Pre-requisites

This course is designed for public health specialists (e.g., state and county agents, city and town employees, and pest control specialists) who have completed Category 8 certification from the Office of the Indiana State Chemist, training in mosquito identification by the Indiana State Dept. of Health, or who have equivalent background in medical entomology. There are no pre-requisites but a basic understanding of mosquito biology is assumed.

Course Instructors

Drs. Catherine Hill and John MacDonald, Purdue University, Department of Entomology. Between them, Drs. Hill and MacDonald have more than 30 years experience in medical entomology research, extension and teaching. Dr. Hill currently coordinates the Purdue University Public Health Entomology Program.

Course Outline

8:00 - 9:00 Welcome, introduction, course overview

9:00-9:30 Introduction to Mosquitoes & Mosquito-born Diseases
• Global overview of mosquito-borne diseases
• Historical perspective
• Mosquito-borne diseases in the U.S.

10:00-11:00 Mosquito Diversity
• Biological diversity
• Classification & taxonomy
• Major genera in Indiana
• Key species of medical importance
• Demonstrations

11:00-11:15 Break

11:15-12:00 Mosquito Biology
• Internal & external anatomy
• Basic life-cycle
• Mating
• Host location & blood feeding
• Egg development & oviposition

12:00-12:30 Vector Biology
• Development & transmission of pathogens & parasites
• Vector competence & capacity

12:30-1:30 Box Lunch

1:30-2:30 Mosquito Life-cycles & Breeding Sites
• Direct vs. delayed hatching eggs
• Diversity of breeding sites
• Relevance of monitoring to control efforts

2:30-3:30 Tippecanoe County Case Studies
• Impact of rainfall events 2003-2007
• Celery Bog example
• Stockwell example

3:30-3:45 Break

3:45-4:45 Website Demonstrations
• Purdue Public Health Entomology Website
• Mosquito breeding sites educational tool

3:45-5:00 Wrap Up and Course Evaluation
Have you ever wanted to know the answer to one or more of the following questions:

- How do mosquitoes find a host and how do they take a blood meal?
- How do mosquitoes find a mate and where do they mate?
- How do mosquitoes locate a place to lay eggs and where do they lay them?
- How do rainfall events affect mosquito numbers?
- How do mosquitoes transmit disease-causing agents?
- Why are some mosquito species better vectors than others?
- How bad will the mosquito and West Nile virus season be this year?

If you answered YES, then this course might be for you!

Course Description

This is the first in a modular series of advanced 1 day courses on arthropods of medical importance in Indiana. The aim of this short-course is to provide Indiana public health specialists with information needed to answer many of the common questions they receive during the mosquito season. Presentations, demonstrations and case studies will be provided with opportunity for open discussion in a small classroom like environment.

Continuing Education Credits

Course participants will earn 6 CCH’s in Categories 8 and 11 and 4 RT.

Registration

Opens February 4, 2008. A registration fee of $50 will be charged to cover refreshments, and course materials. This course will be limited to 30 participants so please register early!

For More Information Contact

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