



# Alabama Vector Management Society

www.alabamavms.org

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September 2011

## 23rd annual AVMS meeting date set

The AVMS executive board has set the dates for its 23rd annual conference. It will be held at the Fairfield Inn and Suites in Orange Beach, AL, the same location as the meeting in 2011.

Mark your calendars now for March 13 and 14, 2012. More details coming in the January newsletter!

## NPDES Permitting Deadline Approaches

It appears that the requirement for mosquito control programs to work under the National Pollutant Discharge Elimination System (NPDES) permitting system will go into effect on October 31, 2011. Most mosquito control programs should be preparing to file a Notice of Intent (NOI) with ADEM to work under a Pesticide General Permit.

Secondly, most mosquito control organizations should have a final draft of their Pesticide Discharge Management Plan (PDMP) by the October 31 dead-

line. You may contact AVMS Editor Ashley Lovell for a sample PDMP.

Eligible operators must submit a NOI to ADEM if they exceed the annual treatment thresholds detailed in the table on page 5. For more information and calculation parameters, contact Dale Mapp at ADEM at 334-394-4399 or [dpm@adem.state.al.us](mailto:dpm@adem.state.al.us). Or visit <http://adem.alabama.gov/newsEvents/notices/mar11/pdfs/3npdes-special.pdf>.

### INSIDE THIS ISSUE

23rd annual meeting date set	<b>1</b>
Officers and board members	<b>2</b>
Sustaining members	<b>2</b>
Code of ethics	<b>2</b>
Scorpion sting antidote approved	<b>3</b>
Feral swine hunters and swine brucellosis	<b>4</b>
Renew pesticide applicator permit online	<b>5</b>
New strategy for rabies vaccination in wildlife	<b>6</b>
Vector Spotlight: Wheel Bug	<b>7</b>

### Dates To Remember:

#### **October 31, 2011**

Deadline for obtaining NPDES Permit from ADEM

**March 13-14, 2012** 23rd Annual AVMS Conference at Fairfield Inn and Suites, Orange Beach, AL

### **ATTENTION! You may now renew your commercial or certified pesticide applicator license online!**

Visit the web site [https://www.alabamainteractive.org/adai\\_commercialRenewal/welcome.action](https://www.alabamainteractive.org/adai_commercialRenewal/welcome.action)

Enter your new permit number and password provided from the ADAI, and the web site will guide your through the renewal process. You may also check your educational points earned on this site.

See more information on page 5 of this newsletter.



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**The AVMS is grateful to have the support of 2010-2011 Sustaining Members**

Sustaining Member	Phone #
Central Life Sciences/Zoecon	256-527-9904
Gil Manufacturing Inc.	334-284-8111
Univar USA	251-666-5995
AllPro Vector Group	888-603-1008
ADAPCO Inc.	888-400-9085
Valent Biosciences	813-505-8852
Clarke	601-594-0305
Bayer Environmental Science	919-549-2534
Vector Disease Control Inc.	800-413-4445

**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.

## FDA Approves First Scorpion Sting Antidote

“Once stung, twice shy” are words to live by in the Southwestern United States, where about 11,000 people a year are stung by scorpions in Arizona alone.

Though rarely life threatening, scorpion stings can be extremely painful, causing numbness and burning at the wound site. And there’s been little a victim could do to ease the pain.

Until now.

The Food and Drug Administration has just approved the first treatment specifically for the sting of the *Centruroides* scorpion, the most common type in the United States.

The new biologic treatment—called Anascorp—was given a priority review because adequate treatment did not exist in the United States, says Karen Midthun, M.D., director of the FDA’s Center for Biologics Evaluation and Research.

“This product provides a new treatment for children and adults and is designed specifically for scorpion stings,” Midthun says. “Scorpion stings can be life-threatening, especially in infants and children.”

Severe stings can cause loss of muscle control and difficulty breathing, requiring heavy sedation and intensive care in a hospital. Most often, it’s small children who experience severe reactions, but adults can be affected, too, says Keith Boesen, managing director of the Arizona Poison and Drug Information Center (APDIC).

Boesen says Arizona’s two poison centers document about 11,000 scorpion stings each year; 17,000 stings were reported to U.S. poison centers nationwide in 2009.

“We at the APDIC and University of Arizona College of Pharmacy are very excited (about Anascorp’s approval). I am proud of the expertise of the pharmacists and physicians working at the APDIC who helped make this research possible,” he says.

Anascorp was developed in Mexico and has been used there for many years, according to University of Arizona researchers who led the U.S. study of the drug. It’s made from the plasma of horses immunized with scorpion venom and vaccinated against viruses that could infect humans. Researchers began studying the drug in Arizona hospitals in 2004 and found it to be highly effective against the sting of the bark scorpion (also called the Arizona bark scorpion)—the most poisonous scorpion in the U.S.

Without Anascorp, children experiencing the most severe symptoms usually had to stay in intensive care in the hospital for several days; but when Anascorp was administered, researchers found patients’ symptoms disappeared after a few hours in the emergency room—eliminating the need for a hospital stay.

The Arizona Poison and Drug Information Center says most stings to healthy, young adults can be managed at home with basic first aid and follow-up. Victims should:

- clean the site with soap and water
- apply a cool compress
- elevate the affected limb to the same level as your heart
- take aspirin or acetaminophen as needed for minor discomfort

If a child is stung or the victim experiences severe symptoms, go to a medical facility immediately. If the child is under 5 years old or if an older patient is experiencing more than minor discomfort, call the poison center at 1-800-222-1222.

Experts say desert dwellers should know the symptoms of a scorpion sting and get treatment if severe symptoms develop. Severe symptoms include shortness of breath, fluid in the lungs, breathing problems, excess saliva, blurred vision, slurred speech, trouble swallowing, abnormal eye movements, muscle twitching, thrashing of the arms and legs, trouble walking, and other, uncoordinated muscle movements.



This article appears on FDA's Consumer Updates page, which features the latest on all FDA-regulated products.  
Released August 3, 2011

# Feral swine hunters should use caution when field dressing harvests

By Wesson Gaston, USDA APHIS Wildlife Services

Feral swine are invasive mammals that have been known to carry over 30 diseases and 37 parasites that can be transmitted to livestock, people, pets, and wildlife. Their populations are spreading like wild fire across the United States through population dispersal, escape from high fence facilities and domestic operations, as well as relocation by humans for hunting purposes. Free-ranging populations have been documented in at least 39 states.

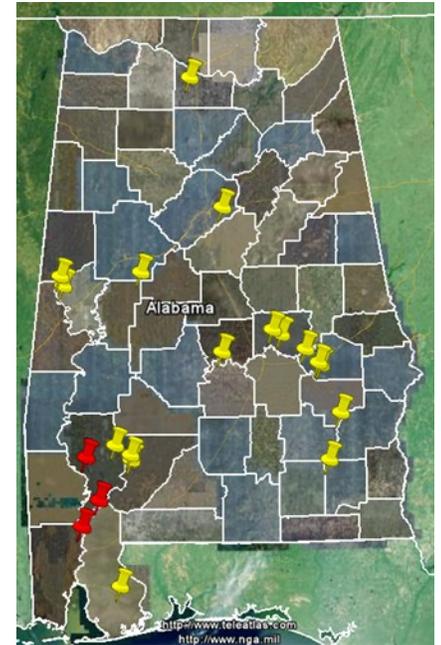
The USDA-Wildlife Services National Wildlife Disease Program tests feral pigs for classical swine fever (CSF), pseudorabies (PRV), swine brucellosis (SB), swine influenza virus (SIV), hepatitis E (HEV), toxoplasmosis, trichinosis, foot and mouth disease (FMD), and African swine fever (ASF). CSF, FMD, and ASF are foreign animal diseases that are not present in the United States. If these diseases were introduced into the U.S., it would have a significant impact on domestic pork production and exports. With the increased risk of transmission from wild herds to domestic herds, an increase in bio-security methods have been implemented by domestic producers to insure that the chance of spill-over is kept at a minimum.

An important disease that feral pigs can transmit to humans is swine brucellosis. This is a bacterial disease that is transmitted through reproductive discharges, particularly the afterbirth from infected sows or in semen from infected boars. Infected swine are disease carriers for life with no effective treatment. Hunters are especially at risk when field-dressing wild pigs. They should take the following precautions when field dressing wild pigs and other game:

- Always wear disposable rubber or plastic gloves when handling or cleaning wild pigs and avoid direct contact with blood and reproductive organs.
- After cleaning/butchering the animal, wash hands and arms thoroughly with hot water and antibacterial soap.
- Discard gloves properly after use.
- Cook meat thoroughly.



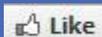
Photo by David Beaty, USDA Wildlife Services



Distribution of feral swine captured and sampled for swine brucellosis in Alabama in 2011. Red indicates positives.

Graphic provided by USDA Wildlife Services

Only 4 out of 100 (4%) collected feral pigs tested positive for swine brucellosis in Alabama through the National Wildlife Disease Program this year. Two tested positive in Clarke County, 1 in Mobile County, and 1 in Baldwin County. All of these samples occurred along the Tombigbee and Mobile waterways. This is lower than last year's results of 5/55 (11%) testing positive. Because the sampling is not random, infection rates cannot be compared. However, results of 10-12% infection rates or less have been found in the literature in other southeastern states.



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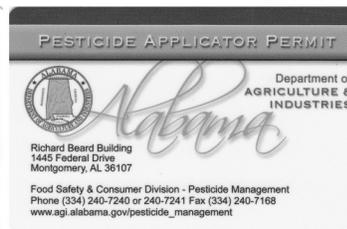
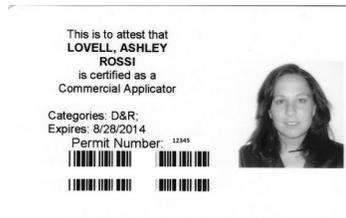
Stay up-to-date! Find "Alabama Vector Management Society" on Facebook and click the "like" button! Submit photos of insects for identification, keep in touch with members of your AVMS board, and suggest the page to your friends!



# Alabama Dept. of Ag and Industries offers on-line renewal and payment for Certified and Commercial Pesticide Applicator Licenses

By Ashley Lovell, Editor

ADAI has stepped into the future by offering an online renewal option for pesticide applicator licenses. It has also updated permit numbers and the look of the license itself. The process is relatively painless, although take care never to hit the “back” browser button or re-submit credit card information, EVEN if the site warns you that there was an error transmitting your card number. Your card may, in fact, be charged multiple times, and getting a timely refund



is impossible. Visit [https://www.alabamainteractive.org/adai\\_commercialRenewal/welcome.action](https://www.alabamainteractive.org/adai_commercialRenewal/welcome.action) to renew or to check your point totals. I was able to see that I was short 10 points and take a quick course to bring my point total to 30 in order to renew. There are several last-minute courses available at the Alabama Green Industry Training Center (AGITC) in Shelby County for \$42. Visit <http://www.agitc.org/> or the ADAI website for more course options.

Now is the time to order your 2012 Calendars.

Visit <http://www.allenwayne.com/skeeter/> to order your mosquito materials today!

**AMCA**  
THE AMERICAN MOSQUITO CONTROL ASSOCIATION

Visit the Skeeter Store to view all the outreach materials

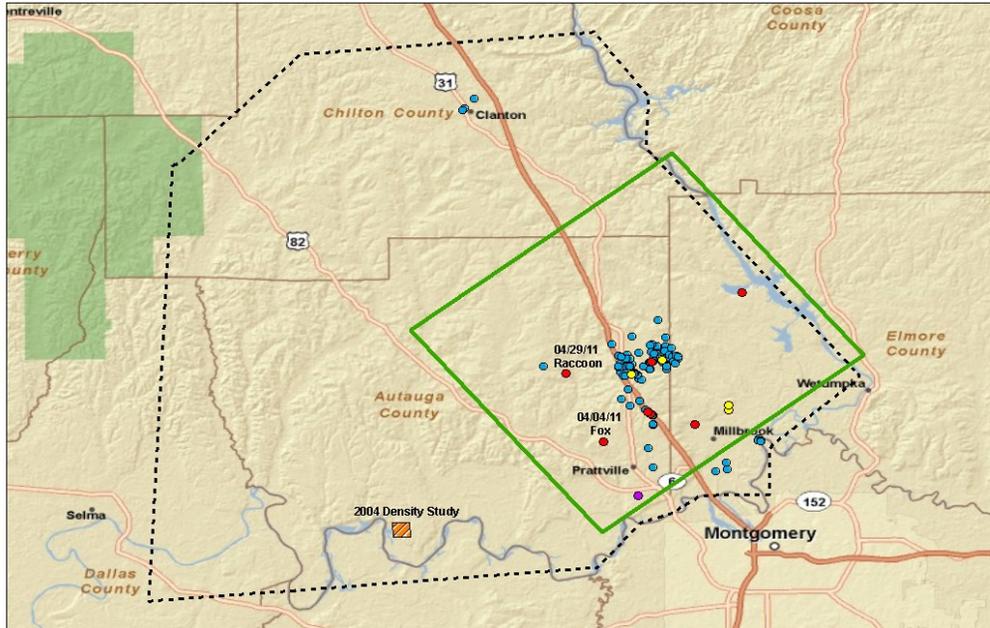
## Reminder! You need an NPDES permit from ADEM if you exceed these thresholds:

Annual Treatment Area Thresholds		
PGP Part	Pesticide Use	Annual Threshold
II.B.1	Mosquitoes and Other Flying Insect Pest Control	6400 acres of treatment area
II.B.2	Weed and Algae Control:	
	- In Water	100 surface acres of water
II.B.3	- At Water's Edge:	100 linear miles of treatment area in waters of the State or at water's edge
	Nuisance Animal Control:	
II.B.4	- In Water	100 surface acres of water
	- At Water's Edge	100 linear miles of treatment area in waters of the State or at water's edge
II.B.4	Forest Canopy or Other Area-Wide Pest Control	6400 acres of treatment area



## New Oral Rabies Vaccine (ORV) baiting strategy known as “pulse baiting” to address recent raccoon-variant rabies positive cases in Central Alabama

By Dana Johnson, USDA Wildlife Services



**2010 - 2011 Alabama Contingency Action**  
Autauga and Elmore Counties

United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Wildlife Services  
National Rabies Management Program



- 2011 Positives
- 2010 Positives
- 2009 Positives
- 2010-2011 Negatives
- ▭ 2011 Proposed Pulse\_y1
- ▭ FY2005 ORV Zone

Graphic by Jordona Kirby, USDA APHIS WS

strategy in early fall. Pulse baiting will involve aerielly distributing oral rabies vaccines for raccoons and other wildlife by hand from helicopters at a rate of 8 vaccine baits per 13 seconds in habitat that is attractive to raccoons. The proposed pulse baiting area will encompass roughly 400 mi<sup>2</sup> in Elmore, Autauga and Chilton counties and will include locations where positive cases have been detected as well as areas to the north and west.



Previous studies in the area have identified local raccoon population densities, and baiting rates have been adjusted based on those results. The timing and baiting rates of pulse baiting are also adjusted to increase bait uptake in the juvenile raccoon population that still travels with adults in family groups in the early fall. Coated sachet baits will be used in this strategy as they are easier for juveniles to puncture and ingest. In a 4-8 week span following the distribution of baits, biologists will capture raccoons within the bait zone, collect a blood sample and biological information, tag and release animals. Rabies titer levels will be examined to determine the percent of the population that received immunity from the vaccine.

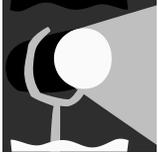
Since intensive oral rabies vaccination (ORV) efforts were conducted in central Alabama in 2005, new rabies cases in raccoons and foxes have popped up in Elmore and Autauga counties, areas that were considered to be raccoon-rabies-free. The USDA is considering these positive cases as “breaches” of the Alabama-Coosa river system, a natural, geographic “barrier” for the endemic occurrence of raccoon-variant rabies within Alabama.

As part of a nation-wide contingency action to halt new cases in previous rabies-free areas, USDA WS plans to use a newly-studied “pulse baiting”



Coated sachet bait containing genetically-modified vaccinia virus to resemble rabies. Photo provided by Joanne Maki, Merial

**Report sick carnivores from yellow areas in map at above left to your local CHD or USDA WS @ 1-888-RABIES4**



## Vector Spotlight: “Wheel Bug”

SCIENTIFIC NAME: *Arilus cristatus*

By Nathan D. Burkett-Cadena, AVMS member

The wheel bug is a large, predatory insect native to North America and is a common inhabitant of gardens and yards. Wheel bugs get their common name from the large, rounded extension of the exoskeleton that protrudes from the dorsal thorax. This wheel-shaped extension is said to resemble a cog or gear embedded in the insect's back. The body of wheel bugs is usually gray with brownish legs and antennae. The head is long and slender and has a long “beak” which it uses to stab its prey (mostly caterpillars and other soft-bodied insects) and then drink the prey's bodily fluids. The “beak” is folded under the head at rest, but is held downward or in front of the head during feeding.



Adult wheel bug preying upon a bottle fly. Photo by Nathan D. Burkett-Cadena, AVMS member

Many people only learn about wheel bugs after being bitten by one. While humans are far too large to be preyed upon by a wheel bug, these bold insects are not above biting to defend themselves or out of “curiosity”. People are usually bitten as they put on a glove or boot that has a wheel bug inside it. The bite is described as being quite painful, but is not considered dangerous to people unless a severe allergic reaction occurs. The bite from a nymph can be equally painful.

Adult wheel bugs are seen in summer and autumn. After mating and laying eggs the adults will die. The eggs will pass the winter and hatch the following spring. The nymphs (immature stages) will grow and mature through the spring and summer, completing the life cycle.



Wheel bug nymph close-up. Photo by and (c)2007 Derek Ramsey, GFDL v.1.2 license applies

Wheel bugs belong to the family Reduviidae, a group that also includes the “kissing bugs”, so called for their habit of biting people on the lips and face while they sleep. Kissing bugs, unlike wheel bugs, are parasitic and feed on the blood of mammals (including humans) and birds. Kissing bugs of tropical America (Mexico through Argentina) can transmit a parasite that causes a deadly disease: Chagas disease. The parasite that causes Chagas disease is passed to humans through the feces of kissing bugs. As the bugs feed, they defecate. The parasite-laden feces is then accidentally scratched or rubbed into the bite site by the person being bitten.

Thankfully, wheel bugs do not feed on blood and do not carry the parasite that causes Chagas disease. In fact, since wheel bugs prey upon plant-feeding insects such as caterpillars and Japanese beetles, many people consider wheel bugs as beneficial and welcome them in their gardens. For some people, protecting their roses from Japanese beetles may be worth the bite of a wheel bug.

**ALABAMA VECTOR MANAGEMENT SOCIETY  
MEMBERSHIP FORM**

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AFFILIATION: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
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DLockhart@central.com

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 STUDENT MEMBERSHIP ONLY (2011-2012 DUES) \$5.00  
AMOUNT ENCLOSED \_\_\_\_\_

**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*



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