



Alabama Vector Management Society

www.alabamavms.org

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November 2005

Seventeenth Annual Meeting March 14-16, 2006

The Seventeenth Annual Meeting of the Alabama Vector Management Society will be held at the Bryant Conference Center, Tuscaloosa, Alabama.

A block of rooms has been reserved for AVMS members until February 8, 2006 at the following hotels:

The Four Points by Sheraton Tuscaloosa Capstone, Tuscaloosa's only full service hotel, is conveniently situated on the University of

Alabama's beautiful campus and located adjacent to the Bryant Conference Center. For reservations at a reduced rate of \$91 per night, please call (888) 627-7070.

The Hampton Inn Tuscaloosa/University

At the Hampton Inns of Tuscaloosa, you will find clean, fresh and comfortable rooms just 3 miles from the Bryant Conference Center on Harper Lee Drive. For reservations at a reduced rate of \$80 per night, please call 205-553-9880

Do not forget to tell them that you are with AVMS!

To register and become a member of AVMS, please fill out the form located on the back of our news letter or visit our website and click on membership.

www.alabamavms.org

We look forward to seeing you there!

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AMCA and FMCA Helps Hurricane Victims

The Mobile County Health Department Vector Control Staff sends their sincerest appreciation to the Florida Mosquito Control Association for the generous donation of \$1000 for mosquito control workers who suffered damage to their homes due to Hurricane Katrina. Our staff was overwhelmed with this heartfelt gesture. The donation was used to purchase Lowe's gift cards for three of our staff members who suffered significant damage to their homes and vehicles. The American Mosquito Control Association working with the Louisiana Mosquito Control Association coordinated additional contributions to mosquito control workers in Mississippi and Louisiana generating more than \$60,000 in relief. We in the Gulf Coast region greatly appreciate the huge outpouring of support from our co-workers and friends in the mosquito control industry.

Dates To Remember

- January 30-February 3, 2006 FMCA Dodd Short Courses Gainesville, Fla.
- Feb. 26-Mar. 2, 2006 AMCA 72nd Annual Meeting Detroit Michigan
- March 14-16, 2006 AVMS Annual Meeting Tuscaloosa, Alabama

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2005-2006**

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Officer and Board Member Elections

Please be aware that during the AVMS Annual Meeting, we will be electing the Officers and Board for the upcoming year. The President Elect and two Directors positions need to be filled. If you would like to serve, please contact Gary Mullen at 334-844-2554 or any of the current AVMS Directors. Nominations will be accepted from the floor during the business meeting as well. Remember, this is your society...come and play an active part!

The following nominations have been accepted thus far:

Rachel Jennings - President Elect

Matthew Smith - Director

Lynn Scott - Director

NPMA hosts Mosquito Misting Forum

FAIRFAX, Va. — The National Pest Management Association (NPMA) will host a “Mosquito Misting System Stakeholder Forum” on Dec. 13 in Fairfax, Va., in conjunction with the American Association of Pesticide Control Officials, the Association of Structural Pest Control Regulatory Officials and the U.S. Environmental Protection Agency.

The forum is designed to encourage responsible regulatory policy concerning mosquito misting systems.

Mosquito misting systems are a new technology that emerged in response to the spread of mosquito-borne West Nile Virus in the last half dozen years. The systems are typically installed in the eaves of residential and commercial properties and dispense a fine mist of adulticides during the time of day in which mosquitoes are active.

Their purpose is to reduce the population of mosquitoes in the area immediately adjacent to the treatment.

Since the emergence of the technology, state and federal regulators have expressed a number of regulatory concerns about the systems, including advertising claims made by the companies that manufacture, distribute and install the systems. There are also regulatory concerns about human exposure to the pesticides dispensed by the systems, effects on non-target species, increased resistance to adulticides, licensing, certification and training of individuals selling and installing the systems and issues related to the storage and disposal of pesticides dispensed by the systems.

Anybody may attend the free forum, but attendees must register in advance. To register, contact Jillian Bevard at 703-352-6762 or by e-mail at jbevard@pestworld.org.

Three Important Mosquitoes to Know:

Aedes aegypti, *Aedes albopictus* and *Ochlerotatus japonicus*

By Nathan Burkett Auburn University

All mosquitoes look alike, right? This may seem true if it's dusk and you're examining specimens which you've just slapped against your ankle. However, if you ever take a really close look (maybe under a microscope or with a magnifying glass) you'll see that mosquitoes can vary greatly. In fact the usual way of telling one species from another is by examining the various bands, stripes, and spots that adorn their bodies. Most people who work with mosquitoes acknowledge the importance of knowing which species are around you (or on you). For instance, if you're working in abatement then knowing whether the mosquito that's biting your customer is a container-breeder versus a marsh-breeder could save you more than a few dollars on larvicide.

In Alabama there are about 60 different species of mosquitoes to contend with. These range from the beneficial "cannibal mosquito" *Toxorhynchites rutilus*, which as a larva preys upon other mosquito larvae, to the infamous "Asian tiger mosquito" *Aedes albopictus*, a mosquito of major medical importance. As common and ubiquitous as this menace is throughout Alabama, it's a rather recent arrival to our state. It was introduced to Texas in 1985 in a shipment of used automobile tires. Since then it has spread throughout the Southeast. It's not the only import mosquito in Alabama, however. *Aedes aegypti*, the "yellow-fever mosquito" was introduced from the Old world in the days of European colonization of North America. It most likely arrived to our land as larvae in water cisterns aboard slave ships from Africa. Another very recent immigrant mosquito is *Ochlerotatus japonicus*, the Japanese encephalitis mosquito. In June of this year TVA medical entomologist, Kristy Gottfried, reported the arrival of this mosquito in northern Alabama. It is native to the Orient and entered the US via New York.

So what else do these 3 species of imported mosquitoes have in common? They are all vectors of deadly viruses (at least in some part of the world), they are all container-breeders, and they all look somewhat similar: black and white/silver mosquitoes each with striking dark and light

stripes over much of their bodies. Luckily these 3 mosquito species differ enough in body ornamentation to tell them apart. The dorsal portion of the insect thorax is known as the scutum, and patterns on the scutum are often characteristic of a particular species. The figures below illustrate the different patterns on the scutum of each of the 3 species discussed above, as well as *Ochlerotatus triseriatus*, a native container-breeding mosquito with comparable color patterns. *Aedes aegypti* is generally described as having a pattern on its scutum in the shape of a lyre, or harp, a musical instrument used by the ancient Greeks (Figure 1). This lyre-shaped pattern consists of 2 white stripes to either side of the midline which are partially surrounded by another wider white stripe (Figure 2A).

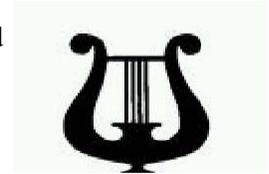


Figure 1. A lyre



2A

Aedes aegypti



2B

Ochlerotatus japonicus

Figure 2. Thoracic patterns of *Aedes aegypti* and *Ochlerotatus japonicus*

Of the other 3 species discussed here, *Ochlerotatus japonicus* has markings which are most similar to those of *Aedes aegypti*. *Ochlerotatus japonicus*, however, has a wide yellowish-white stripe down the middle of its scutum with 2 light stripes to either side (Figure 2B). Like *Aedes aegypti*, these stripes are partially surrounded by another wider light-colored stripe.

Aedes albopictus has a single broad white stripe down the middle of its scutum making this species stand out from the others (Figure 3A). In contrast, *Ochlerotatus triseriatus* has

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pale silvery-white stripes along the lateral margins of its scutum with a broad dark stripe down the middle (Figure 3B).

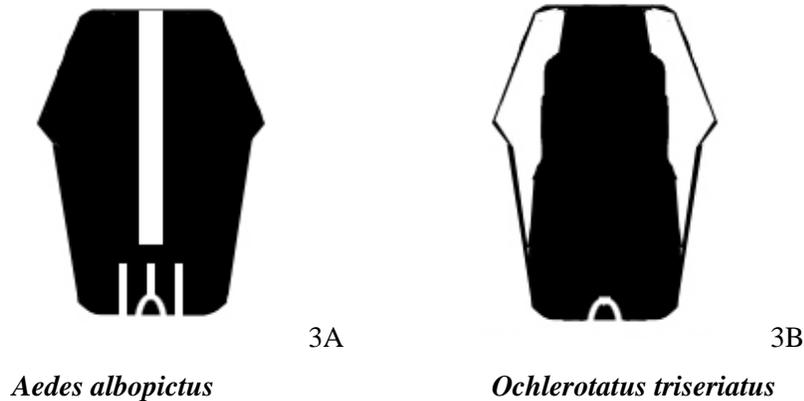


Figure 3. Thoracic patterns of *Aedes albopictus* and *Ochlerotatus triseriatus*

While these mosquitoes seem to color-coordinate their attire, they don't exactly match in every respect. For example, *Ochlerotatus triseriatus* has solid black legs whereas the other 3 species have legs with black and white bands. However, the real important difference between these mosquitoes (as far as we are concerned) is in the viruses they can transmit.

Ochlerotatus japonicus is the major vector of Japanese Encephalitis virus in its native range, but a lot of concern has been expressed by health officials in the potential that it may have to transmit other viruses to humans, such as West Nile virus. *Ochlerotatus triseriatus* is the primary vector of La Crosse Encephalitis virus in the Midwest. Both *Aedes albopictus* and *Aedes aegypti* are vectors of viruses causing yellow fever and dengue in the tropics. Each year cases of these diseases are diagnosed on U.S. soil, usually in travelers and immigrants. In addition, *Aedes albopictus* has been shown to transmit more than 20 viruses, including West Nile virus, in laboratory experiments.

Knowing which mosquito foe you are fighting is important, so keep an eye out for these black and white biters and see if you can tell the difference between them.



CODE OF ETHICS FOR MEMBERS OF THE ALABAMA VECTOR MANAGEMENT SOCIETY



Preamble: The purpose of the Alabama Vector Management Society is to promote the management of public health pests and arthropod vectors of disease, provide for the educational and scientific advancement of members, encourage scientific research in vector management and public health pests, promote an exchange of information among members, and to extend and develop public awareness and interest in the discipline.

Public health pest and vector management provides services that are extremely important to the health, welfare and progress of society. Those employed in the public health pest and vector management profession have the responsibility to render effective and professional service to humanity, in keeping with high standards of ethical conduct. Therefore, in striving to advance and maintain the honor and dignity of the profession, the Alabama

Vector Management Society (AVMS) has established the following code to define the conduct and ethics due the profession. This code is binding on the membership of the AVMS.

- AVMS members will use their knowledge and skill for the betterment of human welfare.
- Members will, at all times, strive to maintain the public trust, and advance the standards and principles established by the AVMS.
- Members will cooperate in the exchange of information and technology for the growth and progress of the public health and vector management profession and the AVMS.
- Members will not cause dishonor to the Society through their actions while representing the AVMS.
- Members will comply with all laws and regulations that apply to our science and profession.
- Members will promote solidarity, harmony and support among members and fellow workers. They will not undermine, vilify, berate or otherwise intentionally injure the work, accomplishments, efforts or professional reputation of another.
- Members will not conduct or in any way participate in a fallacious review of the work of a fellow worker or other member.

Send us your interesting articles, comments or suggestions to:

Jeff Beck –Editor AVMS
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We are in the process of making the Newsletter available electronically and hope to speed delivery of the Newsletter and eventually reduce printing and mailing costs. Please let us know if you would like to receive the electronic version or not by sending us your e-mail. admin@alabamavms.org

The AVMS is grateful to have the support and sponsorship from industries. Below is a list of sustaining members.

Adapco Inc. 1-888-400-9085	Bell Laboratories 608-241-0202
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ALABAMA VECTOR MANAGEMENT SOCIETY
ANNUAL MEETING REGISTRATION FORM

NAME: _____
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Mail to: Paula Pratt
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- PRE- REGISTRATION (BEFORE MARCH 1 1006) \$60.00
 REGISTRATION (AFTER MARCH 1, 1006 OR ON SITE) \$75.00
 STUDENT REGISTRATION \$25.00
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MAKE CHECKS PAYABLE TO:

Alabama Vector Management Society

I UNDERSTAND THAT, AS A MEMBER OF THE AVMS, I AM EXPECTED TO ADHERE TO THE AVMS CODE OF ETHICS.

*Registration/Membership dues are for AVMS membership year 2006.ALABAMA VECTOR MANAGEMENT SOCIETY



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