Greetings Everyone! Summer has come upon us fast and furious. NASA reported June 2012 was the hottest ever recorded, but you don’t have to tell that to us mosquito professionals. We know by the number and diversity of species, especially the ones we typically do not see until mid to late summer.

Unfortunately, the mild, wet winter coupled with an equally wet and very warm spring has attributed to arboviral disease rearing its ugly head in numbers not seen since 2009 and 2005. Mosquito pools and sentinel chickens, mainly in the Tidewater area, have tested positive for EEE in record numbers. WNV had an early showing in Fairfax County and has joined EEE in Tidewater but in much lower numbers.

I would like to thank Caleb Stitely and Dr. David Gaines for their diligence in obtaining the proclamation supported by Governor McDonnell recognizing June 24-30 as Mosquito Control Awareness Week. Many districts participated by conducting community outreach programs highlighted in this newsletter.

I would also like to thank Randy Buchanan, legislative committee chair, for his continued involvement with the ongoing legislative issues that impact mosquito control in Virginia. We appreciate his commitment to keep us well informed. Recently, the Pesticide General Permit Reissuance Technical Advisory Committee was formed consisting of individuals from varying entities in Virginia. Randy Buchanan and Lane Carr- alternate (Henrico County), Charles Abadam (Suffolk), and Joe Simmons (Chesapeake) joined this committee on behalf of the mosquito control districts in Virginia. Thanks to all four individuals for joining to insure mosquito control has a voice in the permitting issues facing our industry.

Education programs were not lacking this spring in Virginia. Fairfax County conducted a two-day tick surveillance course in April. The VMCA, for the second year, sponsored a free adult mosquito identification course, held May 16 and 17 and taught by the combined efforts of mosquito biologists from the Tidewater area. Attendance was well received by both courses. Given our current economic status, it is nice to see support of educational endeavors. I encourage everyone to attend or lend your time and expertise to allow these important courses to continue.

Our 2013 Annual Meeting will be held February 6-8 at the Crowne Plaza Hampton Marina. The hotel is located adjacent to the marina and the Virginia Air and Space Museum. A short walk will take you to various restaurants and quaint shops. I look forward to seeing everyone at this awesome venue! I want to thank my hotel committee chairs, Lane Carr and Jennifer Welch, for all their hard work in securing a great location. It takes constant correspondence and attention to detail when reading through contracts from several hotels to ensure all the needs of the VMCA (see Lisa, page 2).
Announcements

Upcoming meetings

60th Annual Meeting of the Entomological Society of America
November 10-14, 2012
Knoxville, TN

61st Annual Meeting of the American Society for Tropical Medicine & Hygiene
November 11-15, 2012
Atlanta, GA

66th Annual Meeting of the Virginia Mosquito Control Association
February 6-8, 2013
Hampton, VA

38th Annual Conference of the Mid-Atlantic Mosquito Control Association
March 13-15, 2013
Columbia, SC

79th Annual Meeting of the American Mosquito Control Association
February 24-28, 2013
Atlantic City, NJ

(Lisa, from page 1)

are met in order generate a smooth and enjoyable meeting for all. With the 2013 meeting secure, the committee is working diligently for another great location in 2014. I hope to have exciting news on this venue real soon!

Please get the gears turning and start thinking of possible presentation topics for the 2013 Annual Meeting. Remember pictures tell a better story, so get those cameras out and start clicking! Joe Simmons, annual meeting program chair, will be sending out reminders in the next few months.

Everyone have a great summer, and happy counting!
National Pollution Discharge Elimination System Permit Update

Legislative efforts to correct co-jurisdictional regulations regarding pesticide applications to Waters of the United States did not make it out of the Senate as an amendment to the Farm Bill. Excerpts from the National Association of State Departments of Agriculture News stated “An amendment from Sen. Kay Hagan (D-NC) and Michael Crapo (R-ID), which would clarify that Clean Water Act NPDES permits are not needed for FIFRA-compliant pesticide applications to water was not included in the agreement, despite widespread support from Senators on both sides of the aisle.”

With that said, I am sure that this fight is not over and please keep this issue in mind when you are in the process of electing Governments Officials.

June 28, 2012, the Virginia Department of Environmental Quality held its first VPDES, Pesticide General Permit, Technical Advisory Committee (TAC) meeting for the reissuance of our current permit which expires in 2013. No significant changes were discussed. A few points of clarification and minor changes for the sake of consistency were recommended by the TAC. There will be another meeting held August 23, 2012 to finalize the draft reissuance permit. Once approved by the VDEQ Water Control Board, this permit will be valid for 5 years. Please note that discussions were held to try and have all record keeping and adverse incident reporting timeframes mirror our current VDACS pesticide regulations but VDEQ VPDES general permit regulations for all VPDES permits currently mandate the differences.

Submitted by Randy B. Buchanan
Virginia Mosquito Control Association
Ad hoc Legislative Committee Chair

What’s that?

VMCA organizational mailing address
Make sure you send all forms to the proper address.
Virginia Mosquito Control Association
Penelope Smelser, Secretary/Treasurer
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Norfolk, VA 23509
Phone (757) 683-8662
Email Penelope.smelser@norfolk.gov

Answer on page 8.
Jailhouse Menace

The jail cells in the Navajo County Courthouse were put in place in 1898 when it was built but have not held anyone against their own will for some forty years. The stairs to the basement are stone and lead down through a barred entrance to an anteroom—a small area no more that 6 feet by 12 feet that may have served as a secured exercise area. Here, walls were metal or plastered stone and painted a very pale green that had faded over time, just as the hopes of the inhabitants must have faded with every day, week, month and year they were here. Even now, the air still smells of human misery.

Without air conditioning, the cells would easily reach 100 degrees in spite of the fact that the jail was in the basement. The worst heat would have been in the early evening, just before supper, as the heat gain in the old two-story courthouse in the center of Holbrook, AZ, peaked a few hours after the high for the day outside. Yet the heavy iron bars seemed cold to the touch in spite of the heat.

The single 60-watt light bulb in the caged receptacle in the ceiling of the anteroom was the only light for the cells in the jail. The light wasn’t enough to allow reading, but, combined with the sounds of transistor radios, the whines, moans and other sounds emanating from cellmates and adjacent cells, was enough to prevent the possibility of an escape to sleep.

This is the basement of the Navajo County Courthouse-county lock up, unused for almost four decades. It was dry, dusty and hot. It smelled of sweat, urine, cigarette smoke and their butts ground out on a dust covered concrete floor. It must have been a horrible place to be. It was hot as hell during the day and, when the surrounding desert yielded the summer’s heat when the sun fell, bitter cold at night.

Remarkably, in the midst of this dreary dungeon, there were markings on the walls—beautiful markings. Charcoal most likely or pencil, hard to tell but great work nonetheless. No tools would be allowed in the jail, no canvas, easels or paintbrushes. Their canvases were the solid sheet iron walls of the jail or the stone walls that had been plastered and painted. No telling what the offender that drew these beautiful depictions did to find himself down here, but you can tell from the etchings what was on the minds of those imprisoned.....The Virgin Mary, Jesus, Geronimo, a beautiful nameless American Indian, ....and a large-very large female mosquito.

The light and carbon dioxide escaping the screenless barred opening would have been enough of a roadmap so that she could find them. She only had one goal—the blood meal that she required to produce a new batch of eggs, more progeny to dispense her discomfort, her disease and her misery for generations to come. She was a constant presence.

She probably had a Latin name, but those she visited did not research it, nor did they care to remember it. She came in the night, was a poor conversationalist and sought only to use them in her quest for survival. She was relentless. Silent in the night and
stealth in her touch, she poked and prodded until she took what she needed to complete the cycle. In the appointed rooms with polished floors above their pens, there was enough light to keep her away during the day. There were also window air conditioners that provided less humidity and relief from the humid darkness that she sought. Not down here.... No, here she would visit at her own choice of time. Seeking....always seeking the human warmth that she knew would sustain her.

In the night her visitors would awake to find themselves clawing and scratching at her handiwork, frustrated that they could not stop her. In their nights they are alone, and they remained vulnerable since at some point they must sleep but yet she would not.

When they awoke in the early hours before dawn, they are reminded of her frequent visits by the scars and the opened wounds where they scratched themselves to the point of bleeding. As her saliva was pumped into their veins to allow her to thin their blood so that she could feed, so too was a small particle of life that could change the course of their existence. A virus much smaller than the eye could see had been introduced to them as they slept. A fate powerful enough to make the body change in ways unimaginable was now within them.

In a few weeks time, the skin seems cold to the touch but the fever inside the body feels as if it is fed by the fires of hell. Bones ache to the point that they feel as though they have broken when bodily movement to make such a thing happen is seemingly impossible. Sweat drips down like hot lava from a volcano of headaches past the forehead and stings into eyes that are already bloodshot from fever.

In the ensuing days, tremors will rack the body and the cries out to the jailers are met with obscenities as all hope for some respite from the pain, the headaches, the fever, chills and the nausea are met with no relief. Over a few weeks time in late summer through September three are removed never to return and one is returned but is clearly unlike the man that left for the infirmary some weeks before.

Her depiction on the wall, accurate in detail, proves that she was a constant but unwelcome visitor in their lives.

Written and submitted by Peter H. Connelly
Recap of the VMCA Mosquito ID Course

The VMCA sponsored a free adult mosquito identification course, for the second time, held May 16 and 17, 2012. The course was once again taught by the combined efforts of several mosquito district biologists, including Tim DuBois, Jay Kiser, Karen Akaratovic, Jennifer Pierce, Penny Smelser, Dreda Symonds, and Lisa Wagenbrenner. Their expertise and time were greatly appreciated and contributed to a successful course. The course consisted of 18 participants.

The VMCA thanks Doug Hill from Nikon for providing the class with a couple of nice microscopes. Suffolk Mosquito Control also provided a projector and microscope combination to allow for live viewing of the specimens. The VMCA would also like to thank Chesapeake Mosquito Control Commission for the use of their facility located at 900 Hollowell Lane.

Surveys were provided to the participants and 11 were returned. Each parameter received a total vote count of 11 (consisting of #of votes for excellent, good, fair, and poor).
Dare Elementary 3rd grade student Gianina Cragg holds the mosquito awareness and prevention poster she made, which won the York County Mosquito Beater 2012 poster contest.

The yearly contest is the culmination of county staff’s outreach efforts to teach elementary students about mosquitoes and how to prevent them from breeding and biting. After learning things like where mosquitoes breed, why female mosquitoes need blood, and how to camouflage themselves using loose clothing and bug spray to avoid mosquito bites, students are encouraged to participate in a poster contest, using their creativity to portray the lessons they learned.

A $25 gift card from Barnes & Noble was awarded to one poster winner from each school. Gianina was chosen as the overall winner from all schools and was presented with an additional $25 gift certificate. Gianina’s poster was selected out of 200 posters completed and submitted by county third-graders this year.

York County’s Mosquito Awareness & Prevention display. Both libraries in York County have displays set up during Mosquito Awareness Week in June.
York County’s suggestions for mosquito control were recently included in the summer edition of York County’s Citizen News.

Mosquito Control: Frequently Asked Questions

The mosquito shown in the picture is the Asian Tiger mosquito. This mosquito has a potential to carry the West Nile Virus disease and is only found breeding in containers with stagnant water. Don’t give the Asian Tiger mosquito the change to bite you or your neighbors - every week simply dump out water found in containers in your yard. It’s also important to eliminate unnecessary water-holding containers such as tires, large cans, and bottles. Cover rain barrels with screening and be sure to drain, cover, or biologically treat an unused backyard swimming pool. Be a good neighbor and do your part to help fight the bite!

Mosquito Control FAQs

Q: What can I do to prevent mosquitoes from biting me?
A: Wear long, loose, and light colored clothing along with a repellent containing DEET.

Q: Does the county have a total approach to mosquito control?
A: Yes, there is an integrated mosquito control program in place, which greatly reduces the annoyance. The program’s cornerstone is a combination of surveillance, source reduction, biological application, the stocking of mosquito fish, and judicious chemical treatments. It’s a mosquito prevention process.

Q: What determines if and when an area is sprayed?
A: Surveillance data, mosquito monitor trap reporting, and the number of calls we receive from a specific location or neighborhood are the determining factors. It’s important to remember that spraying is not performed automatically but is based on an evident mosquito problem. It’s important that everyone be aware that there’s no such thing as a mosquito-free environment.

Q: How can I find out when our area will be sprayed?
A: Call the Mosquito Spray Hotline - 890-3793 - after 3:30 p.m., Monday through Friday, to find out if spraying will occur that day. Spraying usually starts at 8 p.m. (weather permitting) when most mosquitoes are out. Spraying for the Asian Tiger mosquito cannot occur during the day.

Q: Can I request a special spray?
A: Yes. Call 890-3790 two weeks before your event. The fee is $40.

Q: How can I request NOT to be ground sprayed?
A: Call 890-3790 or e-mail gallagher@yorkcounty.gov and leave your name, address, and telephone number.

Q: Will aerial sprays be announced?
A: Notification of an aerial spray is made via the local news, the mosquito spray hotline, and through the county’s e-mail subscription list (sign up via Mosquito Control’s website - www.yorkcounty.gov/mosquitocontrol).

Submitted by Tom Gallagher

What’s that? Answer

That is a mosquito taking a glancing blow from a raindrop. The entire video may be seen here. The results were published in an article entitled “Mosquitoes survive raindrop collisions by virtue of their low mass” in the Proceedings of the National Academy of Sciences. (doi: 10.1073/pnas.1205446109; subscription required).
Things are Buzzing in Fairfax County

We held our second Tick Surveillance Course in April, 2012, and we had 20 participants from various local, state and federal agencies as well as a few graduate students (picture below). The two-day course was packed with information on tick biology, tick surveillance, tick management, tick-borne diseases, and lab and field work.

Week 22 arrived and so did our first WNV positives. A positive at week 22 seems to be a byproduct of the warm winter and spring that we all enjoyed. We are not certain if this early positive is a sign of things to come later this summer, however our infection rate is below 1/1,000.

In addition to the early mosquito season, ticks have been out and about in our community. Tick drags are robust and traps are loaded with ticks. The Tick I.D. service has been busier than ever and we have had twice as many ticks this year when compared to this time in 2011. We have people here almost every day seeking help with tick problems.

The Fairfax County Board of Supervisors has shown their continued interest in and support of what we do with two of their recent proclamations: Lyme Disease Awareness Month in May and Mosquito Control Awareness Week in June.

The summer staff is here and trapping has been keeping everyone busy. We scaled back surveillance efforts a little this year but we are still setting out mosquito traps at around 70 locations each week and supplement this effort with a BG trap route and an ovi-trap route. We are collecting ticks in support of the County’s 4-Poster Deer Treatment Station pilot project and we continue to monitor the population of *Amblyomma maculatum* that was identified in 2010. We have identified a second area that may be housing another population of the Gulf Coast tick.
The Fairfax County Health Department Lab began testing our mosquito pools for WNV in their new PCR lab this season. At the end of June, a new 96-well robot was installed in the lab. This new tool will automate much of the sample preparation and will allow the lab to process a larger number of samples.

In an effort to control the Gulf Coast Tick from spreading into the County, staff has been doing extensive surveillance of a former landfill site before and after treatments. The group is prepared to meet the challenge of controlling this potential health menace. Pictured at right is the 2012 team.

The outreach and education portion of the program is rolling along, equipped with our new 2012-2013 Fight the Bite calendar, a new story book, and two new activity books (pictured below). Area residents are excited about our new offerings. Carl Sivertsen has been filling up the calendar with community events for the season.

Fairfax gossip: Jorge Arias is back to work and is doing fine, Josh Smith got engaged and is now married, and Carl Sivertsen has a wedding planned for August 3, 2012. John Orr is busy working on his PhD and hopes to be done soon; according to John, it won’t be soon enough. Pablo Quiñónez just landed a job in the Consumer Protection Program and will be leaving us.
From *The Skeeter* Archives

LANGLEY FIELD, PERTURBANS, AND DDT, OH MY!

In our last *Skeeter*, we looked at the official announcement of the VMCA and the beginning of the year for the newly established commissions. This edition will peek into the headlines of the monthly publications that cover June, July, and August of 1947. While the commission reports seem to tell a normal to dry year, some interesting headlines tell of scenarios we still face today, while others tell a story that seems to be an eerie glimpse into the future. The most common theme in all the commission reports was the praises of DDT.

Submitted by Tim DuBois.

Airplane Spraying Around Langley Field

In late May, the first aerial spray flight from Langley Field affected the newly appointed commissions. The first flight was a successful one, spraying Langley Field, York County and Elizabeth City County with DDT. Property owners had a favorable view on the project and signed off with no obstacles. Pre- and Post-Inspections of the salt marshes show the flight was a success. Three more dates have been chosen for the first year.

North Virginia Beach and *Mansonia perturbans*

The northern end of the Virginia Beach-Princess Anne County Mosquito Control District has been subjected to a very large influx of *Mansonia perturbans*. Breeding places have been located in the Seashore State Park. The Commission has not received permission to do any work in the park, so the mosquitoes are allowed to emerge. Flights of *Mansonia perturbans* generally last until the 4th of July, this year they are extremely bad and have lingered for much longer. Until permission can be secured to drain or treat the breeding place, the District will continue to have this early Summer threat.

Airplane Spraying at Langley Misses the Boat

A second spraying of the salt marshes around Langley Field was made during late June. The planned spray was postponed a week due to weather. An inspection of the marshes revealed that the mosquitoes were present on the planned date, but had moved on into the neighborhoods by the time the weather cooperated.

“Common Glory” A Success, So Far As Mosquitoes Are Concerned

The Richmond Times Dispatch, in reviewing the symphonic drama “Common Glory” had the following to say, “Best of all, the entire area had been sprayed with DDT solution and, though the frogs croak in the nearby water and the night birds twitter until the lights go up, there’s not a fly, gnat, or mosquito within a mile of the stage.” This situation is not an act of God, but is the result of the good work done by the Williamsburg Mosquito Control Commission.

New Counties Interested in Mosquito Control

Franklin and Arlington County officials have made it known to the organization that they are interested in mosquito control. Franklin is setting a trap in town to decide whether an efficient back-yard inspector would suffice, or if several acres of swamps along the Black Water River would need to be treated.

Airplane Spraying

Another spraying of the salt marshes around Langley Field was accomplished by the Army in late July. This spraying caught the mosquitoes in the marsh and a very good kill was obtained. The area around Messic was left out on this spraying because some people claimed the DDT had killed some crabs. It is doubtful if the claim is true. At any rate, the residents of Messic are requesting that they be included in the next spraying because the mosquitoes are so bad.

Navy and Norfolk Cooperate to Control Mosquitoes

A meeting of the minds took place in Norfolk in late August to discuss a cooperative strategy to control *Aedes sollicitans* near the hydraulic fill in Willoughby Bay. It was decided that an inspection be done the following day between all interested parties. Upon inspection, heavy breeding, as well as adults on the wing, were found near the fill. It developed that neither the Air Station nor the Naval Base were equipped to handle the situation, and through the efforts of the Navy, a plane equipped for spraying DDT was dispatched from Florida. Results were satisfactory.

Army Sprays Marshes With Airplane

In early September, the Army sprayed the salt marshes around Langley Field for the fourth and final time this year. The Army has worked out a very effective method of signaling to the plane by using Smoke Bombs put out 100 yards apart by land crews which clearly mark the pattern to be flown by the plane.
2012 Sustaining Members

The VMCA gratefully acknowledges the support of the following sustaining members for 2012. Without their generous contributions, much of what we do would not be possible. Please do not hesitate to contact them. They are here to help you!

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Summit Chemical Co.
Virginia Mosquito Control Organizations & Other Resources

As a result of revisions to the VMCA By-Laws, the organizational member category was eliminated. In order to facilitate communication among mosquito control districts, those that have traditionally been organizational members are listed below along with their websites. If there are other sites that should be listed, please submit them to the editor.

Virginia Mosquito Control Organizations

Boykins, Town of
Chesapeake Mosquito Control Commission
Emporia, City of
Fairfax County Health Department
Fort Eustis
Gloucester County
Hampton, City of
Henrico County
Newport News, City of
Richmond, City of
Suffolk, City of
US Air Force / Langley Air Force Base
York County

Health Information

Virginia Department of Health
Centers for Disease Control & Prevention

Other Mosquito Control Organizations

Mid-Atlantic Mosquito Control Association
American Mosquito Control Association

AMCA/Fairfax County Education and Outreach Materials

Not a member? Join us at:
http://www.mosquito-va.org/membership.htm
Annual dues for 2012 are:
Regular member $15
Associate member $10
Student member $10
Sustaining member $400

Submissions wanted!

Have something you’d like to include in the next issue of The Skeeter? We are looking for organizational updates, operational news, education and other outreach activities, pictures, stories, or other vaguely vector-related items to include in an upcoming newsletter.

Please send all items to Justin Anderson at janderson152@radford.edu.

The deadline for inclusion in the next issue is: September 30, 2012.
Take the time to volunteer on a committee. An active membership makes for a stronger organization. Contact anyone on the Board to participate.

2011 Virginia Mosquito Control Association Officers

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The Skeeter is the official publication of the Virginia Mosquito Control Association.

The VMCA membership is encouraged to submit articles, reviews, and any other interesting facts or tidbits for publication. Submissions can be sent to Justin Anderson at skeeter@radford.edu.

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