

## **Biology and Control of Vectors and Public Health Pests:**

### ***The Importance of Integrated Pest Management***

Colorado Environmental Health Association

Morrello Room, Hilton Garden Inn, 600 S Colorado Blvd., Glendale, CO 80246

November 5-7, 2014

#### **Wednesday November 5**

8:00 AM: Sign-in, coffee and snack

8:30 – 9:00 AM: Welcome, and Staff Introductions

9:00 – 10:30 AM: Vector-Borne Diseases of Public Health Importance – *CAPT Mike Herring, Dr. Leah Colton*

#### **10:30 – 10:45 AM: Break**

10:45 – 12:00 PM: IPM Basics for Environmental Health Professionals – *Dr. Marc Lame.*

#### **12:00– 1:00 PM: Lunch on your own**

1:00 – 3:00 PM: Bed Bug Biology and Control-  
*Dr. Dawn Gouge*

#### **3:00 – 3:15 PM: Break**

3:15 – 4:45 PM: Special Pest Management Considerations for Schools – *Dr. Dawn Gouge*

4:45 – 5:00 PM: Day One Discussion –  
*Dr. Leah Colton, Dr. Dawn Gouge, Dr. Marc Lame, and CAPT Herring*

#### **Thursday, November 6**

8:00 AM: Sign-in, coffee and snack

8:30AM – 10:15 AM: Rodent Management Part I –  
*Dr. Bobby Corrigan*

#### **10:15 – 10:30 AM: Break**

10:30 – 12:00 PM: Rodent Management Part II –  
*Dr. Bobby Corrigan*

#### **12:00– 1:00 PM: Lunch on your own**

1:00 – 2:15 PM: Pests and Vectors in Food and Housing Environments – *Dr. Marc Lame*

2:15 – 2:45 PM: Day Two Discussion – *Dr. Bobby Corrigan, Dr. Dawn Gouge, Dr. Marc Lame, and Dr. Claudia Riegel*

2:45 – 5:00 PM: Bed Bug Inspection, “Kitchen Crawl”, Perimeter Pest Inspection – *Dr. Bobby Corrigan, Dr. Dawn Gouge, Dr. Marc Lame, and Dr. Claudia Riegel*

#### **Friday November 7**

7:30 AM: Sign-in, coffee and snack

8:00 – 9:30AM: Tick Biology and Control –*Dr. Lars Eisen*

#### **9:30AM – 9:45 AM Break**

9:45AM – 10:45 AM: Mosquito Biology and Control – *Dr. Claudia Riegel*

10:45AM – 12:15 PM: Health Effects of Pesticides – *Dr. Dawn Gouge & Dr. Marc Lame*

#### **12:15PM – 1:15 PM: Lunch on your own**

1:15PM – 2:45PM Vector-borne Diseases as Bio-terror Agents - *CAPT (ret.) Rusty Enscoe*

2:45PM – 4:30 PM: Risk Communication – *John Godec*

4:30PM – 5:00 PM: Day Three, Course Overview, Evaluation and Final Comments – *All speakers*

**Speaker Bios:**

**Captain Mike Herring:** Captain Herring received a Bachelor of Science degree in Environmental Health from East Carolina University in 1980 and a Master of Public Health degree from the University of Texas Health Science Center at Houston in 1993. He began his career in 1980 as an environmental health specialist with the Durham County Health Department in North Carolina. He accepted a commission with the United States Public Health Service 1988. During his Public Health Service career, Captain Herring has been assigned to various positions throughout North America with the Indian Health Service, the U.S. Coast Guard, and the Centers for Disease Control and Prevention (CDC). He currently serves as a Senior Environmental Health Scientist and the Training and Technical Assistance Team Leader for the Environmental Health Services Branch of the CDC National Center for Environmental Health in Atlanta, Georgia. Captain Herring is the recipient of the 2013 Walter S. Mangold Award, the highest honor awarded by the National Environmental Health Association for achievements in the field of environmental health.

**Leah Colton, PhD:** Dr. Colton is currently the Medical Entomology and Zoonoses Epidemiologist

At the Communicable Disease Branch, Disease Control and Environmental Epidemiology Division, Colorado Department of Public Health and Environment. She has undergraduate degrees in Zoology and Microbiology from Weber State University in Ogden, UT and a PhD in Microbiology from CSU Fort Collins where her studies focused on the biology of disease vectors. Dr. Colton worked as a fellow at the CDC's Division of Vector-Borne Diseases from 2002 to 2013 while also attending graduate school. While at the CDC she worked with mosquitoes, fleas and ticks and viruses and bacteria doing public health research and service. Dr. Colton has been working as the Medical Entomology and Zoonoses Epidemiologist at the Colorado Department of Public Health and Environment since June 2013 and is also currently working to finish an MS in Environmental Health at CSU.

**Dr. Dawn Gouge:** Dr. Gouge received her Ph.D., in Nematology/Entomology from the University of Reading, U.K. and her B.Sc., in Applied Biology, from the University of Wales, U.K. Dr. Gouge is an Urban Entomologist at the University Arizona and directs the Arizona Children's Environmental Health Coalition efforts, which includes implementation of Integrated Pest Management (IPM) in Schools and Public Housing. She also co-directs the Western Regional IPM in School Working Group which involves participants in 9 western states. Her research efforts focus on developing reduced-hazard management options for bark scorpions, and bed bugs. She also provides support to Arizona law enforcement entities conducting medicocriminal investigations as well as teaches course accredited classes on Urban IPM.

**Dr. Marc Lame:** In 1995 Marc Lame initiated a school Integrated Pest Management (IPM) program with the Monroe County Community School Corporation in Bloomington, Indiana. The "Monroe IPM Model" for schools proved to be sustainable in Bloomington as well as highly transferable. He and his colleagues have demonstrated and documented the effectiveness of this model in seven states (USEPA Regions 4, 5, 7, 8 and 9 – including 3 Native American school districts), over ten years, showing an average 71% reduction in pesticide applications and 78% reduction in pest complaints to school administrations. Dr. Lame teaches "Environmental Management", "Management Communication", "Environmental Policy" and "Insects and the Environment" and in 2006 Marc was recognized by the US EPA and USDA sponsors of the National IPM Symposium with the first ever IPM Achievement Award.

**Dr. Bobby Corrigan:** Dr. Corrigan holds an A.A.S. degree in pest control from State University of NY; a B.S. degree in urban and industrial entomology from Purdue, and his Masters and Ph.D. degrees in rodent and vertebrate pest management, also from Purdue. He has been active in urban and industrial pest management for over 25 years, and is the owner of RMC Pest Management Consulting, a company that currently provides consulting services to a wide variety of industrial clients and city governments including the City of New York, and Washington D.C.

**Dr. Claudia Riegel:** Dr. Riegel earned an undergraduate degree at Purdue University, a Master's at the University of Georgia, and a Ph.D. from the Entomology and Nematology Department at the University of Florida in 2000. In February 2004, she became Principal Research Entomologist for the City of New Orleans Mosquito and Termite Control Board. In 2006, she became Assistant Director, and in 2010 she was promoted to Director of the department. At the City, she provides technical support for the City of New Orleans and the pest control industry, conducts independent research, collaborates with industry for enhancements of existing products and testing of new products, and collaborates with government organizations and universities on a variety of research projects involving rodents, mosquitoes, termites, and a variety of other urban pests.

**Rusty Ensore:** Russell E. Ensore, M.S., R.S., CAPT USPHS RET, has 30 years of experience in environmental health, control of vector-borne diseases, and bioterrorism response. He retired from the US Public Health Service commissioned corps, at the rank of captain, in 2010. He is currently a Senior Health Scientist at the Centers for Disease Control and Prevention's Division of Vector Borne Infectious Diseases in Fort Collins, Colorado, where he has worked since 1996, and serves as a Principal Research Investigator and Project Officer. He has served as an expert consultant and trainer for the National Security Council, CDC, FBI, FEMA, US Army and numerous state and local health departments including New York City and Washington, DC, as well as for several national ministries of health around the world. He has authored or co-authored 43 scientific publications on vector-borne diseases and is co-author of CDC's emergency response guidelines for plague and tularemia. Ensore has received 25 recognition awards from the US Public Health Service, Department of Health and Human Services, and CDC, including the CDC James H. Nakano Citation for his work as co-discoverer of the rodent reservoirs for two hantaviruses, the DHHS Secretary's Award for bioterrorism response and the CDC Global Health Achievement Award for plague control in Uganda.

**Dr. Lars Eisen:** Dr. Lars Eisen was until very recently an Associate Professor with Colorado State University but is now a Research Entomologist at the Centers for Disease Control and Prevention's Division of Vector Borne Infectious Diseases in Fort Collins, Colorado. He has worked on a wide range of vectors and vector-borne pathogens, including *Ixodes* ticks and Lyme disease spirochetes, *Culex* mosquitoes and West Nile virus, and *Aedes* mosquitoes and dengue virus.