jackson County VCD
- Klamath VCD
- West Umatilla VCD

Utah
- Box Elder MAD
- Davis County MAD
- Magna MAD
- Salt Lake City MAD
- South Salt Lake Valley MAD
- Southwest MAD

Washington
- Adams County MCD
- Benton County MCD

Wyoming
- Teton County Weed & Pest

INDUSTRY

ADAPCO Inc.
AllPro Vector Group
AMVAC Chemical Corp
Application Dynamics
Bayer Environmental Science
Becker Microbial Products
Central Life Sciences
Clarke
Curtis Dyna-Fog, Ltd./ B&G Equipment Company
DEET Education Program
FMC Corporation
London Fog Inc.
McLaughlin Gormley King Company
Ross Life Science Pvt. Ltd.
Target Specialty Products
Univar Environmental Sciences
Valent Biosciences Corp.

REGIONAL/STATE ASSOC.

Georgia MCA
Illinois MVCA
Louisiana MCA
Michigan MCA
Mid-Atlantic MCA
Montana MVCA
Nebraska MVCA
New Jersey MCA
North Carolina MVCA

Northeastern MCA
Pennsylvania VCA
South Carolina MCA
Texas MCA
Utah MAA
Virginia MCA
West Central MVCA
Wyoming MCA

STATE AGENCIES/UNIVERSITIES

Delaware Mosquito Control Section
NJ State Mosquito Control Commission

mosquito.org • Fall 2016 • AMCA Newsletter
Weather impacts and Zika response and preparedness have been the common theme in the Mid-Atlantic states as of JULY 2016. North Carolina has not seen the record drought conditions it saw in JULY 2015 in much of the state while West Virginia (late June) and Maryland (late July) saw record rainfalls this summer with catastrophic flooding in central West Virginia and eastern Maryland. Impacts on mosquito populations varied in these areas. Eric Dotseth with the WVA Division of Infectious Disease Epidemiology reported that there was minimal mass emergence of mosquito species (e.g. *Aedes vexans, Psorophora ferox*) associated with such heavy flood events following this event. Kyle Brinson of the MD Department of Agriculture Mosquito Control Program reported substantial hatch-off of mosquito species in the Eastern Shore area; however, its effects were not long lasting as dry conditions in the Eastern Shore area, preceding this event, readily reduced the flooding impact on mosquito populations.

All the states have Zika response plans in place with varied initiatives implemented in 2016. N.C. has implemented an *Aedes* container inhabiting ovitrap survey in 17 counties across the state, starting in late MAY. The primary focus has been in determining occurrence and/or prevalence of *Aedes albopictus* and *Aedes aegypti* throughout the state (the former of which has not been done in 17+ years). Three state universities (Western Carolina, East Carolina, and N.C. State) are collaborating with the 17 local counties as well as the N.C. Dept. of Health and Human Services (DHHS) in this endeavor. The state has also been funded to hire 2 medical entomologists to beginning re-building arboviral response capacity in the state. To date, no *Ae. aegypti* incidence in the state has been identified.

Delaware (Jamie Joachimowski with the Delaware Mosquito Control Section) reported that their program is responding to identified Zika travel-associated human cases in the state by performing surveillance in areas surrounding case locations and, where necessitated, performing larviciding or adulticiding activities for identified *Ae. albopictus* populations. Maryland (Kyle Brinson) has implemented similar response to identified Zika-case locations.

Other arboviral (non-Zika) activity in the states has been ‘average’ as the season still continues. Virginia (Ann Herring with the Suffolk (Chesapeake area) Mosquito Control Program) reported that the VA State Health Department has reported West Nile virus (WNV) surveillance as follows: (0) human cases, (7) positive (+) mosquito pools, and (1) + sentinel chicken flock, statewide. Neither Maryland nor North Carolina have WNV data reported while Maryland reported 2 WNV+ mosquito pools. Virginia has also reported 15 EEE+ (eastern equine encephalitis) mosquito pools, 3 EEE+ equines, and 10 EEE+ sentinel chicken flocks.

The human Zika travel-associated cases for the Mid-Atlantic Region make up about 10% of the total U.S. states with Maryland and Virginia having the most reported cases (57 and 54, respectively), according to the CDC reporting dated AUG 3, 2016. All the region states have reported cases, ranging from 10 to 57 cases. A few other noteworthy comments:

- Maryland and Forsyth County (N.C.) have obtained BG sentinel traps to enhance adult *Aedes* collections this summer. Forsyth County (Ryan Harrison, Forsyth County Health Department) reported phenomenal results (1,308 female *Ae. albopictus*) in one trap night with the BG
- West Virginia (Eric Dotseth) reported 100 human Lyme disease cases, year to date, in the state

"All the states have Zika response plans in place with varied initiatives implemented in 2016."
Unique and Creative Language Describing Mosquito Infestation Plagues District

The Gem County Mosquito Abatement District’s website allows a citizen to enter information and submit a request for service. Once submitted, the website generates an e-mail based request that can then be processed for service by district staff. This season, more than any others in recent years, the district has received many very unique and creative on-line service requests from constituents. Many members of the American Mosquito Control Association can relate to the creativity of request language, therefore, I have respectfully included some of the finest request gems from Gem County from this season-in-progress:

**JUNE 26, 2016**

“I know you just sprayed. Perhaps we have had a hatch? The mosquitoes in the pasture have scalpels. And they can carry a human away for blood-letting. Repellants (plural as we have tried many brands) do not dissuade them from blood sucking. Full body wrap is the only way to begin to keep them at bay when working in the pasture. The mosquitoes in the veggie garden are almost as vicious. However, lots of spray does keep them at bay. HELP!”

*Author’s note: I am not sure what a “full body wrap” is. Is this something that should be included with long sleeves and long pants when outdoors?*

**JUNE 27, 2016**

“Please come up driveway and spray. If you can leave the little blood suckers’ corpses mounted on little crosses as a warning to others, all the better. Thank you.”

*Author’s note: We looked for little crosses on the BioQuip website, but didn’t find any available.*

**JUNE 29, 2016**

“Thank you Jason and Team. We were out in pasture moving horses today and the vicious vampires were gone. The fogger last night did a very thorough job around the barn, house, and fields. THANK YOU AGAIN!”

*Author’s note: I checked to ensure that the application around all these structures and areas was still in compliance with label requirements in terms of application quantity and frequency. It was, for the season.*

As I read some of these requests, I couldn’t help but remember some of the Lewis and Clark Expedition journal entries that Barb Kubik shared with us at the AMVAC Directors’ Roundtable Luncheon at the 2014 Annual Meeting in Seattle. It takes talent to describe a bad situation with creativity and a sense of humor. I hope that you may find some uniqueness and humor in your respective programs and endeavors as we continue to wade through the challenge of mosquito control in the United States.

**UPCOMING EVENTS (AT THE TIME OF THIS WRITING):**

The Northwest Mosquito and Vector Control Association will hold its 55th Annual Meeting in Welches, Oregon from October 5th to October 7th, 2016. The host venue is the Resort at the Mountain, located 45 minutes from the Portland International Airport. An excellent room rate of $102 per night plus fees and tax has been arranged. For more information, visit www.nwmvca.org.

The Oregon Mosquito and Vector Control Association (OMVCA) will hold its Fall Mosquito Seminar on November 9th and 10th, 2016, in Newport, Oregon at the Hallmark Resort. November 9th will feature presentations for continuing education credits and November 10th will feature the OMVCA business meeting. For more information, please contact Kenneth Carver at Kenneth_Carver@co.washington.or.us, or by telephone: 503-846-2905.

Respectfully submitted,
Jason Kinley
AMCA Regional Director – North Pacific
The first place in the continental United States where people were infected with the Zika virus through the bite of a local mosquito occurred within a one-square mile area in Wynwood, a trendy neighborhood just north of Miami. At current (August 19, 2016) the Wynwood community is the only locale in Florida where active local transmission of Zika is occurring. A total of 33 locally-acquired cases have been identified although the actual number is likely much higher. There have been two additional cases of non-travel related local infections through mosquito in Florida, one each in Palm Beach and Broward counties. The Florida Department of Health initially confirmed two local infections in Wynwood on July 29. The U.S. Centers for Disease Control and Prevention issued a travel advisory warning pregnant women to stay away from the area. No other U.S. state has reported local Zika transmission. Within the South Atlantic region, Florida currently has reported a total of 479 travel related cases, Alabama reports 11, Georgia 48 and South Carolina 31.

WHAT TO EXPECT FROM HERE
Predictably, the Zika outbreak will run a very similar course as what was seen with Chikungunya in 2015 and Dengue in 2014. There will be relatively small clusters of locally acquired cases (mostly in southeast Florida) that will be quickly identified by the established healthcare networks and evoke a swift response from the local mosquito control district and public health agencies. The best form of Zika control continues to be vector elimination through source reduction. However, source reduction is often viewed as unnecessary by the homeowner and infeasible by government agencies therefore requiring the institution of other IPM approaches. A combination of aerially applied larvicides and adulticides at frequent intervals will provide the best control response over large geographic areas. Barrier sprays (typically bifenthrin) and door-to-door education should also be incorporated into an effective IPM approach.

LIFE OUTSIDE OF ZIKA
University of Georgia Public Health Extension Entomologist, Elmer Gray, reports that mosquito populations have been relatively low this summer across most of the state. Most of north Georgia has been classified as under extreme drought conditions through the end of July. Columbus, located in the south central region of the State, recorded its driest July on record based on 115 years of data. Savannah had its second driest July based on 143 years of data. So the southeast has been very hot and dry with those conditions extending into Alabama and South Carolina. Thankfully, August has started with significant rains across the region. Mosquito populations have been minimal up to this point with only localized populations of *Aedes albopictus* developing around problem habitats. The dry conditions were allowing significant *Cx. quinquefasciatus* populations to develop in some areas and West Nile virus has been isolated from mosquitoes from the metro Atlanta area. This area is endemic for WNv, so the finding isn’t unusual. Recent rains have surely flushed the storm water system, so it will be interesting to watch the *Culex* populations in the coming weeks.

Rudy Xue, Director at Anastasia Mosquito Control District, reports that their office successfully offered the 13th annual Arbovirus Surveillance and Mosquito Control Workshop on March 29-31, 2016. The workshop was attended by 174 registrants from many states as well as eight international locations. Additionally, the AMCD officially moved into their new facility in May.

RETIREMENTS, DEPARTURES AND CHANGES
Surprising to many people within the South Atlantic Region, Mike Doyle has resigned as Director of the Florida Keys Mosquito Control District. His last day of service is September 1. Mike has accepted a Medical Entomologist position for the State of North Carolina. At Anastasia County MCD, Dr. Daniel Dixon was hired as the molecular biologist. Also, Entomologist Dr. Lisa Drake left AMCD and returned to her home state New Mexico. ■
Before my formal report, I would like to say we are all saddened by the tragic deaths of Wayne Fisher and Don Pechon the two St. Tammany Parish pilots who lost their lives in April. Also I want to acknowledge the passing of Mills Reeves. For many years, Mills was mosquito control in South Texas. I saw Mills “in action” with the people of that part of the state, and he was an inspiration to all of us in TMCA.

A warm and wet winter washed through the region, filling containers and storm sewers, giving us a good head start on mosquito populations. We’ve now settled in to a fairly normal, if not somewhat cool Summer pattern. Containers are still wet, and storm sewers are condensing into the kind of pools that quinns love. The result is somewhat earlier than normal viral activity.

Starting with WNV, as of Aug. 1, Arkansas has 1 case, Louisiana has no reported cases, Mississippi has 6 cases, Oklahoma had 2 cases, and Texas had 22 reported cases. Of the 22 cases in Texas 11 were in the Dallas area.

Moving to those related to container breeding mosquitoes, for imported cases of Dengue, Arkansas had 1 case, Louisiana had 1 case, Mississippi had no reported cases, Oklahoma had a case, and Texas had 16 cases. There were no reported cases of locally transmitted Dengue in the region.

As for CHIKV, Texas was the only state in the region to have any reported cases, there were 6 cases, and all were imported.

Finally, we have Zika. Arkansas reported 5 cases, Louisiana reported 9 cases, Mississippi reported 14 cases, Oklahoma reported 13 cases, and Texas reported 89. All of those cases were imported.

The area is actively watching for the beginning of locally transmitted cases of Zika. Texas and Louisiana have action plans in place, and Arkansas is developing one quickly.

TMCA and LMCA are making plans for their annual meetings in the Fall. TMCA will hold its annual meeting in Corpus Christi at the Embassy Suites on October 19 and 20. LMCA will hold their annual meeting in Baton Rouge at The Crown Plaza on December 6-8.

Finally, in a meeting in Arkansas for the purpose of developing a Zika plan, there were strong discussions about the need to establish a state-wide mosquito control association like LMCA and TMCA. Let's hope those discussions bear fruit.

Richard Duhrkopf
Associate Professor of Biology

Success in legislative advocacy and regulatory reform (L&R) is not instantaneous. We have overcome some large obstacles in the last year, but there is a lot of ground to cover so I’ve organized this report using position papers new and old. I can't say thank you enough to the AMCA Board of Directors and committee members for recognizing L&R as a priority, to the sustaining members for providing financial support, and to the members that communicate with their lawmakers and attend the Washington Conference.

The secret to our success is staying involved, and making sure that mosquito control professionals have a “seat at the table” when precedent setting discussions are taking place. It is important that we make ourselves available to the regulatory agencies in order to provide insight into the real-world application of mosquito control techniques. Mosquito control programs must stay up to date on regulations, set a good example by closely following those regulations, and remain as transparent in their operations as possible.

Endangered Species Act Considerations and Mosquito Control Programs

Issue: Decisions on how pesticides should be used near sensitive or listed species are not being developed in a transparent manner based upon sound science. Click here for the 2015 position paper...

In April 2016, the Environmental Protection Agency (EPA) released a document for public comment titled “Draft Biological Evaluations: Chlorpyrifos, Diazinon, and Malathion Registration Review” as part of the agency's obligation under section 7 of the Endangered
Species Act to ensure that each pesticide’s registration is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat. These pesticides are the first to go through the new registration review process, but all our products will be examined in the near future, so we need to make sure the models, inputs, and the entire process is realistic and feasible.

During this review the EPA decided that mosquito adulticides are presumed to overlap with all of the listed species ranges and critical habitats because the labels allow spraying anywhere in the United States. As a result the EPA determined that chlorpyrifos and malathion are Likely to Adversely Affect 97% of listed species and 99% of critical habitats. This is a draft assessment that is subject to change. In order to refine the process, the EPA held a stakeholder workshop on June 29th and 30th; mosquito control interests were represented by Karl Malamud-Roam from the IR-4 Program.

**FEDERAL FUNDING NEEDED TO SUPPORT VECTOR CONTROL TOOLBOX**

**Issue:** With the emergence and spread of the Zika virus in the western hemisphere on the heels of diseases such as dengue fever, West Nile virus and chikungunya, it is prudent to increase a sustainable, nationwide capacity for the surveillance and control of their mosquito vectors. [Click here for more.]

During the 2016 AMCA Washington Conference we emphasized the need for a wide array of vector control tools to combat existing and emerging threats. We asked Congress for federal funding to maintain registrations for existing chemistries and developing new tools. Chlorpyrifos, one of only 3 organophosphates labeled for use in mosquito control, is currently being reviewed and was in danger of losing uses on drops. Recently, the Justice Department advised the 9th Circuit Court of Appeals that EPA requires additional time to review chlorpyrifos tolerances, potentially pushing any final decisions to June of 2017.

**EPIDEMIOLOGY AND LABORATORY CAPACITY GRANTS FOR MOSQUITO-BORNE DISEASE SURVEILLANCE**

**Issue:** Reduced federal funding is crippling the capabilities of state mosquito-borne disease monitoring and response programs. [Click here for the 2015 position paper.]

As an interim step in addressing the spread of the Zika disease, the Centers for Disease Control has redirected nearly $600 million in unspent Ebola funds to vector-borne disease prevention. In the interest of understanding how effectively those funds are being used for mosquito control and surveillance activities, the AMCA recently sent out a quick survey. If you have yet to respond; follow this link: [https://www.surveymonkey.com/r/XSRWJNL](https://www.surveymonkey.com/r/XSRWJNL)

The AMCA will use the results of this survey to continue to promote an increase in the annual budget for the CDC’s Vector-Borne Disease Division in anticipation that a greater percentage of ELC grant money will pass through the state health departments to mosquito control programs.

**POLLINATOR PROTECTIONS AND MOSQUITO CONTROL**

**Issue:** The American Mosquito Control Association (AMCA) appreciates the vital role pollinating insects play in the availability of many agricultural products and fully supports science-based efforts to ensure pollinator populations are not adversely affected by pesticide applications designed to protect public health. [Click here for more.]

The attention surrounding pollinator protection has likely led to increased public relations efforts for many of you. There are tools available to you. New, soon to be published, research by Kristen Healy in Louisiana has led me to recommend beekeepers place their hives at least 250 ft. from the road and orient hives away from the direction of the spray.

An article, published in Nature Communications in May 2016, found pyrethroid residues on pollen samples. http://dx.doi.org/10.1038/ncomms11629. The AMCA responded with the following letter, clarifying that no adult mosquito control applications made by the surrounding municipalities during the duration of the study (summer of 2011). [Click here for letter]

**UNMANNED AIRCRAFT SYSTEMS IN THE VECTOR CONTROL INDUSTRY**

**Issue:** Unmanned Aerial Systems (UAS) – better known as drones - for use in the vector control industry provide numerous efficacies, advantages and safety. [Click here for the 2015 Position Paper]

The FAA published a final rule concerning the use of commercial drones which will be effective August 29, 2016. This regulation will allow mosquito control programs to use unmanned aircraft for surveillance (not control) without a pilot’s license, however you will need a remote pilot certificate.

**CLEAN WATER ACT NPDES PERMIT IMPACTS ON MOSQUITO CONTROL PROGRAMS**

**Issue:** Mosquito Control Programs (MCPs) are required to have NPDES permits under the Clean Water Act (CWA) for mosquito control pesticide applications occurring over, near, or in waters of the US. These permits are redundant, since pesticide product use has already been reviewed and approved by the EPA during the registration and labeling process. Furthermore, the failure to obtain or operate in accordance with a NPDES permit exposes MCPs to substantial CWA penalties, including Citizen Suit litigation. These NPDES permit requirements provide little or no environmental benefit, and can have a chilling effect on the ability of MCPs to protect the public from mosquitoes and mosquito-borne diseases, such as West Nile virus, dengue, Chikungunya and Zika virus. [Click here for more.]
Legislation aimed at streamlining pesticide reporting for mosquito control passed the House for the 3rd time this session. The language of the NPDES bill, HR 897, was added to a larger package that included federal funding to respond to the Zika threat. That bill is the subject of a political debate that has not been resolved as of the date this article was written.

**LOBSTER STUDY IN LONG ISLAND SOUND**

Long Island Sound lobsters made a lot of headlines when pesticides were to blame for their demise, but you probably didn’t hear the rest of the story. A study released in April 2016 says no traces of pesticides were found in lobsters collected in Long Island Sound in late 2014, supporting the theory that elevated water temperatures may be the culprit in the lobster decline in that area.

The results of this study confirm that there were flaws in the 2012 testing by the University of Connecticut in which lobsters in the Northeast tested positive for pesticides, leading to restriction on the use of mosquito control pesticides along the coast. Whether or not the pesticide restrictions will be lifted in light of this new evidence is yet to be determined.

**MOSQUITO CONTROL ON FEDERAL LANDS**

**Issue:** Federal agencies need to better accommodate mosquito control activities on their lands, as identified and performed by local mosquito control programs. [Related Position Paper](#)

During the final Wednesday morning session of our recent Washington Conference, we heard from Cindy Hall, US Fish and Wildlife Service National IPM Coordinator, regarding a draft handbook the Service is putting together for refuge managers concerning mosquito control.

On April 22, 2016 a draft of the handbook was sent to USFWS Regional Directors and their regional offices for review and comment, with input due back to the Service's Division of Natural Resources and Conservation Planning (DNRCP) headquarters by May 31, 2016.

After review and editing, the handbook will be sent to the USFWS Director's Office for final sign-off. This is only an internal guidance document and not policy, therefore there will not be a formal comment period. Hopefully our many years of working with the USFWS has instilled confidence that our actions support their mission as well as our own.
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