

# Buzz Words



The Newsletter of the Florida Mosquito Control Association  
Mar/Apr 2009

Volume 9, Issue Number 2

**South Carolina Mosquito Control Association  
2009 Annual Meeting  
Hickory Knob State Resort Park  
McCormick, SC  
November 4 - 6, 2009  
<http://www.scmca.net> for more information**

**Florida Mosquito Control Association  
81<sup>st</sup> Annual Meeting  
Hyatt Regency Tampa  
November 8 - 11, 2009  
[www.floridamosquito.org](http://www.floridamosquito.org) for more information**

**Northeastern Mosquito Control Association, Inc.  
55<sup>th</sup> Annual Meeting  
Sturbridge Host Hotel, Sturbridge, MA  
December 2 - 4, 2009  
[www.nmca.org](http://www.nmca.org) for more information**

## News from PHEREC

"PHEREC News" Vol. 10, Number 1 is now available online at:

<http://www.pherec.org/PHERECNews/Vol10No1/PHERECNewsVol10No1.pdf>

or simply go to the PHEREC web site and click on "newsletter." A review article by Dr. James Cilek on

backyard misting systems for mosquito control has been published in "Pest Control Technology Online" at <http://www.pctonline.com>. Another article by Dr. John Smith on the "Florida Contract Mosquito Control Research Program" has been published in "Wing Beats."



## T. Wainwright Miller, Jr. FMCA Scholarship Application

**The Florida Mosquito Control Association Foundation is now accepting applications for the T. Wainwright Miller, Jr. Florida Mosquito Control Association Scholarship.** The purpose of the Scholarship is to encourage and assist students having a major in Biological, Ecological and/or Entomological studies who are seeking degrees relevant to arthropod control, with particular emphasis on Public Health fields. First place recipients will receive a one-time scholarship award of \$2,000.00, while second place recipients will receive \$500.00.

**The following criteria have been established to choose qualified applicants for the award:**

1. The student shall be an undergraduate or graduate. Undergraduates will have completed at least two years of academic study with a minimum of 30 credit hours.
2. The student shall be a United States citizen residing in the state of Florida.
3. Undergraduates shall have maintained an overall grade point average of 3.0 (out of 4.0) during the last 2 years of academic study. Graduate students must have completed at least one full semester of graduate course work and shall have a grade point average of 3.0 or higher (out of 4.0) for all graduate course work completed by October 15, 2009.
4. The student shall be enrolled in an accredited College or University in the state of Florida.
5. The student shall be majoring in a field of study having relevance to arthropod control and/or public health.
6. The student shall submit three letters of recommendation, two of which are from professors affiliated with an accredited College or University in which the student is enrolled.
7. The student shall be encouraged to seek summer employment with a local mosquito control district for at least one summer during the award period.
8. The scholarship recipient will be provided a gratis membership in FMCA during the period of the award. The recipient is expected to attend at least one of the two annual Florida Mosquito Control Association meetings. Graduate student recipients will be required to present a paper on their research during an FMCA meeting.

### PROCEDURE FOR SUBMITTING APPLICATION

**Four copies of application materials should be mailed to the Executive Director, Kellie Etherson, Florida Mosquito Control Association, P.O. Box 358630, Gainesville, FL 32635-8630 and postmarked on or before October 15, 2009.**

**A completed application must contain the following:**

1. Name, address, telephone number of applicant, University or College where enrolled, major, overall grade point average, grade point average in major, and number of credit hours completed.
2. Statement from the student concerning interest in public health entomology, career goals, and other factors pertinent to scholastic ability which illustrate qualifications for the scholarship (limited to two typewritten pages [single or double-spaced] on one side only).
3. Three typewritten statements from three persons (two of which from professors from the person's academic institution) who are knowledgeable individuals attesting to entomological interests, character and aptitude.
4. An original copy of current official transcripts of college grades (this may be sent separately). Send only one set of original transcripts per application package.
5. Proof of current enrollment at a Florida College or University.
6. One photograph (black and white, passport size) per application package.

# Florida Mosquito Control Association – 81<sup>st</sup> Annual Meeting

## FIRST CALL FOR PAPERS

Hyatt Regency Tampa - Two Tampa City Center - Tampa, FL 33602

813.225.1234

November 8 – 11, 2009

You are invited to submit a title for a paper to be presented at the 2009 81<sup>st</sup> Annual Fall Meeting of the Florida Mosquito Control Association, to be held at the Hyatt Regency Tampa, Two Tampa City Center, Tampa, FL from November 8 -11, 2009. Type the title, author(s), organization(s), and address (es) exactly the way they are to appear on the program. If more than one author is listed, place an asterisk after the name of the author who is to present the paper. **Send this form to Shelly Redovan, Lee County Mosquito Control District, PO Box 60005, Ft. Myers, FL, 33906, E-mail: [redovan@lcmcd.org](mailto:redovan@lcmcd.org), Telephone: 239.694.2174; FAX: 239.694-6959. On-line submissions can be submitted at: <http://www.floridamosquito.org/FallMeeting2007/form1/index.html>. Paper submission deadline is September 1, 2009.**

**TITLE:** \_\_\_\_\_  
\_\_\_\_\_

**AUTHOR:** (INCLUDE E-MAIL, TELEPHONE AND FAX NUMBERS OF PRESENTER)

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**ORGANIZATION:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**MAILING ADDRESS:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**REQUESTED DURATION OF PRESENTATION:** \_\_\_ 10 min \_\_\_ 15 min \_\_\_ Symposium \_\_\_ Other

**AUDIO/VISUAL EQUIPMENT REQUIRED:** \_\_\_ Slide \_\_\_ LCD \_\_\_ Overhead \_\_\_ Other (please specify)

**PAPER CATEGORY:** \_\_\_ Research \_\_\_ Operations \_\_\_ Regulatory \_\_\_\_\_ Other (please specify)



## OVERVIEW OF PRACTICES OF THE INDIAN RIVER MOSQUITO CONTROL DISTRICT March 2009

**ORGANIZATIONAL OVERVIEW.** The Indian River Mosquito Control District (IRMCD) was the first mosquito control program in Florida, legislatively created as an independent taxing district in 1925. IRMCD has 3 elected commissioners (Janice Broda, David Foster & Keith Hedin), 27 full-time and several part-time employees. The average length of employment is approximately 11 years. The professional staff includes the Executive Director, a Research Entomologist, a Medical Entomologist and two Biologists. IRMCD's budget is approximately \$5.0 million with most of that generated by ad valorem property taxes. IRMCD is a sustaining member of the Florida Mosquito Control Association (FMCA), the American Mosquito Control Association (AMCA) and the Florida Association of Special Districts (FASD). IRMCD participates in the Environmental Protection Agency's Pesticide Environmental Stewardship Program (PESP) by being a "PESP partner under the AMCA's auspices".



Indian River Mosquito Control  
District Administration & Labs  
Building

**GROUNDS, BUILDINGS AND EQUIPMENT.** IRMCD's current facilities (on 10 acres of property located at 5655 41<sup>st</sup> Street, Vero Beach, FL) were originally constructed in 1967 with significant additions and renovations undertaken during 2000. Additional shop/storage facilities were completed in 2006. The buildings include a main office with laboratories, shop, vehicle work bays, chemical (and general) storage rooms, covered vehicle and equipment storage areas and a poultry raising/holding building. IRMCD has over 30 vehicles (including 4WD pickup trucks, an F-450 truck, 3 dump trucks, a crane truck, sedans, and a full size van) which are regularly used in carrying out IRMCD's responsibilities. IRMCD also maintains approx. 12



This pontoon boat is one of several  
watercraft used for inspection work



Nine larvicide trucks & ATVs are used  
for inspecting along the  
Indian River Lagoon

all-terrain-vehicles (ATVs) which are used by the Entomological Inspectors for field inspections, ground treatments and herbicide applications. Concerning heavy equipment, IRMCD owns a Case 580L Tractor/Loader/Backhoe, a New Holland 3930 Tractor/Loader, a Kubota M7040 Tractor, two ASV rubber-tracked loaders, a gasoline-driven forklift, a portable diesel-driven trailer-mounted pump, 1 portable electric-driven trailer-mounted pump, a portable diesel power unit and 13 permanently mounted electric pumps (located at various locations along the Indian River Lagoon). IRMCD operates 4 power boats - an airboat (14 ft. aluminum hull w/225 HP V-6 Chevy marine motor), a 2008 SEAARK 1660 MV boat (16 ft. aluminum hull w/40 hp outboard motor), an 18 ft. aluminum pontoon boat with 50 hp outboard motor



and a Gheenoe (13 ft. fiberglass hull w/5 hp. outboard motor). A kayak is also used for locations along the lagoon that are difficult to access. All four boats are used primarily for larval inspections.

**IPM APPROACH TO CONTROL ACTIVITIES.** Like most mosquito control programs in the United States, IRMCD uses an Integrated Pest Management (IPM) approach for control efforts, integrating source reduction, larviciding and adulticiding to control mosquito populations. In addition to control activities, IRMCD participates in research projects as needed and regularly publishes the results of such research in peer-reviewed scientific journals. Such research is frequently a collaborative effort with scientists at the University of Florida's Florida Medical Entomology Laboratory (FMEL) in Vero Beach or the Florida A&M University's John A. Mulrennan Public Health Entomology Research and Education Center (PHEREC).

**SOURCE REDUCTION.** IRMCD's salt marsh source reduction efforts are largely focused along the Indian River Lagoon, managing 30 impoundments totaling 2640 acres. Impoundments are salt marshes around which dikes were constructed in the 1950's and 1960's. Primarily during the spring and summer months, water is pumped from the lagoon onto the surface of the impounded marsh. Because salt-marsh mosquitoes lay their eggs on moist soil but not on standing water, putting water over the marsh surface eliminates locations where mosquito egg-laying can occur thus effectively eliminating mosquito production from the marsh. For the remainder of the year, the marsh is typically not managed and, where possible, is reconnected to the lagoon through culverts thus providing conditions that allow for near-natural habitat for fish and wildlife. This impoundment management technique is known as Rotational Impoundment Management (RIM). Managing these impoundments for both mosquito control and natural resource interests is done in cooperation with several agencies responsible for fish and wildlife resources (e.g., U.S. Fish and Wildlife Service, St. Johns River Water Management District, and Fla. Dept. of Environmental Protection). IRMCD maintains 12 stationary electric pumps and two-6000 gpm portable pumps in order to fill the impoundments. Dike and water control structure maintenance is accomplished largely with a Case 580L Tractor/Loader/Backhoe, two ASV rubber-tracked loaders or a Kubota M7040 HDC Tractor. The portable pumps are moved among impoundments typically using a utility truck. Another IRMCD source reduction project is the collection and disposal of waste tires which are capable of producing several freshwater mosquito species. Since beginning this program in 1993, IRMCD employees have collected and disposed of approximately 64,460 waste tires from around the District or enough tires to cover 65 football fields.

**LARVICIDING.** IRMCD uses several larvicides in various formulations including Abate, *Bti* and



One of 9 ULV trucks with a GPS guidance system

methoprene (Altosid). IRMCD has a crew of 10

individuals responsible for inspecting marshes along the lagoon and treating larvae when present from ATVs, typically using liquid *Bti* or temephos (Abate). Inspection and treatment information is recorded in a computerized database. When large areas need larval treatment, a local flying service (Southeastern Aerial Crop Services, Ft. Pierce, FL) is subcontracted to make these applications with fixed-wing aircraft. Aerial treatments are made

with granular *Bti* (on corncob), methoprene on sand (Altosand), or Abate granules. The 35-year aerial



ATVs are used for inspection and treatment along the lagoon

larviciding average totals 11,500 acres per year. In contrast, the most recent 5-year average is 26,803 acres per year. In some limited areas, slow-release formulations of Altosid or Abate are used to provide long-term control of salt-marsh mosquitoes.

**ADULTICIDING.** IRMCD's primary method of adulticiding is 9 truck-based ULV units applying permethrin. The yearly mileage over the past 35 years averaged 10,500 miles. However, the most recent 5-year average is 7,441 miles per year. During widespread mosquito outbreaks or during a medical emergency when there exists a threat to the public from a mosquito-transmitted pathogen (*e.g.*, St. Louis encephalitis or West Nile viruses), IRMCD annually contracts with a company specializing in aerial spraying. For 2009-10, Clarke Mosquito Control/Dynamic Aviation was awarded IRMCD's contract. The District's material of choice for aerial adulticiding is naled (Dibrom). A typical aerial adulticiding mission will encompass approx. 75,000 acres. Over the past 18 years, IRMCD has conducted 12 missions of this scope.

**MOSQUITO-TRANSMITTED VIRUS SURVEILLANCE.** IRMCD participates in Florida's program of surveillance for the detection of several mosquito transmitted viruses (St. Louis encephalitis, West Nile and Eastern Equine Encephalitis viruses). The District has participated in this program since its inception in 1978. IRMCD has 8 sentinel chicken flocks (6 birds per flock) located throughout the District. Weekly sera samples are analyzed by the Florida Department of Health's Tampa Virology Laboratory for the presence of antibodies to these viruses. Results of this testing are shared with the Indian River County Health Department and the District works closely with the Department regarding mosquito activity and potential health threats. The District's surveillance program also closely monitors the population status of the area's primary disease vector *Culex nigripalpus*.



IRMCD has 8 sentinel chicken cages positioned around the District

**EDUCATION/CERTIFICATION.** All IRMCD employees are required to be licensed by FDACS in "Public Health Pest Control". IRMCD recently began providing a state-approved larviciding course that awards CEUs. Both IRMCD and other program employees have taken part in this program. In-house training is also provided on all aspects of the District's program. Eight employees have also received FDACS' Advanced Inspector/Sprayer Certification. IRMCD staff members regularly provide educational programs for the public including service organizations, schools, environmental organizations, church groups, etc.

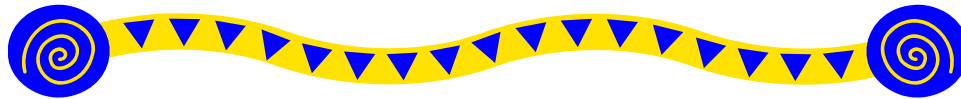
**WORKER SAFETY CONSIDERATIONS.** IRMCD has a formal safety program which qualifies for a Workers Compensation discount. IRMCD has a designated Safety Officer and a program which includes quarterly safety meetings in which all employees are required to participate.

**"IRMCD RESORT".** For the first time in its history, the District is accepting ownership of salt marsh property that is being offered by a private company. Property ownership for another salt marsh parcel was offered in the past but was turned down; however, the District has a significant management interest and dollar investment in the recently offered Hole-in-the-Wall Island. The entire island is a 130-acre impoundment with a conservation easement that requires wetland protection while allowing mosquito control activities. It is located in the Indian River Lagoon, in the Winter Beach area just east of 69<sup>th</sup> Street.

IRMCD would like to invite *Buzzwords* readers to our new resort island dedication ceremonies. At our dedication “picnic” we will feature three new culinary creations: “Tangy *taeniorhynchus*”, “Sweet & Sour *sollicitans*”, and “Nachos de *nigripalpus*”.

**Doug Carlson, Director**  
**Judy Avril, Office Manager**

**All photos by: Pat Morgan**



## **Cutting Florida’s State Support for Mosquito Control**



On March 17-18, 2009 more than 60 members of the Florida Mosquito Control Association traveled to Tallahassee as part of FMCA’s annual Tallahassee Days. In previous *BuzzWords* columns I reviewed the importance of this effort, particularly in the current climate where so much of Florida’s state services are imperiled by impending budget cuts due to Florida’s declining state revenues (See Tabachnick, W.J. 2008. *Buzzwords* 8(6): 8-11; Tabachnick, W.J. 2009. *Buzzwords* 9(1): 10-11). The

attendance at the FMCA 2009 Tallahassee days was impressive with three-fold more attendees than in previous years, representing about 50% of the organized mosquito control programs in Florida. This certainly demonstrated the overwhelming support throughout Florida for the importance of Florida’s statewide mosquito control program and the importance of the state-supported mosquito research program. Florida mosquito control has spoken loudly and consistently that any proposed draconian cuts in the state mosquito control program would imperil Florida’s ability to mitigate mosquitoes and mosquito-borne diseases and that this may have dire and catastrophic consequences for Florida’s future well-being. FMCA members have been adamant that the DACS proposal to cut 50% of the state programs funds would clearly be a dangerous and unwarranted reduction.



The 2009 Tallahassee Days was organized by the FMCA Legislative Committee chaired by Dennis Moore and Doug Carlson with the assistance of Chris Lyon and his colleagues in the FMCA lobbying firm of Lewis, Longman & Walker. Teams of FMCA members had scheduled meetings with about 35 Florida legislators and/or their staff members where they discussed the impending DACS proposed reductions



and the anticipated dire consequences of such a massive reduction on Florida's ability to provide statewide mosquito control. These were difficult and frank meetings since Florida's legislators are facing many hard choices about how best to meet continuing declining revenues. However, as mosquito control professionals, FMCA had the responsibility to make legislators aware of the consequences of the proposed mosquito control reductions. The FMCA consensus was that mosquito control's concerns were well-received and that there was general support by legislators to review the DACS proposed reductions in the light of the adverse impact on the state.



Several FMCA members also had a scheduled meeting with DACS Commissioner Charles Bronson during the afternoon of March 18, after most of the other legislator meetings had been concluded. Also attending this meeting was Mr. Andrew Rackley, Division Director, DACS Division of Agricultural Environmental Services. I was privileged to be among this group which included Dennis Moore, Doug Carlson, Wayne Gale, John Smith, and Chris Lyon and David Ramba; both of Lewis, Longman & Walker. During this frank meeting we advised the Commissioner of our concerns about the DACS proposal to reduce the state mosquito control program by 50%. In summary, we strongly advised the Commissioner that in our professional capacity as mosquito control experts we had the responsibility to provide him with our collective professional opinion that the consequences of such severe reductions to this small program could be catastrophic for the reasons that are now well-known to FMCA and *Buzzwords* readers. Commissioner Bronson was extremely supportive, gracious, and recognized the importance of mosquito control to the state. However, although he agreed with the



potential impact of the proposed draconian reductions on statewide mosquito control in Florida, he frankly advised us that his department had to make many such choices in view of the declining budget. Mr. Rackley advised that the proposed reduction was the recommendation of the Division of Agricultural Environmental Services. The FMCA group strongly disagreed with the Division's recommendation. Commissioner Bronson was attentive, receptive and wished us well in our ongoing discussions with legislators to successfully fund the Florida mosquito control program for the 2009/2010 fiscal year.

During the meeting with Commissioner Bronson, the FMCA group was advised by Mr. Rackley that the Department of Environmental Protection, which transfers the waste tire funds for mosquito control to DACS, has also proposed to reduce the amount transferred to DACS by over \$1 million (50%). This information was a complete surprise to the FMCA contingent attending the meeting, had never been discussed previously with the FMCA, and the FMCA had received no prior knowledge of it from our colleagues in DACS. Subsequent to the March 18 meeting and nearly a week later, Angela Weeks-Samanie of DACS sent an e-mail to mosquito control Directors explaining the situation. It was unfortunate that this information had not been shared with FMCA prior to our March 18 meeting with Commissioner Bronson. Even as late as March 17, prior to the scheduled legislator meetings, knowledge of DEP's proposal would certainly have changed the tenor and sense of urgency of the FMCA discussions with legislators.



These are indeed difficult times. Florida is facing the complete elimination of the state-wide mosquito control program, something that only a few weeks ago would have been unthinkable, when a reduction of 50% was deemed to be a potential catastrophe. There will be no state funds to



support small programs, no state funds to support state-wide communications, no state funds to use to leverage mosquito control obligations to DACS, and to Florida, and no state support for research to make mosquito control more effective, efficient, and environmentally proper. Florida will have no state funds to provide even the current small measure of state-wide service in support of ca. \$170 million dollars in annual local funds committed to mosquito control. In view of the concerns of FMCA and professional mosquito control, why would two Florida agencies propose collectively to completely eliminate this essential state function? Since mosquito control experts in Florida have made it very clear reductions to the program will have dire consequences to Florida, what can FMCA think is the motive for continuing with the reductions? A colleague in mosquito control advised that it appears that when funds to support a program are collected and passed from one agency to another (as pass-through dollars noted in the insert e-mail), and finally to the end provider (in this case mosquito control), those funds are viewed as having little importance to the actual operation of the agency itself and are deemed at risk for elimination. This colleague continued that no wonder the "transfer" of waste tire funds to mosquito control is targeted for elimination by two agencies as part of their own budget reductions, despite the fact that such funds will continue to be collected, but apparently now used for other undefined purposes. Anyone sharing mosquito control's belief in the importance of the state mosquito

*Selected parts of an e-mail dated Mar 23, 2009 from Angela Weeks-Samanie of DACs to Florida Mosquito Control Directors*

*All: Due to the high volume of calls this office has been receiving regarding budget information provided during Tallahassee Days and to keep you informed of the State Approved Mosquito Control budget, we are providing the following information... As of now we have two budget proposals being considered that affect Aid to Local Governments mosquito funding. These are:*

- 1. Governor's budget - No cuts for Mosquito Control – fully funded at 2,166,000 which means a continuation of current funding.*
- 2. Senate proposal – DEP: \$1,216,000 cut from the \$ 2,160,000 allocated from the Waste Tire Trust Fund (authority: Chapter 403.79, F.S.), DACS: reduce additional \$ 1,083,084 - ...The proposed cut, along with a similar cut in DEP, will totally eliminate the pass-through of funds to local programs....In addition, contract research of \$250,000 per year would not be conducted...*

*The Department would continue to regulate mosquito control activities.....to ensure compliance with applicable laws. (authority: Chapter 388, F.S.)*

*The budget constraints have affected us all, but we will continue to work very hard to assist and support your mosquito control efforts. In doing so, we will keep you informed as information is provided to this office.*

control program could perceive that eliminating the program or reducing it severely, despite many concerns about that decision, is sadly just a means of an agency or a division in the agency just self protecting government bureaucracy. But in this case what is the price to Florida's public health? Whatever the true motive, there is certainly strong disagreement on the part of Florida mosquito control with both agencies about the importance of the state mosquito control program. How sad. How unfortunate.

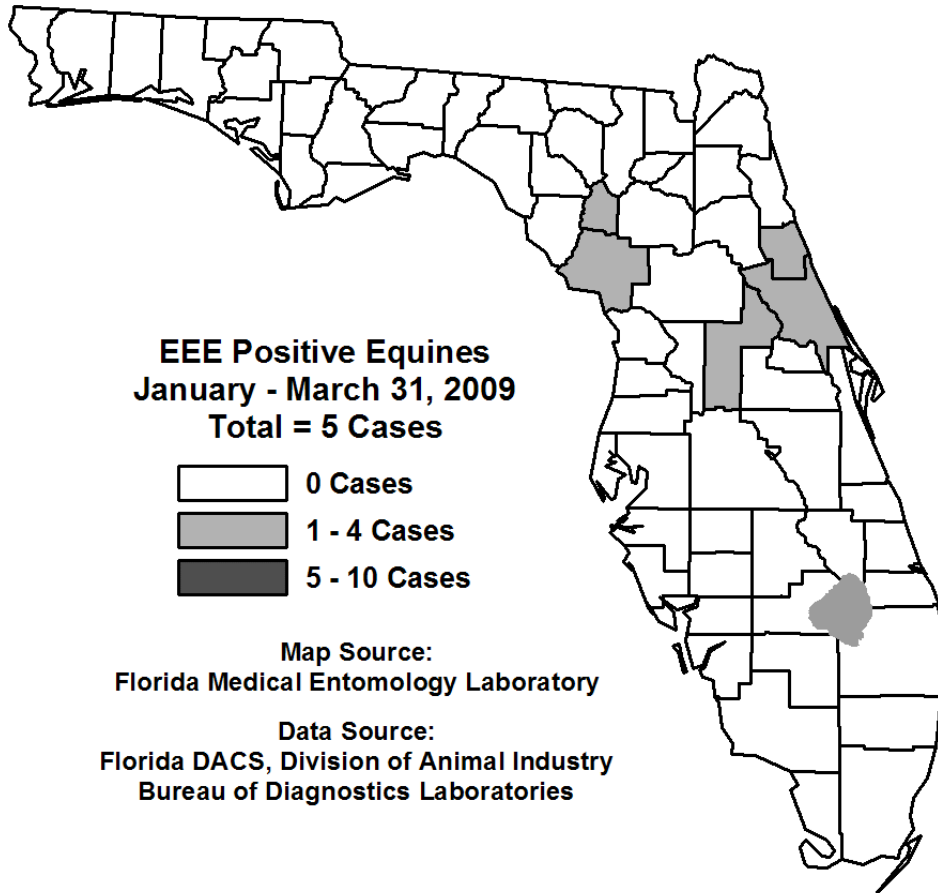
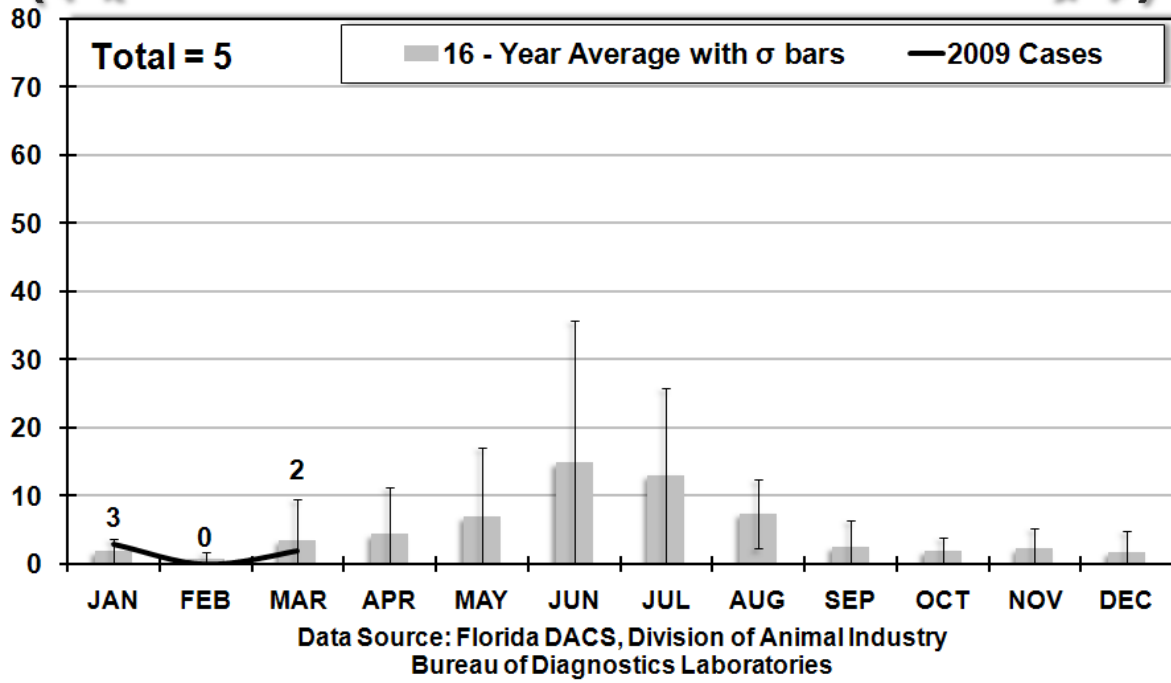
FMCA has successfully fought the battle to keep the \$2.16M in the 2009 proposed Governor's budget. It remains to be seen whether these funds will be supported in the House and Senate versions of the budget as the session comes to a close. FMCA has fulfilled its responsibility to provide the state government with the expert information they need to assess the impact of the proposed reductions on the health and well-being of Florida residents and visitors. We can only hope that Commissioner Bronson and our Legislators make the correct decision. This is certainly a moment of truth for Florida mosquito control's future and for the future of Florida.

Walter J. Tabachnick  
Director and Professor  
Florida Medical Entomology Laboratory  
Department of Entomology and Nematology  
University of Florida – IFAS  
Vero Beach, Florida





## EEE Equine Cases in Florida January through March 31, 2009





**The deadline for submissions to be included in the  
May/June 2009 issue of  
*BuzzWords* is June 1, 2009**

**Please send change of address or newsletter submissions to:  
Roxanne Connelly, Editor, 200 9<sup>th</sup> Street SE, Vero Beach, FL 32962  
or [buzzwords@ifas.ufl.edu](mailto:buzzwords@ifas.ufl.edu)**

***BuzzWords* deadlines for contributing articles and news**

Jan/Feb	February 1
Mar/Apr	April 1
May/June	June 1
Jul/Aug	August 1
Sep/Oct	October 1
Nov/Dec	December 1