

Buzz Words



The Newsletter of the Florida Mosquito Control Association
Jul/Aug 2004

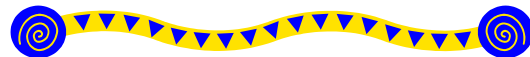
Volume 4, Issue Number 4

SOVE Annual Conference, Doubletree Suites, Boston, Mass.
September 26 – 29, 2004

www.sove.org



FMCA Annual Fall Meeting
Disney's Coronado Springs Resort
Lake Buena Vista, FL, November 14 – 17, 2004



October 11 – 14, 2004
Joint Meeting of the 5th Workshop on Salt Marsh Management and Research
and the 3rd Biennial Mosquito Lagoon Conference
Holiday Inn Cocoa Beach Oceanfront Resort
More details inside this issue of *Buzz Words*



FMCA Aerial Short Course Fly-In
January 11-13, 2005
Lee County Mosquito Control District, Fort Myers, FL



FMEL Advanced Mosquito Identification and Certification Course
February 28 – March 11, 2005
Details and registration form will be posted in September at <http://mosquito.ifas.ufl.edu>



Deadline for submissions to be included in the September/October 2004 issue of Buzz Words is September 25, 2004. Please send articles and change of address information to Dr. Roxanne Rutledge, Editor, FMEL
200 9th Street S.E., Vero Beach, FL 32962 or buzzwords@ifas.ufl.edu

FMCA NEWS

FMCA Subcommittee on Managed Marshes

A joint conference of the Subcommittee on Managed Marshes' "5th Workshop on Salt Marsh Management & Research" and the "3rd Biennial Mosquito Lagoon Conference", will occur the week of Oct. 11 – 14, 2004 at the Holiday Inn Cocoa Beach Oceanfront Resort, 1300 North Atlantic Avenue, Cocoa Beach, FL 32931; phone 321-783-2271. Contact Doug Carlson (Indian River MCD, PH: 772-562-2393; FAX: 772-562-9619) to be placed on the mailing list for further information which will be available soon.

FMCA 2005 Fly-In

The 2005 FMCA Aerial Short Course Fly-In will be January 11-13, 2005 in Fort Myers, FL. Please call Mark Latham for further details: 941-722-3720.

FMCA Foundation

The deadline for the FMCA Foundation Scholarship has been extended until October 8, 2004. See application guidelines elsewhere in this issue of *Buzz Words*.

FMCA Legislative Report

FMCA's lobbyist David Ramba reported that in the budget passed by the Florida Legislature for FY 2004-05, the Mosquito Control Program received an appropriation of \$2.16 million from the FDACS General Inspection Trust Fund. As in years past, \$250,000 of this amount is set aside for research. Also, approx. \$1.65 million was allocated for emergency expenditures. In addition, the \$1.2 million in FY 2003-04 carry-over funds were allocated for the replacement of the Dog Fly plane.

In late May, Governor Bush vetoed the \$1.65 million in emergency funds and the purchase of a Dog Fly plane replacement with carry-over money. This leaves \$2.16 million for the Mosquito Control Program. However from the carry-over funds, \$380,000 was allocated to both FMEL and PHEREC.

Because of the nearly \$349 million that Governor Bush cut from the budget, there should be adequate reserves to cover any emergency situation that might arise.

Gene Baker, Co-Chair
Doug Carlson, Co-Chair
FMCA Legislative Committee

From the Editors of *Wing Beats*

Wing Beats is looking for interesting field-related or technical articles about mosquitoes, mosquito control, and related topics. The articles are usually 1 – 4 pages in length (including graphics and figures). A considerable amount of applied research, equipment modifications, and application technique changes are being conducted at mosquito control programs, universities, and military installations throughout the world that would be of interest to the Wing Beats audience. We encourage you to consider publishing in Wing Beats. Please send articles to: Marin Brouillard, Editor-in-Chief, Collier Mosquito Control District, 600 North Road, Naples, FL 34104 or Marin@collier-mosquito.org

NEWS FROM PHEREC

On June 24, 2004 Dr. Fred Gainous, President of Florida A&M University, informed Drs. Jim Cilek and Harry Zhong of promotion effective August 8th. Dr. Cilek has been promoted to full professor; Dr. Zhong to Associate Professor. In addition, Dr. Zhong's nomination for tenure was approved by the Florida A&M University Board of Trustees at its meeting on May 25, 2004. Congratulations to both Dr. Cilek and Dr. Zhong on these significant accomplishments. We wish them both continued success in future endeavors.

Recent Publication

Petersen, J.L., T.G. Floore and W.G. Brogdon. 2004. Diagnostic dose of synergized d-phenothrin for insecticide susceptibility testing by bottle bioassay. *J. Amer. Mosq. Control Assoc.* 20(2):183-188.

AMCA Change of Address

The principal office of the American Mosquito Control Association had moved. The new address is:

AMCA
681 US Highway 1 South
North Brunswick, NJ 08902
Phone: 732-214-8899
Fax: 732-214-0110

Mosquito Control Manager: Polk County, Florida

POSITION DUTIES: Responsible for the administrative and supervisory work directing the personnel and operations of the mosquito control program within the Natural Resources Division. Technical and professional entomological work overseeing a mosquito control surveillance system program, including larva, adult mosquitoes, and encephalitis viruses. Directs mosquito control staff in performing biological and sources reduction mosquito work on mosquitoes, midges, and other arthropods. Oversees the preparation of state applications for financial assistance of mosquito control projects. Assists with the preparation of operational and grant program budgets. Develops, implements, and maintains a computer database management system for program activities. Serves as Polk County's state certified Mosquito Control Director.

MINIMUM QUALIFICATIONS: Graduate of an accredited four (4) year college or university with course work in entomology, limnology, biology, chemistry, or related courses and have a minimum of five (5) years field biology or related environmental experience which includes two (2) years of supervisory/administrative management experience. Must possess a current Florida Department of Agriculture and Consumer Services (FDACS) Restricted Pesticide License in Public Health Pest Control category. Must have a valid Florida driver's license.

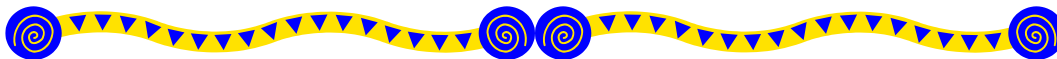
SPECIAL REQUIREMENTS: Must possess or be able to obtain a current Florida Department of Agriculture and Consumer Services (FDACS) Mosquito Control Director III certification within six months of employment in accordance with Chapter 5E-13.032(5) Florida Administrative Code.

SALARY: \$ 43,076.80 annually

TO APPLY: Contact Greg Robinson, Polk County Board of County Commissioners

P. O. Box 9005, Drawer CA03, Bartow, Florida 33831-9005

Tel.: (863) 534-6583; Fax #: (863) 534-6534; e-mail: gregoryrobinson@polk-county.net



Mosquito Control Director: Anastasia Mosquito Control District

The Board of Commissioners of the Anastasia Mosquito Control District of St. Johns County is seeking applications for the position of Director. The applicant must have a minimum of a Bachelor's Degree in Entomology, Basic Sciences, Engineering, or a closely related field with a minimum of (7) years field operations experience, (3) years in a management position and (2) years mosquito control experience. This position requires the applicant to have, or be able to obtain, a Public Health Pest Control Certification, Director's Certification, and a current valid Florida drivers license. Salary range \$59,000 - \$79,000, commensurate with applicant's experience and education. Mail, e-mail or fax cover letter and resume to Anastasia Mosquito Control District of St. Johns County. E-mail amcdsjc@bellsouth.net.

Florida Mosquito Control Association, Inc.
FIRST CALL FOR PAPERS
FOR 2004 ANNUAL FALL MEETING

Disney's Coronado Springs Resort
1000 West Buena Vista Drive
Lake Buena Vista, FL 32830
407-939-1020
November 14 – 17, 2004

You are invited to submit a title for a paper to be presented at the 2004 Annual Fall Meeting of the Florida Mosquito Control Association, Inc. to be held at Disney's Coronado Springs Resort, November 14 – 17, 2004. 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. Please submit as soon as possible so there is time to adequately organize the program. Send this form to:

Doug Carlson
Indian River Mosquito Control District
P.O. Box 670
Vero Beach, FL 32961-0670
Telephone: 772-562-2393; FAX: 772-562-9619; email dcarlson1@hotmail.com

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)

Recognize the individuals who have made outstanding contributions to Mosquito Control: Nominate them for the 2004 FMCA Awards!

Any Florida Mosquito Control Association member in good standing may nominate a candidate for any award by submitting supporting information to the Awards Committee, to include a short biographical sketch of the nominee, emphasizing those accomplishments deemed worthy of the award. There is no official nomination form. Endorsements and written support from other colleagues are encouraged.

***All submissions will be acknowledged.
Nominations must be received by August 6, 2004.***

✪ **The Maurice W Provost Memorial Award**, established as a memorial to the first director of the Florida Medical Entomology Laboratory, honors persons who have made outstanding contributions to mosquito control and/or biting fly biology in Florida. Recipients have been instrumental in developing sound management and operational methods to reduce pesticide levels and to minimize habitat alteration while reducing mosquito populations; in increasing our knowledge of mosquitoes and other biting insects and their habitats; and in educating students and the general public about the importance of various environmental issues facing the citizens in protecting the fauna and flora in Florida.

✪ **The Joseph Y Porter Distinguished Achievement Award** recognizes the first president of the Florida Anti-Mosquito Association and first State health officer of Florida, and recognizes scientists who have made significant contributions to entomology, with special emphasis on the abatement of arthropods of public health importance. The recipient must have meritoriously contributed to the advancement of entomology research in the field of mosquito and other biting arthropod control in the State of Florida.

✪ **The Fred Stutz Memorial Award** honors the former director of Dade County Mosquito Control, and was intended to recognize an outstanding contribution to mosquito control by development of procedures that increase effectiveness in mosquito and other arthropod control, or the design and manufacture of equipment that helped revolutionize the control of mosquitoes and other arthropods of public health importance. Supporting information should also include an evaluation and appraisal of the nominee's accomplishments.

✪ **The Sherrie Yarberry Award** was named for a dedicated employee of Jacksonville Mosquito Control, and was intended to recognize continued outstanding contributions to operational program activities by veteran, non-administrative personnel of Florida mosquito control related agencies. The recipient must demonstrate exemplary performance resulting in enhanced unit efficiency or public recognition of excellence of the parent organization. Supporting information from senior mosquito control administrators and supervisors should include an evaluation and appraisal of the nominee's accomplishments.

✪ **The FMCA Merit Award** is intended to recognize the outstanding individual contribution to promoting control of disease-transmitting and pestiferous mosquitoes or other arthropods of public health importance, for scientific advancement of the discipline, or for developing or extending the public interest in the control of such mosquitoes or other arthropods. The recipient should represent those characteristics generally associated with responsible leadership, good citizenship and personal integrity. The recipient need not be a member of the Association.

Please submit all inquiries and nomination documents to:
Stephen L Sickerman, DACS Bureau of Entomology & Pest Control
3920 Frankford Avenue, Panama City, FL 32405-1953

phone 850-872-4250 ❖ fax 850-872-4271 ❖ e-mail sickers@doacs.state.fl.us

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 \$2000.00, 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, have completed 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. The student shall have maintained an overall grade point average of 3.0 (out of 4.0) during the last 2 years of academic study.
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 be required to 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 required to have a grade point average of 3.0, or better, in the major field of study.
8. The student shall be encouraged to seek summer employment with a local mosquito control district for at least one summer during the award period.
9. 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.

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 are 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. One photograph (black and white, passport size) per application package.

PROCEDURE FOR SUBMITTING APPLICATION:

Four copies of application materials should be mailed to the Executive Director, Shelly Redovan, Florida Mosquito Control Association, P.O. Box 60837, Fort Myers, FL 33906 and postmarked on or before October 8, 2004.

WEST NILE EPIDEMIC? These are the questions we will ask

Florida mosquito control and public health professionals have made many advances in their capabilities to deal with West Nile virus since its arrival in Florida in 2001. We have improved our understanding of West Nile issues through numerous meetings and workshops, like the FMEL-sponsored West Nile workshop that resulted in the 2003 FMCA Technical Bulletin, Volume 4, *Florida Mosquito Control Response to the Challenge of West Nile Virus*. Florida State agencies, DOH and DACS, continue to revise and improve their response plans using new information. There is still a lot to do.

The FMEL generates a web-based Encephalitis Information System (<http://eis.ifas.ufl.edu>) to periodically communicate the current arboviral risk assessment in Florida. The target audience of the FMEL EIS includes Florida mosquito control and public health professionals as well as Florida citizens. The EIS assessments are based on arboviral, meteorological, climatological, and biological surveillance available at each reporting period for the entire state. The goal of the FMEL EIS is to assist the community in determining the extent of the risk to human health and well-being from pathogens like West Nile, St. Louis encephalitis, and eastern equine encephalitis viruses.

One of the lessons that West Nile has provided is the need to continually assess information in order to effectively gauge the risk of human cases. This is one of our greatest challenges. The Florida Coordinating Council on Mosquito Control is working with DOH and with DACS to provide guidance about how different triggers and observations can be used to assess danger. This assessment will carry with it recommendations for the appropriate mosquito control actions to reduce and mitigate the predicted danger.

In mid-July, 2004 a cluster of human West Nile case was reported in Miami-Dade County. As per the DOH Arbovirus Disease Response Plan, the state and county DOH placed Miami-Dade on medical alert. The difficult questions for mosquito control and public health is "What does a geographically isolated grouping of human cases represent? Is this the beginning of a West Nile epidemic in Miami-Dade with 100s of human cases expected? What are the appropriate mosquito control and public health responses that need to be taken?" Perhaps we will have some answers by the time this column is delivered to *Buzz Words* readers. We can only hope that the

answers and resulting actions come from surveillance information rather than from a large number of human cases.

Certainly the answer to the last question should be based on the answers to the first two. It is prudent, however, for DOH to have issued a media release to alert the public that there is a need to take personal protection measures seriously. What about mosquito control? Is this the beginning of an epidemic?

The FMEL communicates with many mosquito control districts in Florida. We receive calls and e-mails where we discuss information and provide assistance in interpreting surveillance information. We are glad to do this and we encourage all Florida mosquito control agencies to contact us for this service.

How can we answer the critical question, "Is this the beginning of an epidemic?" This column is meant to provide Florida mosquito control with a template of questions that we will ask as we try to make a risk assessment for a county where high levels of arboviral transmission are suspected to be ongoing. Some counties might have answers for all of the questions. Other counties might have very little information. Of course, the more information available, the more accurate will be the assessment.

Questions regarding suspected foci of arboviral transmission:

1. What indicators does the county have for West Nile transmission?
 - a. Wild avian serology and virus isolation?
 - b. Dead Birds?
 - c. Horses?
 - d. Humans?
2. What is the temporal and geographical distribution of the indicators?
 - a. Where were the positives infected?
 - b. When were the positives infected?
3. Does the county have a sentinel chicken surveillance program?
 - a. How many flocks? How many birds per flock? Are the flocks run year round?
 - b. How often is each bird bled?
 - c. What are the weekly seroconversion rates?
 - d. What mosquito species and what relative number of each species are found at each flock? How do these numbers change over time, daily, weekly, monthly, seasonally?
4. Does the county monitor mosquito populations?
 - a. What species of mosquitoes are present? What vector species are present and where? What are the spatio-temporal

- b. distributions of the major vectors, *Culex nigripalpus* and *Culex quinquefasciatus*? What about the spatio-temporal distributions of minor vectors such as *Culex restuans* and *Cx. salinarius*.
 - c. Are the above species focal in their distribution? Do any overlap with large avian populations? Are they present where there are humans?
5. What have been the seasonal water levels?
- a. What has been the drought levels preceding the suspected transmission event?
 - b. What was the rainfall pattern following any extended periods of drought?
 - c. How have mosquito populations responded to the drought/wetting cycles?

These are some of the questions we will ask. Counties with no surveillance will unfortunately only be able to provide information on the human cases. In these counties, humans will act as sentinels. This is the best that can be done for counties that lack arboviral surveillance programs. It is impossible to mount a proactive response against arboviral amplification and transmission when humans are used as sentinels. In these cases, it is not optimal to provide a response that is appropriate to the risk.

The first human cases of West Nile virus in Miami-Dade provide a wakeup call indicating the

need to further improve our capabilities. Miami-Dade mosquito control is to be congratulated on getting control operations moving quickly. Unfortunately, the first date of onset was weeks before actual notification. Then there were also the dead bird reports. Although the presence of dead birds pose problems in interpreting transmission risk clearly, the reports of over 100 birds (3-4 times reports in previous months) could have triggered notice to the public in the form of an advisory, with communications to mosquito control in June. All well before the first reported human case. Certainly the dead birds could also have triggered more surveillance information from sentinels and mosquito pools in the region. Such information is essential for risk assessment. However, when the primary trigger is unfortunately human sentinels, it is absolutely essential for the human case reports to be communicated more quickly.

These are the questions. The FMEL can provide assistance in using whatever information is available to answer "Is this the beginning of an epidemic"?

Walter J. Tabachnick, Director
Jonathan F. Day, Professor
Florida Medical Entomology Laboratory
University of Florida, IFAS