Station News

The Connecticut Agricultural Experiment Station
Volume 8 Issue 4 April 2018

The mission of The Connecticut Agricultural Experiment Station is to develop, advance, and disseminate scientific knowledge, improve agricultural productivity and environmental quality, protect plants, and enhance human health and well-being through research for the benefit of Connecticut residents and the nation. Seeking solutions across a variety of disciplines for the benefit of urban, suburban, and rural communities, Station scientists remain committed to "Putting Science to Work for Society", a motto as relevant today as it was at our founding in 1875.

CAES

The Connecticut Agricultural Experiment Station

Putting Science to Work for Society since 1875

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ADMINISTRATION

DR. THEODORE ANDREADIS participated in the spring meeting of the Northeastern Regional Association of State Agricultural Experiment Station Directors held in Arlington, VA (March 5-7); attended the joint UConn/CAES collaborative meeting held at the University of CT in Storrs (March 12); attended a breakfast meeting with U.S. Senator Chris Murphy held in Cheshire (March 19); presented a keynote address *Reflections on the Ecology and Epidemiology of Mosquito-Borne Viruses in Connecticut: An Analysis from 20 Years of Research and Surveillance* at the 15th Arbovirus Surveillance and Mosquito Control Workshop; and participated as Administrative Advisor in the annual meeting of Multi-State Project, NE-1443, *Biology, Ecology & Management of Emerging Disease* held in St. Augustine, FL (March 20-22).

ANALYTICAL CHEMISTRY

DR. JASON C. WHITE attended the Center for Sustainable Nanotechnology "All Hands" meeting at Johns Hopkins University in Baltimore, Maryland, and gave a presentation entitled "Nano-enabled agriculture: A tutorial" (65 attendees) (March 4-6); along with **DR. BRIAN EITZER, DR. WALTER KROL, MS. TERRI ARSENAULT, MR. CRAIG MUSANTE** and **MS. KITTY PRAPAYOTIN-RIVEROS,** participated in the monthly FDA FERN cCAP teleconference call (March 8); attended the joint UConn/CAES collaborative meeting at the University of Connecticut in Storrs (March 12); participated in the weekly Center for Sustainable Nanotechnology WebEx (March 14, 21); participated in an organizational conference call with Dr. Quan Zeng and others as part of Dr. Zeng's newly awarded USDA AFRI grant (March 15); met with SCSU undergraduate Eleni Manesiotis concerning a potential internship in the Department of Analytical Chemistry (March 16); participated by WebEx in the annual Editorial Advisory Board meeting of *Environmental Science & Technology* and *Environmental Science & Technology Letters* (March 19); remotely gave a presentation entitled "Nanoparticles in the environment" at the 9th International IPM Symposium in Baltimore, MD (25 attendees) (March 21); spoke by phone with UMass Amherst graduate student Ms. Huiyuan Guo concerning collaborative research projects (March 22); attended the Ph.D. defense of Dr. Aidee Illya Medino Velo at the University of Texas-El Paso (March 28-29); and spoke by phone with Prof. Phillip Demokritou of the Harvard University T.H. Chan School of Public Health regarding collaborative research projects (March 30).

DR. BRIAN EITZER was a participant in the North American Chemical Residue Workshop's organizing committee phone call (March 8); was a judge for the Connecticut Science and Engineering Fair held at Quinnipiac University in Hamden (March 14-15); and attended the annual Animal Feeds Regulatory Program Standards Face-to-Face meeting in Jacksonville, FL (March 20-22).

KITTY PRAPAYOTIN-RIVEROS attended the 2018 Animal Feed Regulatory Program Standards (AFRPS) Face-to-Face Meeting at Jacksonville, Florida and gave a presentation highlighting the process of conducting effective internal audits and of common issues related to internal auditing at (60 attendees) (March 20-22).

Dr. Jason C. White attended the Center for Sustainable Nanotechnology "All Hands" meeting at Johns Hopkins University in Baltimore Maryland (March 4-6).

Dr. Jason C. White attended the Ph.D. defense of Dr. Aidee Illya Medino Velo (center) at the University of Texas-El Paso (March 28-29).

ENTOMOLOGY

DR. KIRBY C. STAFFORD III presented a talk on ticks and tick control at the Scoville Memorial Library in Salisbury (62 attendees) (March 24); and three presentations had to be canceled or postponed due to winter snow storms.

MS. KATHERINE DUGAS attended the CT Christmas Tree Growers Association annual meeting in Middletown (March 3); with Jude Hsiang, staffed a table covering CAES, including Forest Pest information at the Master Gardener Association Annual Symposium held at Connecticut College in New London (March 17) (bags handed out to every attendee contained the CAES gypsy moth document, as well as fact sheets about EAB, winter moth, and spotted lanternfly); gave a small entomology program to 12 Girl Scouts and leaders at the Bethany Public Library (March 28); and gave a brief EAB and gypsy moth update during the CT Tree Wardens Association's 26th annual dinner meeting, held at the Gelston House in East Haddam (March 29).

MR. MARK H. CREIGHTON attended a Bee Talk in Middletown, sponsored by the Connecticut Beekeepers Association. The discussion was on using oxalic acid to control the Varroa mite on honey bees (March 8); the event attracted over 100 beekeepers from the greater Middletown area; spoke to beekeepers at the Portland CT Senior Center on managing colonies coming out of winter (4 local beekeepers attended) (March 25); planned and coordinated a Bee School for High School students here at the Experiment Station (March 26). This event attracted 84 students representing 8 high schools from the greater New Haven area. This event was funded by a USDA Specialty Crop Block Grant under the supervision of the Connecticut Department of Agriculture; and attended the spring meeting of the Connecticut Beekeepers Association here at the Experiment Station. This event was attended by 45 local beekeepers from the greater New Haven area (March 31).

DR. MEGAN LINSKE gave an invited lecture titled "Blacklegged tick reservoir host diversity and abundance impacts on dilution of *Borrelia burgdorferi* in residential and woodland habitats in Connecticut" at the New Jersey Mosquito Control Association annual meeting (200 attendees) (March 15); was elected Secretary of the Northeast Section of the Wildlife Society (March 20); and participated in the Northeast Regional Center for Excellence in Vector-Borne Diseases Trainee Seminar (15 attendees) (March 28).

DR. CHRIS T. MAIER Susan Whalen, Deputy Commissioner of Environmental Conservation, reappointed Chris Maier to the Endangered Species Advisory Committee of DEEP (March 5).

DR. GALE E. RIDGE presented a talk about bed bugs to the Connecticut Park Service personnel in Hamden (62 attendees) (March 1); the New Haven Institute Library opened the ARKʌHIVE exhibit, which included a number of displays and specimens from the CAES insect collection (March 8); spoke at the Yale Child Learning Center to staff about bed bugs (March 12); hosted students from the Stamford Agricultural Science School visiting the insect information office

(March 26); spoke to doctors at the Bridgeport Mental Health Center about bed bugs (42 attendees) (March 27); and spoke at the annual training of health care professionals about bed bugs at Southern Connecticut State University (67 attendees) (March 28).

DR. CLAIRE E. RUTLEDGE taught "Tree conditions laboratory" for the Connecticut Tree Protective Association's Arboriculture 101 class in Wallingford (45 attendees) (March 22).

DR. VICTORIA L. SMITH participated in a meeting of the Yale Biosafety Committee, held at 135 College Street, New Haven (20 participants) (March 15).

DR. KIMBERLY A. STONER presented a workshop, "Integrating Pollinator Habitat into Your Farm" at Organiconn, the NOFA Connecticut winter conference, at Western Connecticut State University (45 attendees) (March 10); participated in a joint meeting between CAES and UConn College of Agriculture to explore possibilities for cooperation in the areas of specialty crops, crop improvement, and integrated pest management, at the University of Connecticut (18 participants from both institutions) (March 12); presented a noon CAES seminar, "Tracking Sources of Pesticides in Pollen" (40 attendees) (March 15); and organized and moderated a symposium, "Pollinator Habitat in Northeastern Landscapes: Diversity, Crop Pollination, and Pesticide Exposure," and presented a talk, "Tracking Sources of Systemic Insecticides Using Trapped Honey Bee Pollen" (35 attendees) (March 19); spoke to a visiting class from the Stamford Regional Agriscience and Technology Center about bees and pesticides (7 attendees, of which 5 were high school students) (March 26); and spoke to the Bee School for High School conference on "Honey Bees vs. Wild Bees" (84 attendees) (March 26), with 75 high school students from the following schools: Lyman Hall, Common Ground, The Sound School, E.O. Smith, West Hill, Nonnewaug, and Bloomfield, and also home schooled kids.

MS. TRACY ZARRILLO participated in a joint meeting between CAES and UConn College of Agriculture to explore possibilities for cooperation in the areas of specialty crops, crop improvement, and integrated pest management, at the University of Connecticut (18 attendees both institutions) (March 12); and organized and led a honey tasting station for a High School conference on beekeeping held in the Jones Auditorium, with 75 high school students from the following schools: Lyman Hall, Common Ground, The Sound School, E.O. Smith, West Hill, Nonnewaug, and Bloomfield, and also home schooled kids (84 attendees) (March 26).

ENVIRONMENTAL SCIENCES

DR. JOSEPH PIGNATELLO co-organized and co-chaired a symposium on carbonaceous materials and gave the talk entitled "Inherent reactivity of chars from model feedstocks, lignin and cellulose: persistent free radicals, reactive oxygen species, and non-radical direct reacting sites" (approx. 30 attendees) in the Division of Environmental Chemistry at the National Meeting of the American Chemical Society, New Orleans, LA (March 21-22); and gave a guest lecture in the Environmental Health course at the University of St. Joseph, West Hartford (approx. 15 students) (March 28).

DR. PHILIP ARMSTRONG served as chair and presented his research at the NE1443: Biology, Ecology, & Management of Emerging Disease Vectors Regional Project Meeting in St. Augustine, FL (30 attendees) (March 22).

MR. GREGORY BUGBEE gave a talk entitled "Connecticut's Invasive Aquatic Plant Problem – The State of the State" at the Connecticut Conference on Natural Resources held at the University of Connecticut, Storrs (approx. 40 attendees) (March 12); gave a talk entitled "Container Gardening Indoors and Out" to the Newtown Town and Country Garden Club (approx. 40 attendees) (March 14); gave a talk entitled "Container Gardening Indoors and Out" as part of the Cheshire Public Library speaker series (approx. 40 attendees) (March 19); spoke on soil testing and invasive aquatic plants to a tour group from The Stamford Regional Agriscience and Technology Center (6 attendees) (March 26); with Summer Stebbins, present the results of CAES IAPP invasive aquatic plant monitoring Lakes Candlewood, Lillinonah, Zoar, and Squantz Pond to the FirstLight Power working group and FirstLight Power Headquarters in New Milford (approx. 12 attendees) (March 29).

DR. GILLIAN EASTWOOD presented a poster entitled "The Potential Ecology of La Crosse Virus in Connecticut" and a talk entitled "Northern Range Expansion of the Asian Tiger Mosquito (*Aedes albopictus*): Analysis of Mosquito Data from Connecticut" at the New Jersey Mosquito Control Association's 105th Annual Meeting, in Atlantic City, NJ (approx. 30 students and 120 other attendees) (March 14-15); and gave a presentation and activity session on mosquitoes—ecology, monitoring techniques, and vector-borne diseases, for the Girl Scouts at Nathan Hale Middle School, Norwalk (14 Girl Scouts) (March 6).

DR. GOUDARZ MOLAEI hosted students and faculty from the Stamford Regional Agriscience and Technology Center at the Tick Testing Laboratory (4 students, 2 teachers) (March 26); and attended the annual meeting and student competition of the Connecticut Entomological Society at the University of Connecticut along with **Dasha Pokutnaya** who gave a talk on her work in the Tick Testing Laboratory that received an award for second-best presentation (approx. 10 faculty and 25 students) (March 30).

MR. JOHN SHEPARD presented information about the Connecticut Arbovirus Surveillance Program to students from the Stamford Regional Agriscience and Technology Center (4 students, 2 teachers) (March 26).

FORESTRY AND HORTICULTURE

DR. JEFFREY S. WARD administered practical and oral examination to arborist candidates for the Connecticut Tree Protection Examining Board (March 9); participated in New England Society of American Foresters Executive Council meeting (March 26); and gave an invited talk titled "Ecology and management of northern red oak in New England - tending prescriptions" at the New England Society of American Foresters' annual meeting in Nashua, NH (150 attendees) (March 27).

DR. ABIGAIL A. MAYNARD showed students of Hamden Hall Country Day School techniques on growing transplants in a greenhouse (3 teachers, 43 students) (March 2, 5, 9, 27); assisted with composting operation at Long Lane Farm in Middletown (March 6, 14); and discussed the New Crops Program to determine areas of collaboration with researchers from the Storrs Agricultural Experiment Station in Storrs (March 12).

DR. SCOTT C. WILLIAMS gave a CAES seminar titled "Tick-borne disease ecology: Concerns for forest and public health alike" in Jones Auditorium (March 28); and was elected President-Elect of the Northeast Section of The Wildlife Society (March 31).

MR. JOSEPH P. BARSKY attended the quarterly meeting of the Connecticut State Consulting Committee for Agricultural Science and Technology Education in Winsted (March 6); and attended the NESAF annual meeting and with **DR. JEFFREY WARD**, presented a research poster on “Influence of crop tree release on black birch growth” in Nashua, NH (25 attendees) (March 26 -29).

PLANT PATHOLOGY AND ECOLOGY

DR. DONALD E. AYLOR was a judge for finalists in the Physical Sciences at the Connecticut Science Fair held at Quinnipiac College in Hamden (18 students participated) (March 15).

DR. WADE ELMER attended the joint meeting between CAES and the University of Connecticut (26 adults) (March 12), and attended the International Integrated Pest Management Meeting in Baltimore, MD and organized the symposium “Nanotechnology and its Increasing Role in IPM” and presented the talk “The role of metal oxide nanoparticle on plant disease” (32 adults attended) (March 19-22).

DR. YONGHAO LI gave a talk titled "Spring and Summer Gardening Tips" at the Cheshire Public Library in Cheshire (32 adults) (March 5); presented "Common Vegetable Diseases and Their Management" at the CT NOFA Winter Conference in Danbury (43 adults) (March 10); talked about common tree diseases for the CTPA Tree Condition class in Wallingford (33 adults) (March 22); and talked about the Plant Disease Information Office to a visiting group of high school students and teachers from the Stamford Regional AgriScience and Technology Center (4 youths and 2 adults) (March 26).

DR. ROBERT E. MARRA presented "Accurately accounting for decay and carbon loss in trees: a novel nondestructive approach using tomography" to the Biology Department of Eastern Connecticut State University (20 adults) (March 2); presented "Fungi of the Forest: Friends and Foes," to the Watertown Garden Club, (30 adults) (March 22); and presented "Accurately accounting for decay and carbon loss in trees: a novel nondestructive approach using tomography" to the Stockbridge School of Agriculture at the University of Massachusetts, Amherst (35 adults) (March 26).

DR. NEIL SCHULTES gave a seminar entitled "Nucleobase Transporters in Plants and Microbes" for the Dept. of Biology, Eastern Connecticut State University, in Willimantic (20 attendees) (March 9); and attended The University of Connecticut, College of Agriculture and CAES joint symposia (26 adults) (March 12).

DR. LINDSAY TRIPLETT was interviewed by Joy Vanderlek for the *Cheshire Citizen*, for an article that appeared in the March 8th issue: https://issuu.com/cheshirecitizen/docs/cheshirecitizen20180308; attended the joint meeting between CAES and the University of Connecticut (26 adults) (March 12); and hosted a tour stop for students from the Stamford Regional AgriScience and Technology Center and presented information about plant disease demonstrated bacteria swimming under a microscope (4 students and 2 adults attended) (March 26).

DR. QUAN ZENG attended the CAES-UConn joint meeting, met colleagues from UConn and CAES, and discussed about future collaboration opportunities (26 adults) (March 12); and hosted high school students from the Stamford Regional AgriScience and Technology Center and gave a lab demonstration of examining plant pathogens using a fluorescence microscope (2 adults, 7 children) (March 26).

VALLEY LABORATORY

DR. RICHARD COWLES presented "Fir genetic improvement project update" for the CT Christmas Tree Growers Association, Middletown (45 attendees) (March 3); lectured on "Arthropod pests of roses" to the CT Rose Association, Plainville (30 attendees) (March 4); co-presented a fruit IPM webinar with Mary Conklin (UConn Cooperative Extension) on "Mating disruption of fruit insects" (March 7); and presented "Real facts about climate change and urban trees: How should we prepare?" for the noon Urban Forestry Today webinar series hosted by Rick Harper (UMass Cooperative Extension) (330 attendees) (March 15).

ROSE HISKES, with Tom Rathier and Yonghao Li, assisted the Connecticut Tree Protective Association arborist certification students at the Tree Conditions Lab in Wallingford (33 attendees) (March 2); and participated in the Symposium Planning Committee meeting of the Connecticut Invasive Plant Working Group in Windsor (March 29).

DR. JAMES LAMONDIA spoke about "Identification and management of boxwood blight" as a part of the 2018 Nursery and Greenhouse Educational seminar hosted by Helena in Ledyard (50 attendees) (March 1); participated in the Connecticut Agricultural Information Council meeting regarding Agriculture Day at the Capital and the Connecticut Outstanding Young Farmer Award in Windsor (March 5); conducted oral exams for candidates for the Connecticut arborist license and participated in the quarterly meeting of the Connecticut Tree Protection Examining Board in New Haven (March 7); spoke to growers about "Identifying, understanding and managing nematode diseases in vegetables" at the CPS Vegetable Growers meeting held in Glastonbury (65 attendees) (March 7); was interviewed about Ag Day at the Capital by Rebecca Eddy for the Dept. of Agriculture Newsletter (March 12); spoke about Integrated Pest Management for the 2018 season at the CT Hop Growers Association Quarterly Meeting in Windsor (15 attendees) (March 15); hosted and chaired the quarterly APS Division Forum conference call meeting (March 20); participated in Agriculture Day at the Capital, speaking about the 2017 Century Farm Award recognizing Kasheta Farms (100 attendees) (March 21); participated in the Connecticut Agricultural Information Council meeting recapping Agriculture Day at the Capital and the Connecticut Outstanding Young Farmer Award in Windsor (March 28); and spoke to Windsor Shade Tobacco growers about management of tobacco pathogens, breeding for resistance and strategies to reduce pesticide residues in shade tobacco wrapper leaves (7 attendees) (March 29).

DEPARTMENTAL RESEARCH UPDATES MARCH 2018

Fauver, J.R., Weger-Lucarelli, J., Fakoli LS 3rd, Bolay K, Bolay FK, Diclaro JW 2nd, **Brackney, D.E.**, Foy BD, Stenglein, M.D., Ebel, G.D., 2018. Xeno-surveillance reflects traditional sampling techniques for the identification of human pathogens: A comparative study in West Africa. *PLoS Neglectd Tropical Diseases,* Mar 21;12(3):e0006348. doi: 10.1371/journal.pntd.0006348. [Epub ahead of print]

Abstract- Novel surveillance strategies are needed to detect the rapid and continuous emergence of infectious disease agents. Ideally, new sampling strategies should be simple to implement, technologically uncomplicated, and applicable to areas where emergence events are known to occur. To this end, xenosurveillance is a technique that makes use of blood collected by hematophagous arthropods to monitor and identify vertebrate pathogens. Mosquitoes are largely ubiquitous animals that often exist in sizable populations. As well, many domestic or peridomestic species of mosquitoes will preferentially take blood-meals from humans, making them a unique and largely untapped reservoir to collect human blood. METHODOLOGY/PRINCIPAL FINDINGS: We sought to take advantage of this phenomenon by systematically collecting blood-fed mosquitoes during a field trail in Northern Liberia to determine whether pathogen sequences from blood engorged mosquitoes accurately mirror those obtained directly from humans. Specifically, blood was collected from humans via finger-stick and by aspirating bloodfed mosquitoes from the inside of houses. Shotgun metagenomic sequencing of RNA and DNA derived from these specimens was performed to detect pathogen sequences. Samples obtained from xenosurveillance and from finger-stick blood collection produced a similar number and quality of reads aligning to two human viruses, GB virus C and hepatitis B virus. This study represents the first systematic comparison between xenosurveillance and more traditional sampling methodologies, while also demonstrating the viability of xenosurveillance as a tool to sample human blood for circulating pathogens.

Kevin, J.D., K.J., C.F. Aoki, **Arango-Velez, A.,** Cancelliere, J., D'Amato, A.W., DiGirolomo, M.F., and Rabaglia, R.J. 2018. Expansion of southern pine beetle into northeastern forests: management and impact of a primary bark beetle in a new region. Journal of Forestry. 116(2): 178-191. doi: 10.1093/jofore/fvx009

Abstract- After more than a decade of damage in pitch pine forests of New Jersey, an unprecedented range expansion of southern pine beetle (SPB), *Dendroctonus frontalis*, has recently occurred with populations established or detected in parts of the northeastern United States. Widespread tree mortality in pitch pine stands has occurred on Long Island, New York, an area previously free of SPB. Tree mortality has also been documented in several small pine stands in Connecticut. Trapping surveys have detected SPB farther north than it had previously been known to exist, with positive trap catches in Connecticut, Massachusetts, and Rhode Island. Integrated pest management plans that consist of preventative silvicultural treatments, landscape prioritization, detection and monitoring, and direct control provide the best opportunity to reduce the effects of SPB in northeastern US pine ecosystems. Most hard pine species present in the region are at risk to SPB, but less

is known about white pine susceptibility. Unmanaged pine barrens are a particular concern, as they provide stand conditions conducive to SPB outbreaks. Infestation suppression implementing cut-and-leave tactics has been used in some areas of Long Island and will continue to be the primary management tool to limit damage from SPB.

Maurer, K.A., Cowles, R. S. and **LaMondia, J. A.** 2018. Sensitivity of *Calonectria pseudonaviculata*, the pathogen of boxwood blight, to strobilurin and demethylation inhibitor fungicides. Journal of Environmental Horticulture 35(4):138–145.

Abstract - *Calonectria pseudonaviculata* (Lombard, Crous, Wingfield & Wingfield) causes a severe blight disease on boxwood known as ''boxwood blight''. Three isolates: 11-9-4a and CTWH1 - wild types from Connecticut landscapes, and FC1 - an isolate of 11-9-4a that was selected for ability to grow on up to 250 lg a.i./ml pyraclostrobin fungicide, were evaluated for sensitivity to nine fungicides belonging to the demethylation inhibitor ([DMI] propiconazole, tebuconazole, triflumizole, myclobutanil, tetraconazole) and strobilurin (pyraclostrobin, azoxystrobin, trifloxystrobin, kresoxim-methyl) groups. The effects of fungicides on mycelial growth and conidial germination were analyzed using in vitro assays. All DMI fungicides strongly inhibited radial growth, but did not prevent conidial germination. Of the strobilurins, only pyraclostrobin inhibited mycelial growth and conidial germination of the 11-9-4a and CTWH1 isolates within label use rates. Pyraclostrobin, kresoxim-methyl, and trifloxystrobin inhibited mycelial growth for 11-9-4a and pyraclostrobin and kresoxim-methyl for CTWH1. All strobilurin fungicides inhibited the conidial germination of 11-9-4a and FC1; only pyraclostrobin affected CTWH1. FC1 and CTWH1 exhibited reduced sensitivity to strobilurin fungicides for mycelial growth. For effective control of mycelial growth and conidial germination, and to reduce the risk of resistance development, fungicides from both FRAC groups should be used and integrated with other best management practices.

Uraki, R., Hastings, A.K., **Gloria-Soria, A.**, Powell, J.R. and Fikrig, E., 2018. Altered vector competence in an experimental mosquito-mouse transmission model of Zika infection. *PLoS Neglected Tropical Diseases*, *12*(3), p.e0006350.

Abstract- Few animal models of Zika virus (ZIKV) infection have incorporated arthropod-borne transmission. Here, we establish an *Aedes aegypti* mosquito model of ZIKV infection of mice, and demonstrate altered vector competency among three strains, (Orlando, ORL, Ho Chi Minh, HCM, and Patilas, PAT). All strains acquired ZIKV in their midguts after a blood meal from infected mice, but ZIKV transmission only occurred in mice fed upon by HCM, and to a lesser extent PAT, but not ORL, mosquitoes. This defect in transmission from ORL or PAT mosquitoes was overcome by intrathoracic injection of ZIKV into mosquito. Genetic analysis revealed significant diversity among these strains, suggesting a genetic basis for differences in ability for mosquito strains to transmit ZIKV. The intrathoracic injection mosquito-mouse transmission model is critical to understanding the influence of mosquitoes on ZIKV transmission, infectivity and pathogenesis in the vertebrate host, and represents a natural transmission route for testing vaccines and therapeutics.

Yang, F., Chan, K., Marek, P.E., **Armstrong, P.M.**, Liu, P., Bova, J.E., Bernick, J.N., McMillan, B.E., Weidlich, B.G., Paulson, S.L., (2018). Cache Valley Virus

in Aedes japonicus japonicas mosquitoes, Appalachian Region, United States. *Emerging Infectious Diseases* 24(3):553-557.

Abstract- We detected Cache Valley virus in *Aedes japonicus*, a widely distributed invasive mosquito species, in an Appalachian forest in the United States. The forest contained abundant white-tailed deer, a major host of the mosquito and virus. Vector competence trials indicated that *Ae. j. japonicus* mosquitoes can transmit this virus in this region.

JOURNAL ARTICLES APPROVED MARCH 2018

Albright, M., R. Johansen, D. Lopez, L. V. Gallegos-Graves, **Blaire Steven**, C. Kuske, and J. Dunbar. Short-term transcriptional response of microbial communities to N-fertilization in pine forest soil. *Applied and Environmental Microbiology*

Correa, Maria A., **Doug E. Brackney**, and **Blaire Steven**. Axenic *Aedes aegypti* develop without live bacteria, but exhibit delayed development and reduced oviposition. *Nature Communications*

Maier, Chris T. Range expansion of the Japanese cedar longhorned beetle, *Callidiellum rufipenne* (Motschulsky) (Coleoptera: Cerambycidae), in Connecticut. *Proceedings of the Entomological Society of Washington*

Maynard, Abigail A. Specialty bell pepper trials 2011, 2012, 2014. *Station Bulletin*

Pokutnaya, D., M. Reza Shirzadi, E. Salari, and **Goudarz Molaei**. Cutaneous leishmaniasis in Iran: a case report of infection during pregnancy, preterm birth, and fetal death. *American Journal of Tropical Medicine and Hygiene*

Zarrillo, Tracy A. and **Kimberly A. Stoner**. The bee fauna of an Atlantic coastal plain tidal marsh community in Southern New England, USA. *Journal of Melittology*

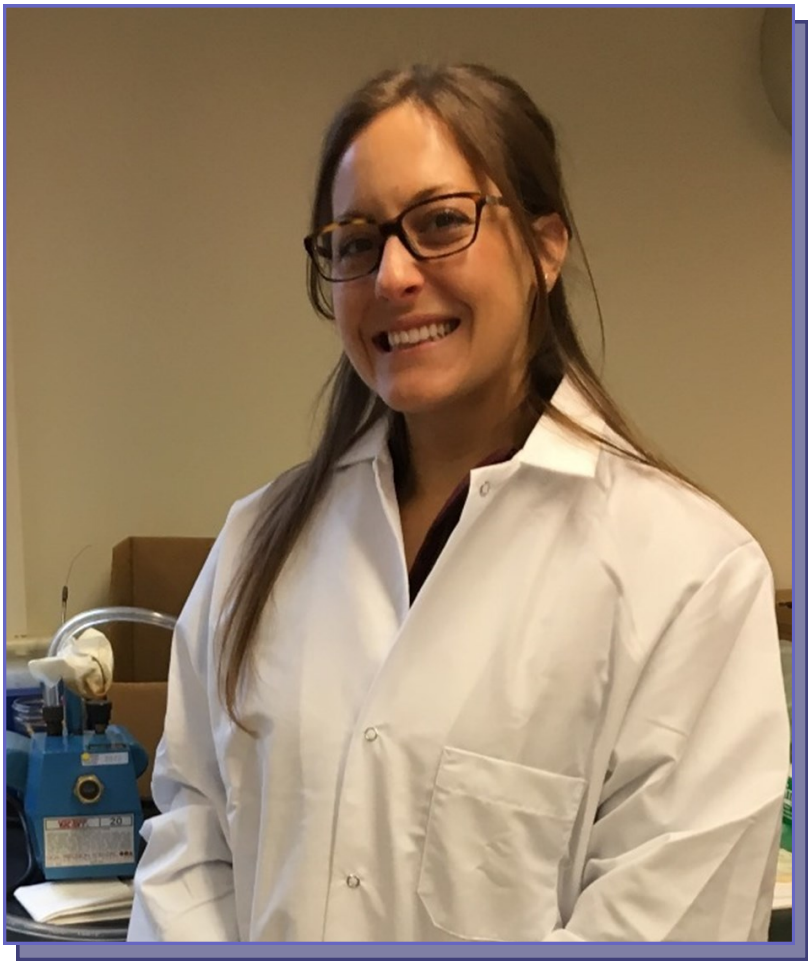
GRISWOLD RESEARCH CENTER

MR. ROBERT DURGY taught a University of Connecticut Master Gardener Program class on vegetables in Norwich (39 attendees) (February 6), in Stamford (26 attendees) (February 12), in New Haven (38 attendees) (February 15), in Vernon (31 attendees) (February 23) and in Torrington (29 attendees) (March 14); taught Math Calculations and Calibration for Pesticide Applicator's Training in West Hartford (36 attendees) (February 20); attended the steering committee meeting for the annual Connecticut Vegetable and Fruit Growers Conference in Vernon (12 attendees) (February 26); and delivered a lecture entitled "The All-America Selections Variety Trials in Vernon" (17 attendees) (March 10).

ARTICLES OF INTEREST MARCH 2018

The department of Plant Pathology & Ecology celebrated **Dr. Quan Zeng**'s birthday with a pineapple upside-down cake made by Regan Huntley, March 16.

Penelope Grace Thiel, granddaughter of **Peter Thiel** and Gay Thiel, born to Alex and Katelyn Thiel on March 3.



Ms. Jacky Pyrch, a undergraduate of the University of Connecticut in the Department of Plant Science and Landscape Architecture, has joined Dr. Wade Elmer's Laboratory as an intern. Jacky is from Monroe, CT and will graduate this spring.

GRANTS RECEIVED MARCH 2018

Mr. Gregory Bugbee received a grant renewal for $2,500 from the Town of Guilford to conduct an aquatic plant post-herbicidal treatment survey of Lake Quonnipaug (March 23).

CAES

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Putting Science to Work for Society since 1875

The Connecticut Agricultural Experiment Station

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Putting Science to Work for Society.

Main Laboratories, New Haven

Lockwood Farm, Hamden

Griswold Research Center, Griswold

Valley Laboratory, Windsor

The Connecticut Agricultural Experiment Station

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Station News was prepared and edited by Dr. Theodore G. Andreadis, Ms. Vickie Bomba-Lewandoski, Ms. Sandra Carney, and Ms. Brandi Marks.

Volume 8 Issue 4
April 2018

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