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SUNDAY – SEPTEMBER 15, 2024

8:00 – 12:00 VECTOR-BORNE DISEASE OUTBREAK SIMULATION WORKSHOP (PRE-REGISTRATION REQUIRED)
Angela Pelzel-McCluskey, Stephanie Brault, and Sarah Speth
Colorado State University, Diagnostic Medical Center (DMC) Room 101

2:00 – 5:00 REGISTRATION (SALON FOYER)

2:00 – 3:00 JOURNAL OF VECTOR ECOLOGY EDITORIAL BOARD MEETING (WINDSOR/SALON)

3:00 – 5:00 BOARD MEETING (WINDSOR/SALON)

MONDAY – SEPTEMBER 16, 2024

8:00 – 8:30 WELCOME
Lee Cohnstaedt lee.cohnstaedt@usda.gov
Vice President/Program Chair
USDA

AWARDS PRESENTATIONS
Lyric Bartholomay lyric.bartholomay@wisc.edu
President
University of Wisconsin-Madison, Madison WI

Denise Bonilla denise.l.bonilla@usda.gov
President-Elect
PRESIDENTIAL ADDRESS
Lyric Bartholomay lyric.bartholomay@wisc.edu
President
University of Wisconsin-Madison, Madison WI

8:30 – 9:30 KEYNOTE ADDRESS
Vector Ecology in an Age of Global Change
Ben Beard, cbbo@cdc.gov Centers for Disease Control, Fort Collins, CO

9:30 – 10:00 REPORTS FROM INTERNATIONAL SOVE REGIONS:

EURO SOVE
Filiz Gunay gunayf@gmail.com
Hacettepe University, Turkey

LATIN AMERICAN SOVE
Christina McCarthy mccarthychristina@gmail.com
Universidad Nacional de La Plata, La Plata, Argentina

ASIAN SOVE
Rui-De Xue xueamcd@gmail.com
Anastasia Mosquito Control District, St. Augustine, FL

INDIAN SOVE
Ashwani Kumar ashwani07@gmail.com
National Institute of Malaria Research (ICMR), DHR, Govt of India
10:00 – 10:30 **BREAK – SPONSORED BY CENTRAL LIFE SCIENCES**

**ASK THE EXPERT DISPLAY**
– LEADING EDGE ASSOCIATES

10:30 – 12:00 **SYMPOSIUM 1: THE COMING PLAGUES**

Moderators: **Paula Lado Henaise**
USDA-ARS
Manhattan, KS
Paula.lado_Henaise@usda.gov

10:30 – 12:00 **SYMPOSIUM 1: THE COMING PLAGUES**

**Diseases All Around: Manatee County (FL) Mosquito Control District’s Response to Locally Transmitted Malaria and Dengue in Sarasota and Hardee Counties in 2023**

**Christopher Lesser**
Christopher.lesser@manteemosquito.com
Manatee County Mosquito Control District, Ellenton, FL

**The emerging global threat of African horse sickness**

**Marion England** marion.england@pirbright.ac.uk The Pirbright Institute, Woking, UK

**Japanese Encephalitis virus surveillance on U.S. Army installations in the Republic of Korea: virus genotype shift, insecticide resistance and the efficacy of countermeasures**

**Craig Stoops** craig.a.stoops.civ@health.mil BDAACH, Camp Humphreys, Republic of Korea.

**La Crosse encephalitis in NC: eco-epidemiological studies make the case for serious public health and mosquito control interventions**

**Brian Byrd** bdbyrd@wcu.edu Western Carolina University, Cullowhee, NC
11:30 – 11:45 Ten years and nearly ten thousand triatomines from 28 states and 5 countries: updates on the Kissing Bug Community Science Program
Sarah Hamer shamer@cvm.tamu.edu Texas A&M University, College Station, TX

11:45 – 12:00 Are tick-borne diseases a threat in the Texas Panhandle?
Bianca Rendon bianca.rendon@ttu.edu Texas Tech University, Lubbock, TX

12:00 – 1:30 LUNCH (ON YOUR OWN)

1:30 – 3:30 SYMPOSIUM 2: COOL SH*T YOU SHOULD KNOW

Moderators: Lee Cohnstaedt
USDA-ARS
Manhattan, KS
lee.cohnstaedt@usda.gov

1:30 – 1:45 Current status of metatranscriptomic studies in hematophagous disease-transmitting vectors
Christina McCarthy mccarthychristina@gmail.com
Universidad Nacional de la Plata, La Plata, Argentina

1:45 – 2:00 BugOut Wolbachia, an Incompatible Insect Release Programme in the British Virgin Islands: Data-driven support for a community driven project
Johanna Ohm joohm@verily.com Verily Life Sciences, San Francisco, CA

2:00 – 2:15 Call of the Wilds: ticks at a free-ranging exotic wildlife conservation center
Risa Pesapane, pesapane.1@osu.edu The Ohio State University, Columbus, OH

2:15 – 2:30 National network of research resources for vector-borne diseases
Anna Powers akp7@cdc.gov Centers for Disease Control and Prevention, Fort Collins, CO

2:30 – 2:45 WHO Global Policies, Strategies, and Normative Guidance for Control of Dengue

Rajpal Singh Yadav rajpal@yadav.cloud World Health Organization, Geneva, Switzerland

2:45 – 3:00 TBD

3:00 – 3:15 When ticks bite! Tick-bites and their contribution to alpha-gal syndrome (AGS)

Paulina Maldonado lpmaladonado@arizona.edu University of Arizona, Tucson, AZ

3:15 – 3:30 Texas ranches: a nidus for Trypanosoma cruzi transmission among wildlife, dogs, and triatomines

Rachel Busselman rbusselman@cvm.tamu.edu Texas A&M University, College Station, TX

3:30 – 3:45 BREAK – SPONSORED BY VESERIS

ASK THE EXPERT DISPLAY

– LEADING EDGE ASSOCIATES

3:45 – 5:15 SYMPOSIUM 3: VECTOR ECOLOGY

Moderators: Risa Pesapane
The Ohio State University
Columbus, OH
pesapane.1@osu.edu

Anna Fagre
Colorado State University
Fort Collins, CO
anna.fagre@colostate.edu
3:45 – 4:00  Towards a transboundary IMMP strategy using multidisciplinary vector surveillance
Filiz Gunay filizgunay@ufl.edu University of Florida, Vero Beach, FL

4:00 – 4:15  Sand Fly larvae are capable of positive chemotaxis: A proof of concept study using *Phlebotomus papatasi* as a model species
Alexandra Chaskopoulou achaskopoulou@ars-ebcl.org European Biological Control Laboratory, USDA-ARS, Thessaloniki, Greece

4:15 – 4:30  A field survey of larval development habitats of Culicoides midges in Colorado
Carly Barbera cbarbera@nd.edu University of Notre Dame, Notre Dame, IL

4:30 – 4:45  Optimizing environmental DNA (eDNA) methods for Culex mosquito surveillance in artificial container habitats
Megan Schierer megan.schierer@maine.edu University of Maine, Orono, MA

4:45 – 5:00  Malaria infection in the urban malaria vector *Anopheles stephensi* under variable humidity and temperature
Brandy St. Laurent bs744@cornell.edu Cornell University, Ithaca, NY

5:00 – 5:15  Bite Diary: revealing patterns and factors of human-mosquito contract in Florida using a smart phone app-based survey
Panpim Thongsripong thongsripong.p@ufl.edu University of Florida, Vero Beach, FL

6:00 – 8:00  OPENING RECEPTION (PAVILLION) – SPONSORED BY VALENT BIOSCIENCES
TUESDAY – SEPTEMBER 17, 2024

8:15 – 12:00  FIELD ECOLOGY DAY

Coyote Ridge Trail hike to start ~9 am
This trail is considered “easy” with an elevation gain of 564 ft and is 4.1 miles long. The hike takes about 2 hours to complete.
Carpoolers will meet in front of the hotel at 8:15 am
Lunch is on your own

6:00 – 8:00  GALA DINNER (SALON D)

WEDNESDAY – SEPTEMBER 18, 2024

7:30 – 9:00  BREAKFAST BUFFET AND POSTER SESSION

P1  Repeated thermal shock events and their interaction with Wolbachia and dengue virus infections in Aedes aegypti
Suk Lan Ser  sjis7721@psu.edu  Pennsylvania State University, State College, PA

P2  Using nanopore sequencing for mosquito species identification and confirmation
Linda Kothera  lkothera@cdc.gov  Centers for Disease Control and Prevention, Fort Collins, CO
Mosquitoes harvested from rice-fields as alternative protein ingredient in broiler feed: Insights from the first pilot study

**Panagiota Tsafrakidou** panag.tsafrak@gmail.com
USDA-ARS European Biological Control Laboratory, Thessaloniki, Greece

Evaluating temporal and spatial *Borrelia burgdorferi* strain diversity in endemic vs newly established blacklegged tick populations in Michigan, USA.

**Michelle Volk** volkmic1@msu.edu Michigan State University, East Lansing, MI

Examining the heterogenous distribution of blacklegged ticks (*Ixodes scapularis*) in the northern Lower Peninsula of Michigan

**Arpita Nayak** nayakar1@msu.edu Michigan State University, East Lansing, MI

Synergizing Pyrethroid-treated Military Fabrics with Potassium Channel Blockers

**Edmund Norris** Edmund.norris@usda.gov USDA-ARS, Gainesville, FL

Passing it down: *Culex tarsalis* ovary scRNA-Seq reveals markers for studies of arbovirus vertical transmission

**Hunter Ogg** hunter.ogg@colostate.edu Colorado State University, Fort Collins, CO

IPM Working Group: Mosquito BEACONS – Biodiversity Enhancement And Control of Non-native Species

**Michael Riles** mriles@central.com Central Life Science, Panama City Beach, FL
Progress and highlights from the Centers for Disease Control and Prevention National Tick Surveillance Program: 2018 through 2023.

Erik Foster owm1@cdc.gov Centers for Disease Control and Prevention, Fort Collins, CO

Oral delivery of a modern-day systemic acaricide formulation for pathogen vector management on white-tailed deer in Connecticut

Scott Williams scott.williams@ct.gov Connecticut Agricultural Experiment Station, New Haven, CT

An integrative framework for tick management: the need to connect wildlife science, One Health, and interdisciplinary perspectives.

Karen Poh karen.poh@usda.gov USDA-ARS, Pullman, WA

Circadian flight activity and vertical stratification of hemorrhagic disease vectors

Vilma Cooper-Montenegro vilma.montenegro@ufl.edu University of Florida, Vero Beach, FL

Gene regulation and chromatin changes in Aedes aegypti following blood meal acquisition: Insights from CUT&RUN analysis

Zeyad Arhouma zkrahuma@rams.colostate.edu Colorado State University, Fort Collins, CO

Sweetening the deal: Development of a novel toxic sugar bait for managing insecticide resistant mosquitoes

Alexandra Bauer bauer.a@ufl.edu University of Florida, Vero Beach, FL
P15  Prevalence and diversity of Borrelia species in ixodid ticks and wildlife from coastal Georgia: a project proposal
Taylor Pearson tap14550@uga.edu University of Georgia, Athens, GA

P16  Saccharine ceratopogonids: Determining sugar-source associations of Culicoides biting midges (Diptera: Ceratopogonidae)
Chip Markwardt tlmrk19@ksu.edu Kansas State University, Manhattan, KS

P17  Life history traits of male Aedes aegypti are influenced by exposure to microbes derived from natural larval sites
Luis Martinez Villegas martinezvillegas.1@osu.edu Ohio State University, Columbus, OH

P18  Microbial melees in mosquitoes: Bacterial type VI secretion systems revealed in the Mosquito-Associated Isolate Collection (MosAIC)
Holly Nichols hlnichols@wisc.edu University of Wisconsin, Madison, WI

P19  Public health command, east’s collaborative role in the global public health network in characterizing and preventing emerging tick-borne diseases
Alexandra Spring Alexandra.r.spring.civ@health.mil Army Public Health Command, Fort Meade, MA

P20  A rodent and tick bait for concurrent control of white-footed mice (Peromyscus leucopus) and blacklegged ticks (Ixodes scapularis), the respective pathogen host and vector of Lyme disease spirochetes.
David Poche davidp@genesislabs.com Genesis Laboratories, Wellington, CO
**P21**  
The effect of larval density on adult Culicoides sonorensis size and susceptibility to infection with bluetongue virus  
Bethany McGregor  
Bethany.mcgregor@usda.gov  
USDA-ARS, Manhattan, KS

**P22**  
Simulated larval control in mesocosms leads to overcompensation in the yellow fever mosquito  
Nicole Scavo  
Nicole.a.scavo@gmail.com  
Texas A&M University, College Station, TX

**P23**  
Toward a transboundary IMMP strategy using multidisciplinary vector surveillance  
Filiz Gunay  
filizgunay@ufl.edu  
University of Florida, Vero Beach, FL

**P24**  
*Ae aegypti* and other mosquito species cohabitating in the Chekwouputoi cave, Uganda  
Austin Mejia  
Austin.mejia@colostate.edu  
Colorado State University, Fort Collins, CO

**P25**  
Incriminating vectors of deer malaria (*Plasmodium odocoilei*) in a Florida deer farm  
Morgan Rockwell  
morganrockwell@ufl.edu  
University of Florida, Vero Beach, FL

**P26**  
Genetic and landscape connectivity of disease-causing Blacklegged ticks during range expansion in the midwestern U.S.  
Dahn-young Dong  
ddong22@wisc.edu  
University of Wisconsin, Madison, WI

**P27**  
Evaluation of regional surveillance of West Nile virus and St. Louis encephalitis virus in the panhandle of Texas  
Sierra Lewis  
sierra.lewis2023@gmail.com  
Texas Tech University, Lubbock, TX
Whole genome and mitogenome analysis of *Ixodes* spp. throughout the United States

**Jacob Cassens** casse090@umn.edu  University of Minnesota, Minneapolis, MN

Kissing bugs in Delaware: *Trypanosoma cruzi* prevalence and human blood feeding across the land use types

**Alexander Kelley** arkelley@udel.edu  University of Delaware, Newark, DE

Evaluation of larvicidal efficacy, *Bacillus thuringiensis israelensis* and (S)-methoprene, on *Culex tarsalis* populations in Lubbock County, Texas, USA

**Melissa Clawson** meclawso@ttu.edu  Texas Tech University, Lubbock, TX

Understanding the immune response to bluetongue virus infection in ruminant hosts: a model-based analysis

**Abhijit Majumder** amajumde@nd.edu  University of Notre Dame, South Bend, IN

Building a comprehensive insecticide resistance testing program in an integrative mosquito management district in St. Johns County, Florida

**Connor Kuppe** ckuppe@amcdfl.org  Anastasia Mosquito Control District, St. Augustine, FL

Investigating diurnal patterns and weather influence on *Dermacentor* ticks in Colorado

**Savanna Schroth** scroths@colostate.edu  Colorado State University, Fort Collins, CO

Refining mathematical models to better predict non-systemic transmission of tick-borne pathogens
**Stacy Mowry** smowry@nd.edu University of Notre Dame, Notre Dame, IN

**P35**
Ecological determinants of tick distribution and disease risk in Northern Colorado

**Sabrina Gobran** sabrina.gobran@colostate.edu Colorado State University, Fort Collins, CO

**P36**
Developing thermal profiles to better understand and predict house fly (*Musca domestica*) activity

**Travis Rusch** travis.rusch@usda.gov USDA, Manhattan, KS

**P37**
Impact of slope, aspect, and elevation on the distribution and abundance of *Dermacentor andersoni*

**Brooke Shenkenberg** bshenky2001@gmail.com Colorado State University, Fort Collins, CO

**P38**
Arboviral surveillance in St. Johns County, northeast Florida: Comparing two commonly utilized surveillance methods

**Steven Peper** speper@amcdfl.org Anastasia Mosquito Control District, St. Augustine, FL

**P39**
Evaluating pollen quantity by flower-visited mosquitoes

**Nalany Richson** nr15837@uga.edu University of Georgia, Athens, GA

**P40**
Assessing the impact of genetically engineered mosquito ingestion by several mosquito predators

**Claire Egan** cmegan@ucdavis.edu University of California, Davis, CA

**P41**
Patterns of West Nile virus prevalence and levels in northern Colorado raptors
Catalina Puska cpuska@colostate.edu Colorado State University, Fort Collins, CO

P42 Expanding the mosquito teaching collection of Colorado State University in consideration of shifting ranges and emerging pathogens

Anna Hartwick anna.hartwick@colostate.edu Colorado State University, Fort Collins, CO

P43 Evaluating the efficacy of *Bacillus thurigiensis israelensis* (BTI) in mosquito populations in northern Colorado

Logan Lowe logan.lowe@colostate.edu Colorado State University, Fort Collins, CO

P44 Evaluating active and passive tick surveillance techniques across northern Colorado

Lawson Dawe lawson.dawe@colostate.edu Colorado State University, Fort Collins, CO

P45 Prospects for an effective canine vaccine against the brown dog tick, *Rhipicephalus sanguineus*

Sri Jyosthsna Kancharlapalli mwm7@cdc.gov Centers for Disease Control and Prevention, Atlanta, GA

P46 Utilizing drone technology to control red imported fire ant predation on the endangered Florida grasshopper sparrow

Piper Reynolds piper@leateam.com Leading Edge Aerial Technologies, Daytona, FL

P47 2024 RaHP Vec Utah aerial adulticide efficacy

Jessica Larsen jessicalarsen17@hotmail.com RaHP Vec, Fort Collins, CO
Susceptibility of the ferret (Mustela putorius furo) to infection by *Ehrlichia chaffeensis*

**William Nicholson** wnicolson@cdc.gov Centers for Disease Control and Prevention, Atlanta, GA

Survey of *Ixodid* ticks and rickettsial pathogens collected at state parks in north and central Georgia

**Alexandria Harris** alexharris2781@gmail.com Centers for Disease Control and Prevention, Atlanta, GA

Assessing susceptibility of adult mosquitoes to pyrethroid insecticides in Larimer County, CO

**Sofia Christensen** sofia.christensen2@gmail.com Colorado State University, Fort Collins, CO

Assessing the impact of community science tick stations at trailheads on the knowledge, attitudes, and practices of natural area visitors in Colorado

**Foram Raval** fraval@colostate.edu Colorado State University, Fort Collins, CO

Phenology and pathogen risk presented by tick and *Tabanid* vectors in Ohio agriculture

**Benjamin Zeiger** zeriger.17@buckeyemail.osu.edu Ohio State University, Columbus, OH

Attributing the efficacy of a spatial repellent against *Aedes*-borne diseases to entomological mechanisms

**Alex Perkins** tperkin1@nd.edu University of Notre Dame, Notre Dame, IN

A spatial, agent-based model to explore mechanisms of bluetongue virus persistence at the interface of domestic and wildlife animal populations
Geonsik Yu  
Email: yu851@purdue.edu
University of Notre Dame, Notre Dame, IN

P55
Comparative evaluation of an inexpensive mosquito trap for surveillance of invasive *Aedes* and *Culex* mosquitoes in southern California

**Robert Cummings** rcummings1026@gmail.com
Orange County Mosquito and Vector Control District, Garden Grove, CA

P56
A low-cost light trap for the surveillance of phlebotomine sand flies and mosquitoes

**Sergio Mendez-Cardona** Sergio.mendez@ufl.edu
University of Florida, Vero Beach, FL

P57
Phenology and wildlife host associations of hard ticks, *Rickettsia*, and *Borrelia* species in east Texas

**Jordan Salomon** jordansalomon@tamu.edu
Texas A&M University, College Station, TX

P58
Efficacy of factor permethrin-treated military uniforms in reducing mosquito biting rates under semi-field conditions

**Thomas McGlynn** Thomas.j.mcglynn7.mil@health.mil
Navy Entomology Center of Excellence, Jacksonville, FL

P59
Field evaluation of the Biogents BG-Pro trap and the CDC Miniature light trap for the collection of host-seeking mosquitoes in Kennesaw, Georgia, USA

**Andrew Haddow** ahaddow@kennesaw.edu
Kennesaw State University, Kennesaw, GA

P60
Hybridization of *Ixodes scapularis* behavioral phenotypes: observations of offspring behavior and survival
Jean Tsao tsao@msu.edu Michigan State University, East Lansing, MI

P61 Single nucleotide polymorphism detection using ddRAD-Seq of *Culex quinquefasciatus* and *Aedes aegypti* specimens

Jacqueline Sitko sjb2@cdc.gov Centers for Disease Control and Prevention, Fort Collins, CO

P62 Acquisition of *Borrelia burgdorferi* sensu stricto by *Haemaphysalis longicornis* nymphs during interrupted feeding

Christina Parise osb1@cdc.gov Centers for Disease Control and Prevention, Fort Collins, CO

P63 Factors associated with historical West Nile virus activity in northern Colorado

Zane Wilson zanewilson99@gmail.com Colorado State University, Fort Collins, CO

9:00 – 10:30 **SYMPOSIUM 4: VECTOR GENETICS AND WILDLIFE**

Moderators: Tyler Sherman
Colorado State University
Fort Collins, CO
tyler.sherman@colostate.edu

Karen Poh
USDA-ARS
Pullman, WA
Karen.poh@usda.gov
9:00 – 9:13 New genome for the biting midge Culicoides sonorensis
**Phillip Shults** [Phillip.shults@usda.gov](mailto:Phillip.shults@usda.gov) USDA-ARS, Manhattan, KS

9:13 – 9:26 Metagenomic sequencing to determine risks of human pathogens from pastured cattle in Arkansas
**Cameron Osborne** [cjosbo@uark.edu](mailto:cjosbo@uark.edu) University of Arkansas, Fayetteville, AR

9:26 – 9:39 Genome-wide sequencing and oviposition dual choice experiments unravel the phenotypic basis of local adaptation in the major malaria vector Anopheles gambiae
**Marilene M. Ambadiang** [mae.marie1995@yahoo.com](mailto:mae.marie1995@yahoo.com) University of Yaounde, Yaounde, Cameroon

9:39 – 9:52 Microsatellites and single nucleotides reveal speciation within the Amblyomma maculatum group
**Henrey Deese** [hdeese@arizona.edu](mailto:hdeese@arizona.edu) University of Arizona, Tucson, AZ

**Denise Bonilla** [denise.l.bonilla@usda.gov](mailto:denise.l.bonilla@usda.gov) USDA-APHIS, Fort Collins, CO

10:04 – 10:17 Natural history of *Amblyomma maculatum* sensu lato, a newly recognized vector of *Rickettsia parkeri* rickettsiosis in the Southwestern United States
**Tammi Johnson** [tammi.johnson@ag.tamu.edu](mailto:tammi.johnson@ag.tamu.edu) Texas A&M University, College Station, TX

10:17 – 10:30 Ectoparasites as Ecosystem Health Indicators: Bat and Bugs as a Blueprint
**Anna Fagre** [anna.fagre@colostate.edu](mailto:anna.fagre@colostate.edu) Colorado State University, Fort Collins, CO

10:35 – 12:35 SYMPOSIUM 5: STUDENT SYMPOSIUM
Moderator: Ayat Abourashed
Erasmus University
Rotterdam, Netherlands
a.abourashed@erasmusmc.nl

10:35 – 10:47 Understanding leishmaniasis transmission through analysis of single blood fed sand flies
Patrick Huffcutt Patrick.huffcutt@nih.gov National Institutes of Health, Rockville, MD

10:47 – 10:59 Tick abundance in increasing concentrations of Eastern Redcedar (Juniperus virginiana) encroached areas in Western and Central Oklahoma
Jozylyn Propst jozlyn.d.kizer@okstate.edu Oklahoma State University, Stillwater, OK

10:59 – 11:11 Impacts of antiplasmodial expression on the mosquito microbiota
Marisa Guido guidom@duq.edu Duquesne University, Pittsburgh, PA

11:11 – 11:23 Survival of Amblyomma maculatum and Amblyomma americanum on commonly used types of home flooring
Afsoon Sabet sabet.17@osu.edu The Ohio State University, Columbus, OH

11:23 – 11:35 The microbial community of five Culicoides midge species harbor microbes that could be targets for the development of paratransgenic and biological control approaches
Amanda Ramirez amanda.ramirez@ttu.edu Texas Tech University, Lubbock, TX

11:35 – 11:47 Larva ecology and geospatial distribution of Anopheles gambiae s1 (Diptera: Culicidae) in Osun State, Nigeria
Lateef Busari lateef.busari@pgc.uniosun.edu.ng Osun State University, Osogbo, Nigeria

11:47 – 11:59 Assessing zoonotic risk of bovine fascioliasis and schistosomiasis at the wildlife-livestock interface around Lake Mburo National Park, southwestern Uganda
Daisy Namirembe namirembedaisy1212@gmail.com
Mbarara University of Science and Technology, Mbarara, Uganda


Carla-Cristina Edwards ccedwards@ucdavis.edu
University of California, Davis, CA

12:11 – 12:23 Tick ecology, pathogen prevalence, and distribution in south Central Oklahoma on tribal and state-owned land

Meghan Gilliland meghan.gilliland@okstate.edu
Oklahoma State University, Stillwater, OK

12:23 – 12:35 Mosquito-flower power: Determining how nectar contents can influence mosquito vectors

Danica Shannon Danica.shannon@uga.edu University of Georgia, Aiken, GA

12:35 – 1:45 LUNCH (ON YOUR OWN)

1:45 – 3:45 SYMPOSIUM 6: JOB MARKET SURVEILLANCE: OPPORTUNITIES IN VECTOR ECOLOGY AND CONTROL

Moderators: Vilma Montenegro
University of Florida
Vero Beach, FL
vilma.montenegro@ufl.edu

Mitchell Kirsch
SC Johnson
Racine, WI
jmkirsch@scj.com

1:45 – 1:50 Introduction

Vilma Cooper (Montenegro) and Mitchell Kirsch
1:50 – 2:00  Take a chance on yourself: Finding and exploiting your strengths  
**Mark Benedict** [mbenedict@cdc.gov](mailto:mbenedict@cdc.gov) Centers for Disease Control and Prevention

2:00 – 2:10  Where do I fit: My career path so far  
**Jennifer Gordon** [jennifer@buglessons.com](mailto:jennifer@buglessons.com) Bug Lessons Consulting LLC

2:10 – 2:20  From Academia to Industry: Shaping vector control strategies with a researcher’s perspective  
**Casey Crockett** [casey.crockett@azelis.com](mailto:casey.crockett@azelis.com) Azelis Agricultural & Environmental Solutions

2:20 – 2:30  From science to service: The entomology and ecology team  
**Saul Lozano** [nkq3@cdc.gov](mailto:nkq3@cdc.gov) Centers of Disease Control and Prevention

2:30 – 2:40  Navigating career pathways beyond academia  
**Whitney Qualls** [wqualls@amcdfl.org](mailto:wqualls@amcdfl.org) Anastasia Mosquito Control District

2:40 – 2:50  Networking: Over a decade of connections  
**Michael T. Riles** [mriles@central.com](mailto:mriles@central.com) Central Life Sciences

2:50 – 3:00  Break

3:00 – 3:45  Q&A discussion

3:45 – 4:00  BREAK – SPONSORED BY CENTRAL LIFE SCIENCES

ASK THE EXPERT DISPLAY  
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4:00 – 5:30  SYMPOSIUM 7: EXPANDING THE VECTOR CONTROL TOOLBOX

Moderator:  
**Lyric Bartholomay**  
University of Wisconsin
Partnersing with Pest Management Professionals to Suppress Nymphal *Ixodes scapularis* (Acari: Ixodidae) in Wisconsin Backyards  
**Lyric Bartholomay** lyric.bartholomay@wisc.edu  
University of Wisconsin, Madison, WI

Expanding the toolbox for flea control and plague mitigation in rodent populations  
**David Eads** deads@usgs.gov U.S. Geological Survey, Fort Collins, CO

The Southern California SIT Joint Pilot Project: Together Building a Foundation for X-ray Sterilized Male *Aedes aegypti* programs  
**Amber Semrow** asemrow@ocvector.org Orange County Mosquito and Vector Control District, Garden Grove, CA

Incorporating Sterile Insect Technique into IPM toolbox to control invasive *Aedes* mosquitoes in the West Valley region of San Bernardino County, California  
**Michelle Brown**, mbrown@wvmvcd.org West Valley Mosquito and Vector Control District, Ontario, CA

Efficacy of Biogents CO2 Generator Starter Kit as an Alternative to Dry Ice with Adult Mosquito Traps in Jacksonville, Florida  
**Sierra Schluep** sschluep@ufl.edu NECE, Jacksonville, FL

The development of a kissing bug kill trap for surveillance and control of triatomines  
**Yuexun Tian** yuexun.tian@ag.tamu.edu Texas A&M University, College Station, TX

Building a low-cost environmental chamber for the maintenance of all life cycle stages of *Ixodes scapularis* ticks
THURSDAY – SEPTEMBER 19, 2024

8:00 – 9:30 SYMPOSIUM 8: NOVEL VECTOR CONTROL

Moderators:  
Brian Foy  
Colorado State University  
Ft. Collins, CO  
brian.foy@colostate.edu

Karla Saavedra-Rodriguez  
Colorado State University  
Ft. Collins, CO  
Karla.Saavedra_Rodriguez@colostate.edu

8:00 – 8:14 Ivermectin-treated bird feed for control of West Nile virus transmission  
Brian Foy brian.foy@colostate.edu Colorado State University, Fort Collins, CO

8:14 – 8:28 The Snack that Bites Back: Attractive Toxic Sugar Baits in the Intermountain West  
Nathaniel Byers nate@slcmd.org Salt Lake City Mosquito Abatement District, Salt Lake City, UT

8:28 – 8:42 Exploring the Potential Impact of Transfluthrin Emanators on Malaria and Dengue Cases  
Jason Richardson Jason.richardson@ivcc.com IVCC, Fort Collins, CO
8:42– 8:56  Evaluations of novel attractants, repellents, and traps at Anastasia Mosquito Control District of St. Johns County, Florida for public health vector control  
Whitney Qualls wqualls@amcdfl.org Anastasia Mosquito Control District, St. Augustine, FL

8:56 – 9:10  Impacts of native Wolbachia infection on mosquito biology  
Leena Salama l.salama@ufl.edu University of Florida, Vero Beach, FL

9:10 – 9:24  Artificial intelligence applied to vector identification and monitoring  
Tristan Ford tristan@vectech.io Vectech, Baltimore, MD

9:24 – 9:29  Compositional analysis and larvicidal activity of nanoemulsified Eucalptus globulus (family: Murtaceae) essential oil against Aedes aegypti  
Komalpreet Kaur Sandhu komalpreetkaur03@gmail.com Akal University, Talwandi Sabo, Bathinda, Punjab, India

9:30 – 10:00  BREAK – SPONSORED BY AZELIS A&ES  
ASK THE EXPERT DISPLAY  
– LEADING EDGE ASSOCIATES

10:00 – 11:30  MODELING AND FORECAST  
Moderators:  
Karen Holcumb  
CDC  
Ft. Collins, CO  
sne3@cdc.gov

Bethany McGregor  
USDA-ARS  
Manhattan, KS  
Bethany.mcgregor@usda.gov
10:00 – 10:15  How a hurricane impacted West Nile virus transmission in a desert  
Jennifer Henke jhenke@cvmvcd.org  Coachella Valley Mosquito and Vector Control District, Indio, CA

10:15 – 10:30  Integrating human behavior to understand the translation of tick hazard into risk: a socio-ecological approach  
Pilar Fernandez pilar.fernandez@wsu.edu  Washington State University, Pullman, WA

10:30 – 10:45  Estimated risk of human encounters with Borrelia burgdorferi-infected nymphal blacklegged ticks in the eastern United States  
Karen Holcomb sne3@cdc.gov  Centers for Disease Control and Prevention, Fort Collins, CO

10:45 – 11:00  Evaluating vector control strategies for dengue: A modeling assessment of alternative approaches  
Maile Phillips ruu6@cdc.gov  Centers for Disease Control and Prevention, San Juan, Puerto Rico

11:00 – 11:15  Dengue forecasting models for the Americas  
Talia Quandelacy talia.quandelacy@cuanschutz.edu  University of Colorado, Aurora, CO

11:15 – 11:30  Spatiotemporal modeling of zoonotic arbovirus systems: Challenges and opportunities  
Lindsay Campbell lcampbell2@ufl.edu  University of Florida, Vero Beach, FL

11:30 – 1:00  LUNCH (ON YOUR OWN)

1:00 – 4:30  MULTISTATE MEETING
Moderator: Allison Gardner and Kristopher Silver

1:00 – 1:20  Introduction by Allison Gardner and Kristopher Silver

1:20 – 1:40  Optimization of integrated tick management strategies
Megan Linske

1:40 – 2:00  Characterization of exosome cargoes of Culex tarsalis cells with West Nile virus
Xiufeng Zhang

2:00 – 2:20  Tick and tick-borne pathogen research at the University of Minnesota
Benjamin Cull

2:20 – 2:40  A One Health approach to detecting, predicting and preventing ticks in areas of range expansion
Risa Pesapane

2:40 – 3:00  Discovering factors influencing host-vector contact dynamics in mosquito-borne disease transmission
Panpim Thongsripong

3:00 – 3:20  Integrating One Health for improved mosquito detection, surveillance and control
Megan Schierer

3:20 – 3:40  Impacts of the microbiota on life history traits and immune defense of the yellow fever mosquito Aedes aegypti
Sarah Short

3:40 – 4:25  Discussion on multistate projects

4:25 – 4:30  CLOSING REMARKS
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