The Newsletter of the Florida Mosquito Control Association Volume 4, Issue Number 6
Nov/Dec 2004

FMCA Aerial Short Course Fly-In

January 11-13, 2005, Lee County Mosquito Control District, Fort Myers, FL

5th Workshop on Salt Marsh Management and Research and the 4th Biennial Mosquito Lagoon Conference, February 15 - 17, 2005

More details inside this issue of *Buzz Words*

9th Annual Meeting of the Southeast Regional Public Health Pest & Vector Management Conference, Panama City Beach, FL

February 22 – 24, 2005; http://pherec.org

FMEL Advanced Mosquito Identification and Certification Course

February 28 – March 11, 2005

Details and online registration are posted at http://mosquito.ifas.ufl.edu

2nd Arbovirus Surveillance and Mosquito Control Workshop

March 22 – 24, 2005

Anastasia Mosquito Control District, St. Augustine, Florida,

FMCA NEWS

FMCA Subcommittee on Managed Marshes

Due to the effects of Hurricane Frances, the joint conference of the Subcommittee on Managed Marshes' "5th Workshop on Salt Marsh Management & Research" and the "4th Biennial Mosquito Lagoon Conference that was originally scheduled for October 11-14, 2004 has been rescheduled for February 15-17, 2005 at the same location, 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.

2nd Arbovirus Surveillance and Mosquito Control Workshop

The 2nd Arbovirus Surveillance and Mosquito Control Workshop will be held at Anastasia Mosquito Control District, St. Augustine, Florida, March 22-24, 2005. There are 3 day sessions including arbovirus surveillance (day 1), mosquito population surveillance (day 2), and mosquito control techniques (day 3). Cost is $40 for a 1 day session. Contact information: Ms. Alex Santoro or Dr. Rui-De Xue at 904-471-3107 ext. 206, 904-471-3189 (fax), or by e-mail: santoroamcd@bellsouth.net or xueamcd@bellsouth.net

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 being conducted at mosquito control programs, universities, and military installations throughout the world 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

Recent Publications

Soumare, M.K.F., J.E. Cilek and E.T. Schreiber. 2004. Prey and size preference of *Mesocyclops longisetus* (Copepoda) for *Aedes albopictus* and *Culex quinquefasciatus* larvae. J. Amer. Mosq. Control Assoc. 20(3):305-310.

Cilek, J.E., J.L. Petersen and C.F. Hallmon. 2004. Comparative efficacy of IR3535 and DEET as repellents against adult *Aedes aegypti* and *Culex quinquefasciatus*. J. Amer. Mosq. Assoc. 20(3):299-304.

Hurricane Ivan

Three research divisions at PHEREC (Disease Ecology & Control, Mosquito Larvicide, and Biting Fly & Tick) assisted in the State's Hurricane Ivan relief effort by providing mosquito surveillance for seven of the ten panhandle counties located west of the Apalachicola River. The surveillance data were used to support FDACS aerial spray operations.

The aftermath of Hurricane Ivan is documented in the recent issue of "PHEREC News" Vol. 5 No. 3 available online at http://pherec.org/pherecnews/Vol5No3/

Southeast Regional Conference

The 9th Annual Meeting of the Southeast Regional Public Health Pest and Vector Management Conference will take place Tuesday through Thursday, February 22-24, 2005 in Panama City Beach, FL. For more information, call Jack Petersen at 850-872-4184 extension 36 or go to http://pherec.org/SEconference

Recent scientific presentations at the Annual Meeting of the Entomological Society of America and the Fall Meeting of the Florida Mosquito Control Association have been posted to the PHEREC Web site. Point your browser to http://pherec.org/DECS/Repellents/ for a poster entitled: Modification of the K & D Module Technique for Efficacy & Duration Evaluation of Commercial Repellents by John P. Smith, Jimmy Walsh and Eric Cope. Go to: http://www.pherec.org/currentresearch.html for the PowerPoint presentation entitled: Dose Response Curves for Permethrin by Jack Petersen. This presentation includes baseline data for susceptible populations of *Culex quinquefasciatus* and will be useful to mosquito control programs performing resistance testing to pyrethroids.

FMEL NEWS

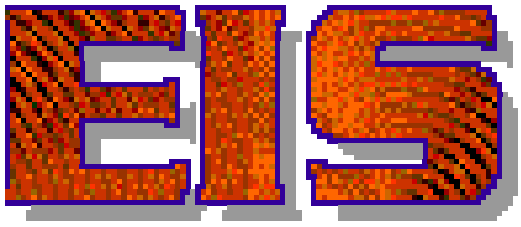
2005 Advanced Mosquito identification Course

The dates for the 2005 Advanced Mosquito Identification Course are February 28 through March 11, 2005 at the FMEL Boathouse. Registration information can be found at http://mosquito.ifas.ufl.edu.

Mosquito Copepod Kit Available Free for Florida Teachers

The FMEL has developed mosquito and copepod kits for teachers in Florida. The kits contain everything needed to rear and observe mosquitoes and copepods in a classroom setting and can also be used for science fair projects or for class and student special projects. Information about the kits can be found at: http://fmel.ifas.ufl.edu.

If you have contacts at your local schools, let them know about the availability of the kits.



Encephalitis Information System

Don't forget to visit the Encephalitis Information System websites for updates on the current Arbovirus situation on Florida. Site maintained by FMEL at http://eis.ifas.ufl.edu.

Deadline for submissions to be included in the January/February 2005 issue of *Buzz Words* is January 30, 2005. 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

JOB VACANCY

Assistant Research Scientist

Arbovirus Laboratory - Wadsworth Center
New York State Dept of Health, Albany, New York. Start: January 2005

This research scientist position at the Wadsworth Center, New York State Dept of Health, is part of a large collaborative research project supported by NIH to investigate how vertebrate and invertebrate host-virus relationships affect encephalitis virus transmission. The position requires an individual with entomologic experience, and it is advantageous to have experience working with infectious agents. The individual must have an interest in working with live mosquitoes. Emphasis is on studies of West Nile virus in selected mosquito species.
The Wadsworth Center is a unique biomedical and environmental institution with more than 200 scientists and 800 support staff. Additional information about the Wadsworth Center can be found at http://www.wadsworth.org.

Please contact Dr. Laura D. Kramer, Director, Arbovirus Laboratory, at ldk02@health.state.ny.us, for further information or to submit a curriculum vitae including names and phone numbers or e-mails of references.

Congratulations to FMCA Award Winners Honored during the 2004 FMCA Fall Meeting

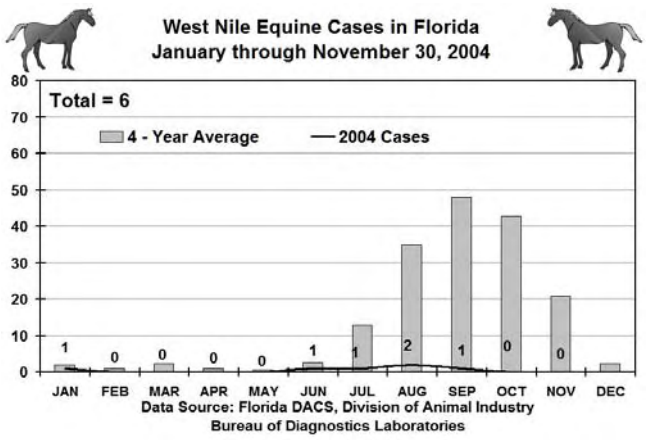
FMCA Merit Award:
Mike Greer
Florida A&M University
PHEREC Lab

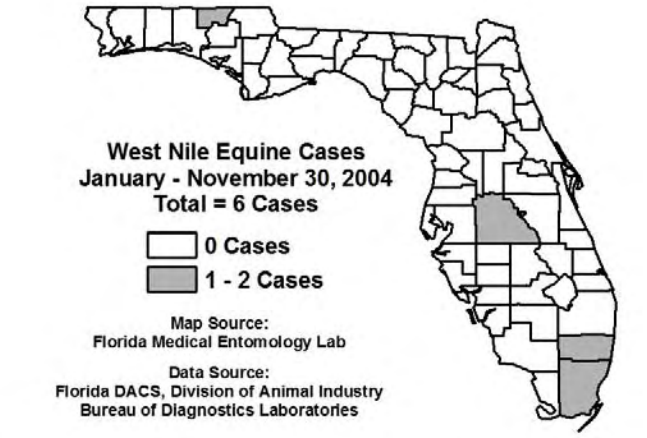
FMCA Merit Award:
Dan Kline
USDA - CMAVE

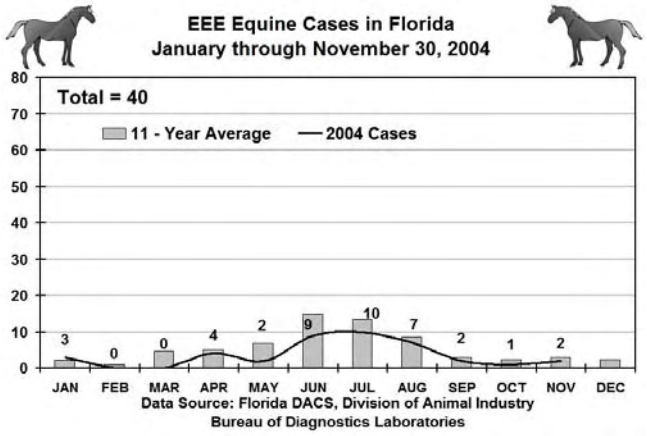
FMCA Merit Award:
Carlton Layne
EPA

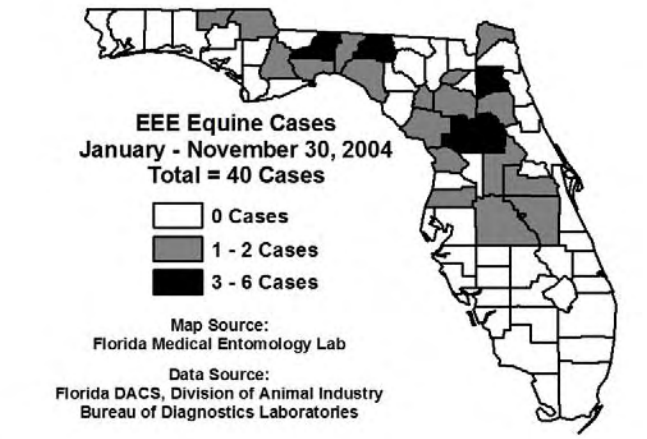
Presidential Citation:
Gene Baker
Leon County Mosquito Control District

Presidential Citation:
Bill Opp
Lee County Mosquito Control District









Distance Education at the University of Florida

Flexibility is becoming a key issue in today's fast paced world. For those of you who are tied down with a current job or family, distance learning is becoming the best way to further your education. Not only is distance learning flexible, but it is also convenient. Whether you are a night or morning person, distance learning allows you the opportunity to study at your own pace while suiting your time needs.

Distance learning has made great leaps and bounds thanks to increasing technological applications. The courses are offered in a variety of formats, including: Web CT, DVD, interactive videoconferencing and video tapes. Not only is there variety in how courses are offered, but also in the amazing resources available to the student; from home access to electronic library resources, reference tools and many databases, to home delivery of copies of articles from journals not available at UF. There is also information and reference assistance available via email, online chat or telephone.

The University of Florida offers two Master's programs via distance learning, a Master of Science in Entomology, or in Pest Management. Both these programs are non-thesis; however, should you desire to do a thesis, arrangements can be made with the professor.

For both programs, in order to complete the required 30 credits, it would take between 2 and 4 years. The only face-to-face location requirements are a written and oral exam at the University of Florida main campus in Gainesville.

The Prerequisites for each program are as follows:

- Bachelor's degree in a scientific discipline
- Admission criteria include a B average or better for the last 2 years of the baccalaureate program
- And satisfactory scores (a total of 1000 in verbal and quantitative portions) of the General Test of the Graduate Record Examination (GRE)

For both of these programs the admissions process involves filling out an application. For Spring 2005 semester, registration for these courses is open from October 25-January 7 and the courses themselves take place from January 4 through April 20, 2005. You can enroll in courses without being

admitted to the graduate program, but no more than 9 credits are transferable into the program. So if you plan to complete the degree, start the graduate admission process soon.

I. Master of Science (non-thesis) in Entomology

The Entomology and Nematology Department of the University of Florida offer this off-campus Master of Science degree (non-thesis) with a concentration in Entomology. The courses are offered via distance education to accommodate those students interested in biological sciences with an emphasis on insects and other arthropods.

II. Master of Science (non-thesis) in Pest Management

The Entomology and Nematology Department of the University of Florida offer this off-campus Master of Science degree (non-thesis) with a concentration in Pest Management. The courses are offered via distance education to accommodate those students interested in the principles and practices of interdisciplinary pest management.

Both these programs involve taking similar courses, though the pest management option is more broad-based. For the Spring semester of your first year the class Graduate Survey of Entomology (ENY 3005/5006) provides a general overview of insects, from how they move to what they eat to how insects impact our lives.

Another course, Insect Classification (ENY 6166), teaches you how to identify insects, including the techniques for determining, justifying and applying scientific names to insect taxa using a variety of methods. By the end of the course you will have a working knowledge of family-level identification and understand the processes behind species descriptions and definitions.

For more advanced students, other courses available for Spring 2005 are Medical and Veterinary Entomology, and Insect Molecular Genetics.

To find out more information about how you can register and be a part of distance learning, please visit University of Florida's website at http://www.distancelearning.ufl.edu
or contact the Graduate Coordinator, Don Hall, at 352-392-1901 X 117.

Florida's 2004 West Nile Transmission Season

We will most remember 2004 as the year of the Hurricanes. On the brighter side, thankfully Florida once again escaped a major West Nile epidemic. Here are Florida's West Nile numbers for the year as of Nov. 20, 2004. Human cases: 41 (two deaths), Sentinel chickens: 310, Horses: 6, Wild Birds: 35. Seven of Florida's counties had human cases and West Nile virus activity was detected in 34 of Florida's 67 counties. Despite the large amounts of rainfall, and the resulting explosion of mosquito populations in large portions of the state, West Nile transmission remained close to what has been observed each year since its introduction in 2001.

The reasons for the absence of a Florida West Nile epidemic in 2004 include, 1) the failure of substantial West Nile amplification during the avian breeding season (April-June) and 2) the late timing of major rainfall events associated with the hurricanes which occurred during the early transmission period (July-September) of the Florida arboviral cycle. This validates that without viral amplification, which typically occurs during the spring and summer, there is little chance of epidemic transmission during the late summer and fall (August-November). The FMEL Encephalitis Information System at http://eis.ifas.ufl.edu/ continually collated epidemiologically relevant factors during the year and assessed them in terms of the risk for West Nile transmission. Readers are encouraged to visit this site for explanations. It is reassuring to note that the predictions made throughout the year on EIS were accurate and right on target. The factors indicating substantial risk of West Nile virus transmission to humans were never in place during 2004.

We must continue to improve our surveillance capabilities during upcoming years to ensure we will be prepared for the anticipated West Nile epidemic in Florida. So what can we learn from 2004? Although Florida did, yet again, escape a substantial West Nile epidemic, the West Nile virus transmission reported in Miami-Dade County from June-September 2004 was very troubling and could be an omen of a future West

Nile epidemic. Twenty of Florida's human West Nile cases were in Miami-Dade. Perhaps this is not all that troubling considering the county population is ca. 2.3 million. However, when one considers the 9 human cases in Coconut Grove/Coral Gables, population 60,431, the disease incidence for this area is 1 in 6700 people during the course of the summer. This incidence is among the highest observed in the U. S. during 2004. Certainly Coconut Grove and Coral Gables presented a very focal outbreak that did not spread substantially to other parts of the county. Consider that this same incidence throughout Miami-Dade would produce a staggering 350 West Nile cases. The same incidence throughout Florida would produce a catastrophic 2,400 West Nile cases. We will be working with Marlon Nelms and the Miami-Dade Mosquito Control District over the next few months to evaluate what happened. Why did this one small area have such a high incidence? Why did transmission not spread to other regions? What can be done to ensure that the situation will not repeat in the same area during 2005, or more troubling – worsen and spread?

We will continue working with all Florida Mosquito Control programs to develop the appropriate actions to reduce the risk of a catastrophic West Nile epidemic. However, consider Coconut Grove and Coral Gables. What are appropriate steps to take in 2005 if there are indications that transmission is again at the 2004 levels? What should be the response if, for example, ARDS data shows mosquito transmission frequencies of 1/1000 or greater frequency? What should local mosquito control provide? What coordinated steps are needed by mosquito control and public health agencies? What constitutes a medical threat level that requires strong advice to the public that outdoor nighttime activities dramatically increase exposure to mosquitoes and risk of disease? What level (50? 100? 1,000 human cases?) might constitute a medical disaster situation requiring external assistance from the state and perhaps FEMA? What disease incidence levels should be used? What surveillance levels (mosquito transmission levels? sentinels? mosquito pools?) require that appropriate actions be taken in advance of large numbers of human cases?

What may seem like academic questions in December 2004 will become all too real in July-August 2005. We were very close in Miami-Dade during the summer of 2004 to dealing with these issues and questions during a potentially dangerous epidemic situation.

Walter J. Tabachnick, Director
Florida Medical Entomology Laboratory, University of Florida - IFAS