

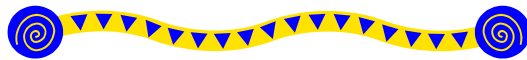
Buzz Words



The Newsletter of the Florida Mosquito Control Association
Sep/Oct 2004

Volume 4, Issue Number 5

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



FMCA Aerial Short Course Fly-In

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



RESCHEDULED

5th Workshop on Salt Marsh Management and Research and the 3rd 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 registration form are posted at <http://mosquito.ifas.ufl.edu>

FMCA NEWS

Condolences to the Family

Perry L. Sparkman, 78, of Orlando died September 4, 2004. Perry was a long time commercial member of FAMA.

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 "3rd 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 2004 Annual Fall Meeting

The 2004 Annual Fall Meeting will be held November 14 - 17, 2004 at the Disney Coronado Springs Resort. Registration information can be found at <http://www.floridamosquito.org>.

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.

Hernando County Mosquito Control Wins National Association of Counties Award

On July 27, 2004, the Chairperson of Hernando County Board of Commissioners announced that the National Association of Counties (NAC) had honored the County with a NAC Achievement Award for their multi-media effort on public education to battle West Nile virus. The County Administrator presented the award to the Division of Mosquito Control, Department of Public Works.

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

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>

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.

FMEL video "Spatiotemporal Arboviral Surveillance in Florida during 2003" wins Science award

A video developed by FMEL recently won an Honorable Mention Award in the Noninteractive Multimedia category of the 2004 Science and Engineering Visualization Challenge. The challenge is held annually by the National Science Foundation and the journal *Science*, published by the American Association for the Advancement of Science (AAAS). The video can be seen at <http://mosquito.ifas.ufl.edu> and challenge information and results can be seen at <http://www.nsf.gov/od/lpa/events/sevc/over.htm>

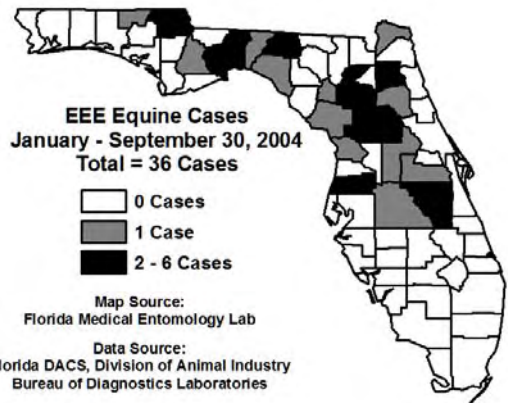
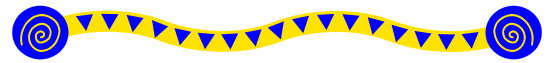


Encephalitis Information System

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>.

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.

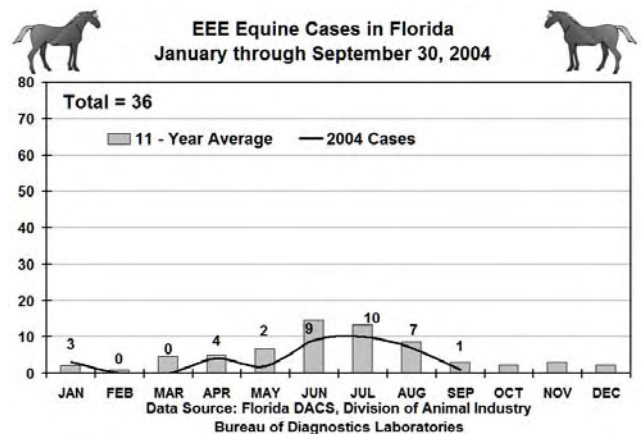


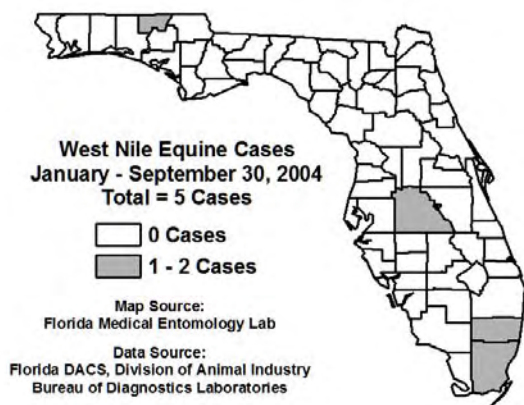
JOB VACANCY

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





document summarizing current hazard classification and labeling policies and the corresponding elements of the GHS. **Both of these documents and directions for submitting comments to the EPA docket are provided in the "Members Only" section of the AMCA website under the tab "News and Updates"**. www.mosquito.org AMCA is formulating its own comments and will post them to the website as soon as they are finalized. When implemented, the GHS is meant to increase international consistency in hazard classification and labeling for pesticide and other chemical products. EPA believes that such consistency will promote greater clarity and understanding of the hazards of pesticide products, thereby reducing potential hazardous exposures and adverse effects from use, without reducing benefits to users or imposing burdens on the pesticide industry.

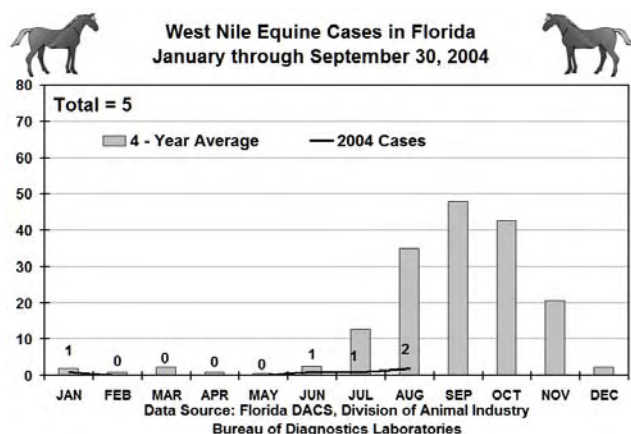
The following information on GHS was taken directly from the website:

<http://www.epa.gov/oppead1/international/globalharmon.htm>

You can view supporting documents and the white paper at this website. Please take this opportunity to read about these proposed changes and provide comments to EPA.

The GHS for the classification and labeling of hazardous chemicals is an initiative to promote common, consistent criteria for classifying chemicals according to their health, physical and environmental hazards, and to develop compatible labeling, safety data sheets for workers, and other information based on the resulting classifications. In July 2003 the United Nations Economic and Social Council (ECOSOC) formally adopted the GHS and authorized its translation into official UN languages and dissemination throughout the world. The intent is that countries which lack systems for hazard classification and labeling will adopt the GHS as the fundamental basis for national policies for the sound management of chemicals, and that countries which already have systems will adapt them to be consistent with the GHS. The U.S. has been participating in GHS activities with a number of other countries and key industry, worker, and public interest stakeholders.

The 1992 United Nations Conference on Environment and Development (UNCED, or Earth Summit), the 2002 World Summit on Sustainable Development (WSSD) and the Intergovernmental Forum on Chemical Safety (IFCS) have all



Globally Harmonized System (GHS) for Classification and Labeling of Chemicals

EPA has issued for comment a White Paper entitled, The Globally Harmonized System of Classification and Labeling of Chemicals: Implementation Planning Issues for the Office of Pesticide Programs. This document describes the background and context of the international Globally Harmonized System (GHS) for chemical hazard classification and labeling to which EPA is committed. Further, the document describes EPA's proposed approach to implementing this system for pesticide products that are registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The Agency is also making available a side-by-side comparison

endorsed the need for the GHS, and IFCS and WSSD have set a goal of 2008 for its implementation.

Goals and Anticipated Benefits of the GHS

The twin goals of the GHS are to enhance public health and environmental protection and reduce barriers to trade. Currently, a number of countries operate their own systems for classification and labeling, and companies must comply with differing requirements depending on where they do business. A harmonized system will lead to greater consistency among countries and thereby promote safer transportation and handling of chemicals. For example, harmonized criteria and widely recognized symbols and warnings used in the transport of hazardous chemicals will help protect workers and other potentially-exposed populations from acutely toxic chemicals and chemicals that pose flammability or explosive hazards. A more uniform, harmonized system of requirements should also reduce costs for companies involved in international trade. Thus, harmonization will promote regulatory efficiency and facilitate trade without lowering the level of health and environmental protection afforded by current laws and regulations. Other potential benefits of the harmonized system include reduction in animal testing now needed for compliance with divergent national systems and the conservation of scientific resources.

Components of the GHS

GHS hazard classification criteria have been adopted by consensus for physical hazards (flammability, explosivity, etc.) and key health and environmental effects, including: acute toxicity, carcinogenicity, germ cell mutagenicity, reproductive/developmental toxicity, respiratory and skin sensitization, skin and eye irritation/corrosion, target organ/systemic toxicity, and aquatic toxicity. Standardized label

elements (symbols, signal words and hazard statements) for each of these hazard classes have been developed and agreed, along with a standard format and approach to presentation of GHS information in safety data sheets. The GHS document also includes guidance on other issues relevant to implementation of the system, including product identifiers, confidential business information, and precedence of hazards.

Implementation Considerations

U.S. participation in the GHS will be voluntary, and may entail adaptation of the system as needed based on U.S. circumstances. The scope of the harmonization effort includes all hazardous chemicals, which is consistent with the U.S. regulatory scheme. Implementation will mean significant changes in how chemicals, including pesticides, are labeled in the workplace, transportation, and consumer use settings. Key U.S. agencies involved in the GHS include the Consumer Product Safety Commission (CPSC), the Environmental Protection Agency, the Department of Labor Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT).

While the GHS will classify chemicals essentially based on their intrinsic hazard properties, without full analysis of exposure and risk, the system may apply differently in different settings or stages in the life cycle of a product. For example, the U.S. CPSC uses a risk-based approach to labeling for chronic effects, while OSHA uses a hazard approach and DOT does not require chronic effects labeling. This is expected to continue consistent with the GHS.

The GHS is a voluntary system, in that it does not impose binding treaty obligations on countries, but to the extent that countries adopt the GHS into national regulatory requirements it will be binding on the regulated community.



Deadline for submissions to be included in the November/December 2004 issue of *Buzz Words* is November 30, 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

The realities of encephalitis

On a sunny April morning back in 1999, I sat down at my office desk, for the very last time. I had been trying to shake a wee headache all morning... finally, I told my supervisor that I'd have to go home. That's the last thing I remember for the next four weeks. I don't recall driving home. I don't recall being miserable to my family in the following days. And, I don't recall my own husband taking me to our local hospital's emergency room, and telling them, 'something isn't right about Wendy.'

It was my amazing good fortune that one of the medical professionals suggested that I may be suffering from encephalitis... inflammation of the brain. I was whisked into treatment, and my life was saved. Unfortunately, while this amazing doctor was saving my life, my family was struggling to learn more about encephalitis. Our local library, the internet, asking friends... no one seemed to really understand. Once I came home, problems multiplied. My parents were babysitting me as my husband went to work and our children went to school. On that first morning home, I started by seeking a spoon to stir my coffee. I was searching through a pile of newspapers, asking the dog, and checking in the freezer. As I was heading outdoors in the rain to search the backyard for a spoon, my mother had to show me where the spoons are kept -- in my own kitchen drawer. This was one piece of knowledge, which had to be re-learned; one, of hundreds.

Encephalitis is swelling (inflammation) of the inner area of the brain. Damage done is permanent. Recovery from encephalitis is often professionally measured in a two-year time span, as neighboring areas of the brain struggle to re-learn skills and abilities which have been lost. This struggle can have a variety of success. There are different types of encephalitis, including St. Louis Encephalitis, La Cross encephalitis, Eastern Equine Encephalitis, Western Equine Encephalitis, Rasmussen Encephalitis, Herpes Simplex Encephalitis – and now West Nile encephalitis, the newest arrival.

In 2003, The Ohio State University Extension Fact Sheet on West Nile virus states: *"There is no specific treatment for WNV encephalitis or fever. All care is supportive, including hospitalization, respiratory support, and intravenous fluids."* *

An August 2004 media release from the New York State Department of Health and Hygiene confirms, *"Nearly two-thirds of severely infected patients, especially elderly, still suffer physical and mental impairments 12 months after falling ill with West Nile."*

Over and over again, the public is told of how few fatalities there are after the touch of West Nile. Unfortunately, the public has little knowledge or interest in encephalitis survivors - people who are struggling to face life itself, after surviving this horrible disease. Consider memory loss, where a fiancée is heartbroken when her intended really does not remember her. or the promise that they shared. And there is a man's anger with himself, when his spouse is now the solo family bread-winner. Young people, who now face their education with frustration, as their peers move ahead and leave them behind. Or even a farmer, who can no longer return to his fields.

In the year 2000, I was capable to return to my computer at home, and began searching for information about encephalitis. I found one registered charity, in the United Kingdom. I contacted them by email to see if they would spread to North America, and they replied, "We will do England, Wendy. You can do the rest of the world." My website, Encephalitis Global was born.

Since that time, my husband and I have been invited to a farming community in Oregon, where I spoke in the local community centre about encephalitis after one of the local farmers was hospitalized. Another time, we took a break from a holiday, to meet with a family in Ft. Lauderdale Florida, where the young father had been recently diagnosed. I am proud to say that the NORD (National Organization for Rare Disorders USA) includes my name as a contact for people who seek more information. Encephalitis Global qualifies for the logo of the Health on the Net Foundation in Switzerland. The third annual international FACES (Friends And Caregivers Encephalitis Survivors) Conference proudly took place earlier this summer.

Previous to April 1999, I'd never heard of encephalitis. Now, I spend time every day to reach out and help

"On that first morning home...my mother had to show me where the spoons are kept...this was one piece of knowledge, which had to be re-learned; one of hundreds."

other people understand. Encephalitis Global offers camaraderie, information and support to people touched by encephalitis. We are a community of survivors, loved ones, and caregivers, folks who have been touched... by encephalitis.

Wendy Station, Vancouver Canada, Encephalitis Global
www.encephalitisglobal.com

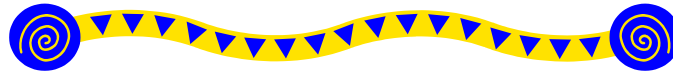
References:

<http://prevmed.vet.ohio-state.edu/docs/wnvfact.pdf>

Ohio State University Extension Fact Sheet "West Nile Virus for Physicians"

<http://www.nyc.gov/html/doh/html/public/press04/nyam-0812.html>

New York State Department of Health and Hygiene media release.



Florida in 2004: Hurricanes, Mosquitoes and West Nile

As of August 2004, West Nile virus transmission was sporadic in Florida just as in previous years. The Miami-Dade region had the most focal transmission to humans, particularly in the Coconut Grove area. Jon Day and I, working with Marlon Nelms and Miami-Dade Mosquito Control used the FMEL Arbovirus Rapid Deployment System (ARDS) to collect *Culex nigripalpus* in this area during early August, in an attempt to measure transmission. Fortunately, we did not detect transmission in the several hundred *Cx. nigripalpus* we collected. We concluded transmission frequencies at that time were too low to cause more than the sporadic cases being observed, and that a large outbreak was unlikely. Miami-Dade was on Medical Alert and Miami-Dade Mosquito Control continued to monitor the situation closely and apply control measures. Florida was again spared the "big event" West Nile epidemic.

There were large mosquito populations in some regions of Florida due to August rains. Many Florida mosquito control districts recorded large mosquito populations with some nightly *Cx. nigripalpus* trap collections in the 1000s. Thankfully, these large numbers occurred in late August. There was little West Nile virus amplification preceding the August collections due to the extremely dry summer conditions and we did not see an increase in West Nile transmission as a result.

And then hurricane time! As if the destruction to homes, livelihoods and well being caused by Florida's hurricanes were not enough in 2004, the mosquitoes quickly followed as expected, and they came with a vengeance. The large amounts of flood water produced huge numbers of flood water mosquitoes in many areas of Florida, followed by other species from the standing water that could not drain properly.

What occurred first with hurricane Charley became the typical pattern in larger areas of Florida impacted by Frances, Ivan and Jeanne. Many people with home damage, damaged screens, walls and roofs, were more exposed to mosquitoes. Electricity was off for many days in some areas. Increased exposure to the mosquitoes added to the misery level. The flood water mosquitoes like *Psorophora* species, *Aedes vexans*, *Ochlerotatus taeniorynchus*, etc., came first. Counts of 20,000 or more in a trap night were not uncommon. This was quickly followed by species like *Cx. nigripalpus* with 20,000 per trap being typical. Mosquito control districts in affected areas acted quickly to suppress populations. An amazing feat since the personnel in the districts were at the same time also contending with the personal problems associated with the storm, damage to their equipment and facilities. These dedicated individuals still worked long hours to conduct effective mosquito control. This situation occurred in many counties throughout the state in 2004. In counties like Desoto, Hendry and Hardee, counties hard hit and with no organized mosquito control, the Florida Department of Agriculture and Consumer Services (DACCS), with assistance from FEMA funds, launched an unprecedented county by county aerial spray campaign to quickly reduce the numbers of mosquitoes assaulting the hurricane victims. DACCS personnel collected surveillance data on mosquito numbers and targeted areas for spraying based on the record numbers of mosquitoes being observed. After each storm, more counties were put on the spray list - a tremendous effort that continued into October in some areas.

Several things come to mind in looking back on 2004 and Florida Mosquito control.

1. No one could have anticipated the magnitude of the mosquito problem associated with four consecutive hurricanes, two having almost identical tracks.
2. Florida mosquito control and DACS did a tremendous job in providing mosquito control at a time when Floridians were being exposed to large numbers of biting mosquitoes.
3. Thankfully the arrival of the storms in Florida was preceded by environmental conditions that were not favorable to West Nile or other arbovirus amplification.
4. Thankfully the arrival of the September storms was too late in the mosquito arboviral transmission cycle to permit efficient amplification of West Nile virus despite the unprecedented number of vector mosquitoes.

Florida appreciated the federal support of FEMA that was managed by DACS for mosquito control in the aftermath of the hurricanes. I hope that similar funding will be forthcoming to reduce the impact of a devastating emergency situation that will result during a future Florida West Nile "big event" epidemic when 100's or 1000's of human West Nile cases will be reported. Our common goal in Florida is to predict this emergency in advance, and then quickly apply effective, efficient and proper mosquito control and public health communications to mitigate the epidemic. With continued support and research we can provide information and appropriate advance warnings similar to hurricane tracking and forecasting, so that mosquito control and public health efforts are focused to do the most good.

Florida mosquito control can be proud of providing effective mosquito control that contributed greatly to reducing pest mosquitoes and making life more bearable for our citizens during this extraordinary hurricane period. Well done. We can do the same to predict and mitigate future arboviral epidemics in Florida.

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