

**THE 14TH ARBOVIRUS SURVEILLANCE
AND MOSQUITO CONTROL WORKSHOP IN CONJUNCTION WITH THE
NE1443 REGIONAL PROJECT'S 3RD ANNUAL MEETING AND THE FMCA'S NE
REGIONAL MEETING
(20 CEU's)**

Sponsored by AMCD, USDA/CMAVE, & NE 1443 Regional Project Committee
Being held at AMCD's New Base Station Complex at:
120 EOC Drive, St. Augustine, Florida, 32092
March 28-30, 2017
www.amcdsjc.org

THE PROGRAM

MONDAY, MARCH 27, 2017

10:00AM FLORIDA ENTOMOLOGY SOCIETY 'S BOARD MEETING IN AMCD'S
CONFERENCE ROOM

TUESDAY, MARCH 28, 2017

7:30am Registration ... AMCD Staff

PANEL SESSION:

Moderator: Dr. Rui-De Xue, Director, AMCD, St. Augustine, FL

8:25am Welcome & Introduction ... **Chair, Mr. Gary Howell, AMCD's Board of Commissioners; Dr. Ken. Linthicum, Center Director, USDA/CMAVE; Dr. Rui-De Xue, President of the FMCA**

8:30am **Keynote Speaker: Challenges and prospects for control of vector-borne diseases ... Dr. Doug Norris, Professor, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD**

9:10am **Guest Speaker: The 2016 Zika outbreak in Miami: Lessons learned ... Dr. John C. Beier, Professor and Division Chair, University of Miami Miller School of Medicine, Miami, FL**

9:40am Army public health command-Atlantic's mosquito surveillance program in response to the Zika threat..
Mr. Benedict Pagac, Chief, and Dr. Alexandra Spring, Lab Manager, Entomological Sciences Branch, Public Health Command, Atlantic, Fort Meade, MD

10:00 A.M. - BREAK

Moderator: Dr. Ken. Linthicum, Center Director, USDA/CMAVE, Gainesville, FL

10:20am Update on planning and prospects of SIT/IIT/RIDL for control of vector mosquitoes in Florida ... **Mrs. Adriane Rogers, Medical Entomologist, Dept. of Agricultural and Consumer Services, Florida State, Tallahassee, FL**

10:40am Early history of Sterile Insect Technology for mosquito control ... **Dr. Dave Dame, Research Leader (Retired), USDA/CMAVE, Gainesville, FL**

11:00am IVCC vector control development update **Dr. Jason Richardson, Technical Coordinator, IVCC, Liverpool, UK**

- 11:20am Resistance/susceptibility profile of *Aedes aegypti* in Miami/Dade ... **Dr. Rajeev Vaidyanathan, Director, Environmental Science, Clarke, St. Charles, IL**
- 11:40am Insecticide resistance surveillance in *Aedes albopictus* and *Aedes aegypti* ... **Miss Casey Parker, Ph.D. student & Dr. Roxanne Connelly, Professor, University of Florida/IFAS/FMEL, Vero Beach, FL**

12:00 P.M. - LUNCH BREAK (provided by UNIVAR)

PROGRAMS & ASSOCIATIONS:

Moderator: Dr. Dan Kline, Research Entomologist, USDA/CMAVE, Gainesville, FL

- 1:00pm Department program overview of Entomology and Nematology, University of Florida/IFAS ... **Dr. Blair D. Siegfried, Chairman, Dept. of Entomology & Nematology, UF/IFAS, Gainesville, FL**
- 1:25pm Overview of Southeast Regional Center of Excellence in Vector-borne Diseases, The Gateway Program ... **Dr. Rhoel R. Dinglasan, Associate Professor, Emerging Pathogens Institute, University of Florida, Gainesville, FL**
- 1:50pm Update on arboviral diseases in the Arabian Peninsula: epidemiology, challenges and opportunities for prevention and control ... **Dr. Emad I.M. Khater, Hany A. Kamal, and Ernest Tambo. Public Health Pests Laboratory of Jeddah Governorate, Saudi Arabi.**
- 2:05pm Update on Society of Vector Ecology ... **Dr. Dan Kline, Past President of the SOVE, Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL**
- 2:15pm The Florida Mosquito Control Association and Florida Entomological Society updates ... **Dr. Rui-De Xue, President of the FMCA and Florida Entomology Society, Director of AMCD, St. Augustine, FL**
- 2:30pm Mosquito control response after hurricane in Volusia County ... **Mr. James McNelly, Director, Volusia Mosquito Control District, New Smyrna, FL**
- 2:45pm Tropical bed bugs in Florida ... **Ms. Brittany Campbell, Mr. Roberto Pereira, and Mr. Phil Koehler, University of Florida, Dept. of Entomology and Nematology, Gainesville, FL**

3:00 P.M. - BREAK

DISEASES SURVEILLANCE:

Moderator: Dr. Doug Norris, Professor, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

- 3:20pm Zika outbreak in Florida ... **Dr. Andrea Bingham, Arbovirus Surveillance Coordinator, Bureau of Epidemiology, DOH, Tallahassee, FL**
- 3:40pm Isolation and characterization of La Crosse virus from mosquitoes collected in Connecticut ... **Dr. Philip Armstrong. Virologist/Medical Entomologist, Center for Vector Biology and Zoonotic Diseases, The Connecticut Agricultural Experiment Station, New Haven, CT**
- 4:00pm Detection and analysis of Japanese Encephalitis type B virus from mosquitoes collected in Jiangsu, China ... **Dr. Zhi-Ming Wu, Dept. of Vector Control & Disinfections, Jiangsu Provincial CDC, Nanjing, China**
- 4:20pm Blood feeding status of mosquitoes caught in BG traps ... **Dr. Mohamed Sallam, Dr. Roberto Pereira, and Dr. Phil Koehler, Dept. of Entomology & Nematology, UF, Gainesville, FL**

- 4:30pm Arbovirus & mosquito population surveillance in Collier County ... **Dr. Mark Clifton, Research Entomologist, Collier Mosquito Control District, Naples, FL**
- 4:50pm Arbovirus and *Aedes* mosquito population surveillance in St. Johns County ... **Mr. Joseph D'Amato, Biotech, AMCD, St. Augustine, FL**
- 5:00pm West Nile virus: reactions to Florida Department of Health advisories and alerts.... **Mr. Michael T. Riles, Entomologist, Beach Mosquito Control District, Panama, FL**
- 5:10pm Mosquito population outbreak and control efforts after hurricane Matthew in St. Johns County, FL ... **Mrs. Kay Gaines, Supervisor, AMCD, St. Augustine, FL**

5:30 P.M. END OF THE SESSION

- 6:00pm Dinner & Lecture at meeting site (Education leadership and accomplishments in St. Johns County) ... **Dr. Joseph Joyner, Incoming President of Flagler College and former Superintendent of St. Johns School Board, St. Augustine, FL**

WEDNESDAY, MARCH 29, 2017

BIOLOGY & ECOLOGY:

Moderator: Dr. Paul Linser, Professor, University of Florida/Whitney Laboratory, St. Augustine, FL

- 8:30am Factors affecting mosquito orientation to hosts ... **Dr. Mohamed Sallam, presented by Dr. Roberto Pereira, and Dr. Phil Koehler, Dept. of Entomology & Nematology, UF, Gainesville, FL**
- 8:50am A Carbonic Anhydrase in the nervous system and muscles of *Aedes aegypti* ... **Dr. Paul Linser, Professor, University of Florida, Whitney Laboratory, St. Augustine, FL**
- 9:10am Comparative metagenomics of wild *Aedes albopictus* populations in Florida, US and Hainan Island, China ... **Dr. Jiannong Xu, Associate Professor, Department of Biological Sciences, New Mexico State University**
- 9:30am Protocol development for attractive toxic sugar bait (ATSB) evaluations ... **Ms. Anna Katrina C. Briley, Navy Entomology Center of Excellence, JAX, FL**
- 9:50am Killing male mosquitoes using boric acid sugar baits and its impact on female fecundity and fertility of *Aedes albopictus* ... **Dr. Fei Wang, Hongkou CDC, Shanghai, presented by Dr. Daniel Dixon, Molecular Biologist, AMCD, St. Augustine, FL**
- 10:05am Development and its impact on the mosquito population in St. Johns County, Florida ... **Dr. Yong Zhang, Beijing CDC, Dr. Mohamed Sallam, presented by Mr. Richard Weaver, AMCD, St. Augustine, FL**

10:20 A.M. - BREAK

ATTRACTANT / TRAP / REPELLENT:

Moderator: Dr. J.R. Bloomquist, Professor, Department of Entomology and Nematology, EPI, University of Florida, Gainesville, FL

- 10:40am Is the H-trap a reliable surveillance tool for mosquitoes and biting midges? ... **Dr. Dan Kline, Research Entomologist, USDA/ CMAVE, Gainesville, FL**
- 11:00am Trap placement in animal exhibits at zoos increase the stable fly catch ... **Dr. Jerry Hogsette, Lead Scientist & Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL**

- 11:20am New rotate traps and sucking traps for surveillance of mosquitoes ... **Mr. Brian Liang, Manager, American LongRay, San Francisco, CA**
- 11:30am Toxicity of vapor active insecticides against multiple mosquito vectors ... **Mr. Christopher Bibbs, Biologist and Ph.D. student, AMCD, St. Augustine, FL**
- 11:50am Insecticidal activity of three commercial spatial repellent candles against *Aedes aegypti* ... **Dr. Yuan Shen, Director of Vector Control, Wuxi CDC, presented by Dr. Rui-De Xue & Mr. Christopher Bibbs, AMCD, St. Augustine, FL**
- 12:00pm ADAPCO's technology, adulticide and larvicide update ... **Mr. Chris Peterson, ADAPCO, Sanford, FL**

12:10 P.M. - LUNCH BREAK (provided by ADAPCO)

The FMCA's Northeast Regional roundtable meeting ... **Dr. Peter Jiang, NE Regional Director**

LARVAL & ADULT CONTROL:

Moderator: Dr. Jerry Hogsette, Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL

- 1:00pm Update on SpringStar's lethal oviposition traps for *Aedes* mosquito control ... **Dr. Rebecca Heinig, Head of Research and Development, SpringStar Inc. Seattle, WA**
- 1:20pm Larvicidal chips for control of container-breeding mosquitoes ... **Dr. Robert Pereira and Dr. Phil Koehler, Dept. of Entomology & Nematology, UF, Gainesville, FL**
- 1:40pm Update on acoustic larvicide against *Aedes* mosquitoes ... **Mr. Herbert Nyberg, CEO, New Mountain Innovations, Inc., Niantic, CT**
- 2:00pm Effectiveness of spray dissemination of a ground ULV unit modified to apply liquid larvicide ... **Ms. Brook Spath and Mr. Joseph Scott, Satellite High School, Mr. J Faella, Supervisory Biologist, Brevard County Mosquito Control Program, J. Walter, UF-Brevard Extension, Titusville, FL**
- 2:10pm Trials across multiple environments for control of *Aedes aegypti* larvae ... **Dr. Seth C. Britch, Research Entomologist, USDA/CMAVE, Gainesville, FL. Kenneth J. Linthicum, Robert L. Aldridge, France V. Golden, Emily Moore, Catherine McDermott, Jeremy Wittie, Melissa Snelling, Arturo Gutierrez, Alongkot Ponlawat, Arissara Pongsiri, Jerry Kerce, Jessika Bliersch, Mark Breidenbaugh, Karl Haagsma.**
- 2:30pm Mist blower treatments of Lambda-cyhalothrin and Pyriproxyfen for control of *Aedes* mosquitoes. ... **Dr. Mohamed Sallam, Dr. Roberto Pereira, presented by Dr. Phil Koehler, Dept. of Entomology & Nematology, UF, Gainesville, FL**
- 2:50pm Evaluation of two residual spray products for *Aedes albopictus* management ... **Dr. Isik Unlu, Superintendent, Mercer County Mosquito Control, West Trenton, NJ; Devi Suman, Yi Wang, Greg Williams, Nicky Gallagher, Randy Gaugler**

3:10 P.M. - BREAK

INSECTICIDES AND ULV SPRAY:

Moderator: Dr. Isik Unlu, Superintendent, Mercer County Mosquito Control, West Trenton, NJ

- 3:20pm New repellents, insecticides, and synergistic mixtures for mosquito vector control ... **Dr. J. R. Bloomquist, A. Gross, S. Jiang, M. Tsikolia, and U.R. Bernier, Dept. of Entomology and Nematology, EPI, University of Florida, Gainesville, FL**
- 3:40pm Isolation and characterization of Sodium Channel Mutations in an *Aedes aegypti* field strain ... **Mrs.**

Lucy Li, Alden S. Estep, and James J. Becnel, USDA/CMAVE, Gainesville, FL

- 4:00pm The high pressure spray system and the positive benefits of reducing insecticide and non-deposits to the environment ... **Ms. Nicole Williams, Application Dynamics**
- 4:20pm Penetration of ULV sprays into dwellings to suppress Dengue vectors in urban areas ... **Dr. Muhammad Farooq, James E. Cilek, Anna Katrina C. Briley, Joshua R. Weston, Evan M. Sumners, Erica J. Lindroth, Jessika S. Blersch, Navy Entomology Center of Excellence (NECE), Jacksonville, FL**
- 4:40pm Optimization of ULV space sprays against caged *Aedes albopictus* ... **Dr. Peter Jiang, Entomologist & Director, Gainesville City Mosquito Control Division, Gainesville, FL**
- 5:00pm Unmet needs for surveillance and control approaches on Zika epidemics and other arbovirus disease threats ... **Dr. Ernest Tambo, Public Health Pests Laboratory, Jeddah Governate, Jeddah, Kingdom of Saudi Arabia**

5:20 P.M. END OF THE SESSION

THURSDAY, MARCH 30, 2017

NE-1443: Biology, Ecology & Management of Emerging Disease Vectors (3rd annual meeting)

- 8:30am: **Invited Speaker, Dr. John C. Beier, Professor of Public Health Sciences, University of Miami: Zika outbreak and control efforts in Miami**
- 9:30 am: Preliminary Business Meeting
- Chair's Report
 - CSREES Representative's Report
 - Administrative Advisor's Comments
- 10:00 am: Introductions - Each participant briefly introduces themselves and their interests
- 10:15 am: **Break**
- 10:45 am: Review of Major Objectives and Goals
- Objective 1: Development of parasitic arthropod catalogue/resources
 - Objective 2: Integrated tick management and community-centered approaches, including understanding the biology and ecology of novel and emerging tick-borne pathogens
- 12:00 pm: **Lunch Break (provided by Central Life Sciences)**
- 1:15 pm: Review of Major Objectives and Goals (*continued*)
- Objective 3: *Ae. albopictus* and *Ae. aegypti*, with a focus on surveillance, range expansion, ecology, genetics, climate change and disease risk
 - Objective 4: New Control Tools, including socio-ecological approaches
 - Objective 5: Training and training tools
- 3:00 pm: **Break and Group Photo**
- 3:30 pm: Group discussions on potential funding sources and development of prospective collaborative proposals
- 4:30 pm: Wrap-up including discussion of 2018 Annual Meeting site, dates, venue and agenda
- 5:00 pm: Adjourn and workshop end

For additional information about NE 1443 meeting, see the NE 1443 Website at:
<http://www.nimss.org/projects/view/mrp/outline/16677>

Or contact Dr. Philip Armstrong <Philip.Armstrong@ct.gov>