

Buzz Words



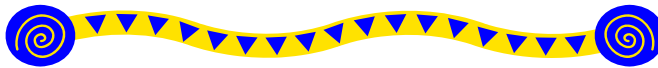
The Newsletter of the Florida Mosquito Control Association
Mar/Apr 2006

Volume 6, Issue Number 2

FMCA Spring Conference
May 17 – 18, 2006

St. Petersburg Beach, FL

Details and Registration Form inside this issue of *BuzzWords*



American Mosquito Control Association
8th Annual Spring Washington Conference
May 1 – 3, 2006

www.mosquito.org



Are you ready for AMCA in 2007???



FMCA News

2006 FMCA Spring Meeting

The dates of the Spring Meeting will be May 17-18, 2006. Please note that this is a Wednesday/Thursday meeting and not the typical Tuesday/Wednesday meeting. In addition, there are 2 room rates for this meeting - the room rate for 5/16/06 will be \$145 and the room rate for 5/17/06 will be \$125.

Pinellas County Mosquito Control will be celebrating their 75th Anniversary - watch the FMCA web site for further updates and district activities.

From the Editors of *Wing Beats*

Marin Brouillard has resigned from *Wing Beats* after serving as Editor for the past three years. The editorial tasks will now be shared among the following four *Wing Beats* staff: Stephen Sickerman, as Editor-in-Chief, will be in charge of final edit, layout and preparation for the printer; Jack Petersen, as Managing Editor, will be responsible for manuscript solicitation and the manuscript review process; Dennis Moore, as Director of Advertising, will be in charge of advertising and billing; and Kellie Etherson, as Circulation Editor, will be responsible for keeping the mailing list up to date. The new editorial staff would like to thank Marin for a job well done, and to remind readers that their suggestions and manuscripts are welcomed. Please contact Dr. Petersen for more information.

Stephen Sickerman: 850-872-4250
e-mail: sickers@doacs.state.fl.us

Jack Petersen: 850-872-4370 ext. 36
e-mail: drjack3@hotmail.com

Dennis Moore: 727-376-4568
e-mail: dmoore@pascomosquito.org

Kellie Etherson: 352-281-3020
e-mail: ethersonk@cityofgainesville.org

FMCA Booth a Big Hit at the AMCA Meeting in Detroit

The Florida Mosquito Control Association has been preparing for the AMCA meeting in Orlando in 2007 for the past three years. Each host city is given free booth space beginning three years out from their meeting, so never an organization to pass up on anything free, FMCA set up an information and promotional booth in Savannah '04, Vancouver '05 and Detroit '06. The Florida delegation, for each of these years, has been outstanding and this year was no exception. There were 94 Florida delegates in Detroit this year - 27 from companies, 9 from government agencies, 9 from universities, 6 companions, and 43 from county MCDs. The following counties/areas were represented: Anastasia, Beach, Collier, Escambia, Florida Keys, Hernando, Indian River, Lee, Manatee, Pasco, and Pinellas.

The FMCA booth was visited by just about everyone at the meeting – all of them anxious to get an orange sticker (and a Mickey), seashells, sand dollars, and chocolate! FMCA introduced the 2007 AMCA logo with long-sleeved T-shirts that were the hit of the booth. Although the shirts sold out at the meeting more have been ordered and will be available soon. Pamphlets to the Peabody hotel and other information about Orlando were provided to everyone who asked.

Two large displays were presented at the booth – one from Dr. Jeff Stivers regarding Field Day in Orlando 2007 and the other from Dr. Jane Barber regarding an aerial survey she is taking. Jeff is the Chair of Field Day for the AMCA Orlando meeting and he will be responsible for organizing this entire event. If you are interested in showing off some of your inventions or things that you do at the district you can contact Jeff directly or check out the FMCA website and look for the Field Day tab (coming soon). There was a lot of interest in Field Day mostly due to Jeff's modification of his Honda bike to act as a surveillance delivery machine!

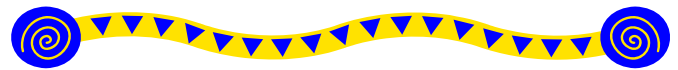
Jane's display was directed to those who have aerial programs. If you are interested in filling out her survey you can contact her directly. She is following a directive from the Governor's Florida Coordinating Council on Mosquito Control who has asked for a survey to see who is using what and at what rates, etc.

The FMCA booth also had sign-up sheets for *Wing Beats* and *Buzz Words*. The best part of the booth was that all 17 Orlando 2007 Committee Chairs were wearing their Florida Turnpike tollbooth shirts. FMCA and the state of Florida were well represented in Detroit and a huge thank you goes out to everyone who turned out to help with the booth.

**Kellie Etherson, Executive Director
Florida Mosquito Control Association**



**John Beilder and Shelly Redovan
2006 AMCA Meeting, Detroit**



FDACS News

Announcement for Public Health Pest Control (PHPC) Licensed Applicators: Continuing Education Units (CEUs)

For those of you who hold a valid Public Health Pest Control (PHPC) license to perform mosquito control in Florida, you should already be aware that you are required to receive continuing education in the category of Public Health, as part of your licensure requirements. Such training must be prior approved for CEUs by FDACS in order for you to earn CEUs.

Here are some important facts about PHPC training requirements, with which you should be familiar:

- All approved training activities for PHPC CEUs are announced on our website: www.flaes.org
 - Under Hot Topics, choose CEU Class Search



The Turnpike Gang

**Dennis Moore, Flo Jones,
Roxanne Connelly, George Heinlein,
Kellie Etherson**

- You may input a desired date range
- Scroll down to chose category "Public Health"
- Courses not listed here are not approved for PHPC CEUs.
- You must earn 16 CEUs in the category of Public Health during your 4 year license period.
- When you attend FDACS approved training, you will receive a Record of Attendance Form: you must mail the original form to our office to receive CEU credit. **BE SURE TO MAKE A COPY FOR YOUR RECORDS AND FOR YOUR EMPLOYER!**
- FDACS is not responsible for keeping track of CEUs. License holders should keep records of how many CEUs they have earned, and need to earn, to satisfy requirements.
- FDACS is not responsible for notifying license holders who do not maintain their CEUs, or for those licenses which will not be renewed due to insufficient CEU training.
- License holders are responsible for keeping their contact and employment information up-to-date with FDACS. Failure to do so may result in inactivation or revocation of license.

For further information, or to answer any questions regarding your PHPC license, please contact us:

**Bureau of Entomology and Pest Control
Mosquito Control Section
1203 Governor's Square Blvd. Suite 300
Tallahassee, FL 32301
PHONE: (850) 922-7011
FAX: (850) 413-7044
EMAIL: simpsoj@doacs.state.fl.us**

News from PHEREC

Recent publications

Floore, T. G., J. L. Petersen and K. R. Shaffer. 2006. Efficacy studies of Aquaprene (EC and WP) insect growth regulator formulations against 3rd and 4th instar *Ochlerotatus taeniorhynchus* larvae in small plot field studies. J. Am. Mosq. Control Assoc. 22(1):119-122.



POSITION IN MARTIN COUNTY:

Lab Tech – Mosquito Control – On-Call

Posted: 02/16/06

Open Until Filled

Engineering Department, Position OC0140

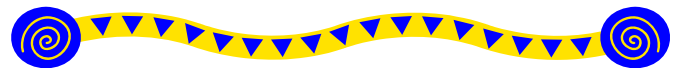
MAJOR FUNCTION: Technical work in the field and in the arthropod laboratory as part of the forecasting, surveillance and program effectiveness evaluation.

KNOWLEDGE, ABILITIES AND SKILLS:

Knowledge of basic laboratory equipment with reference to insect identification; knowledge of insect habits and habitats.

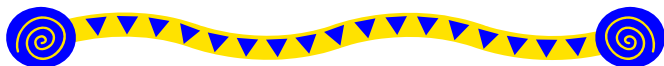
MINIMUM QUALIFICATIONS: Graduation from high school or possession of an acceptable equivalency diploma; possession of an A.A. or A.S. Degree in Chemistry or Microbiology, and/or at least two (2) years of actual experience in a water or wastewater operations.

For more details on the job description and how to apply, visit: <http://www.martin.fl.us>



News from Mosquito Control Districts

The 3rd Arbovirus Surveillance and Mosquito Control Workshop which was sponsored by Anastasia Mosquito Control District,



USDA/CMAVE/Mosquito & Fly Unit, and Clarke Mosquito Control and held on March 22-24, 2006 was quite a success! Over 100 people attended over the three day period. There was a variety of topics and presenters. Presenters offered information on their programs and progress on various research projects. The Keynote Address was given by Dr. Bob Novak on "Integrated Mosquito Management." The first Guest Address was given by Dr. Philip Koehler on "Bedbugs, Cockroaches & African Bees." The second Guest Address was given by Dr. Tong-Yan Zhao on "Mosquitoes & Mosquito-borne disease control in China." This workshop was intended to share information and ideas across research universities/institutes, districts and industries so that we may learn from one another and ultimately improve and indeed, everyone walked away having gained something more.

Gina LeBlanc
Anastasia Mosquito Control District



Florida Mosquito Control Pilots Association

Calling all Pilots!

Of the 57 Mosquito Control organizations in the State of Florida recognized by the Florida Department of Agriculture and Consumer Services (FDACS), 21 conduct aerial pesticide applications. At least, I think it is 21, according to the most recent FDACS directory on the web. I'm finding out that some listed as "AIR" don't actually have their own aerial assets, but contract for services. And some who have recently started up an aviation department aren't listed yet. There are also several commercial contractors who employ a number of pilots to conduct aerial pesticide applications throughout the state, but I couldn't tell you how many. This lack of information is frustrating, for example, when I try to put together statistical information for our Board of County Commissioners to convince them to endorse the bill to designate mosquito control pilots as special risk for retirement purposes.

This is only my fourth season as a mosquito control pilot. That's not a lot of experience, but more than some. If I start thinking about using a different formulation, or pesticide, or buying some new spray equipment, it sure would be nice

to be able to look through a directory and find someone who's already using what I'm interested in.

As a mosquito control pilot, I have two vocations: 1) Pilot, and 2) Mosquito Control. I have to maintain proficiency in *both* areas, and that requires specialized training and study. But who does mosquito control pilot training? No offense, but I don't want to go out of state to some Ag pilot school and fly an Air Tractor. I really don't think that kind of training is all that relevant to what I do.

Recently our Board of County Commissioners was addressing the possibility of finding a way to get Code Inspectors classified as special risk. I checked, and there are a *whole lot* of county positions that fall under that umbrella; probably more than there are mosquito control pilots in the entire state. I *know* what I do is hazardous; but who will speak for *us*?

At the 2006 Aerial Short Course I put forth a proposal to start up the Florida Mosquito Control Pilots Association, which was met with enthusiastic response. I handed out questionnaires and applications, and so far have gotten 23 of them back. I'm guessing that's less than a fourth of the mosquito control pilots in the state, which is great, don't get me wrong. But now I'm asking the rest of you to send in those applications and get listed in our directory. You don't have to do anything else if you don't want to.

I would like to see at the very least a quarterly newsletter addressing issues, sharing solutions, experiences, etc. I envision us conducting our own training sessions for CEUs and Wings Awards. I know there are a lot of other CFI's out there. It could help lower our insurance costs, and more importantly, *promote safety*.

If you haven't yet joined, you can e-mail me for an electronic version of the application and questionnaire, or fill out the application in this issue of *Buzz Words*. This will allow you to receive the complete directory of who's out there flying what aircraft and spraying what kind of pesticide with what kind of equipment. My address is: knightp@hillsboroughcounty.org. C'mon, it'll be fun.

Pamela Jacobson, Chief Pilot
Hillsborough County Mosquito and Aquatic Weed Control

FLORIDA MOSQUITO CONTROL PILOTS ASSOCIATION Membership Application and Questionnaire

Organization: _____

Address: _____

City: _____ Zip Code: _____ Web/Email Address: _____

Number and type of helicopters currently in use: _____

Used for (circle one): Larviciding Adulticiding Both

Spray equipment type/manufacturer: _____

Number and type of airplanes currently in use: _____

Used for (circle one): Larviciding Adulticiding Both

Spray equipment type/manufacturer: _____

Primary aerial larvicide product and formulation in use: _____

Secondary aerial larvicide product and formulation in use: _____

Primary aerial adulticide product and formulation in use: _____

Secondary aerial adulticide and formulation in use: _____

Total number of pilots: _____ Full time: _____ Part time: _____

Number of FAA Certified Flight Instructors: _____ Fixed Wing: _____ Rotary Wing: _____

We would be interested in (check all that apply):

<input type="checkbox"/> Directory	<input type="checkbox"/> Training Programs	<input type="checkbox"/> Newsletter	<input type="checkbox"/> Serving on Association Board
<input type="checkbox"/> Web Page	<input type="checkbox"/> Assisting with Training Programs	<input type="checkbox"/> Safety Seminars	
<input type="checkbox"/> Assisting with Newsletter	<input type="checkbox"/> Annual Meeting	<input type="checkbox"/> Assisting with Web Page	

Other: _____

ORGANIZATION:

PILOTS INFORMATION: (Please complete one per pilot in your organization)

Name: _____
(Last) (First) (Middle)

Address: _____
(Street) (City) (Zip)

Home Phone: _____ Work Phone: _____ E-mail: _____

Job Title: _____

Number of Years as Mosquito Control Pilot: _____

Licenses and Ratings: (Check all that apply)

<input type="checkbox"/> Comm1 Helicopter	<input type="checkbox"/> Airline Transport Pilot Helicopter	<input type="checkbox"/> Comm1 Airplane Single Engine
<input type="checkbox"/> Airline Transport Pilot Airplane	<input type="checkbox"/> Comm1 Airplane Multi-Engine	<input type="checkbox"/> Cert. Flight Instructor Helicopter
<input type="checkbox"/> Instrument	<input type="checkbox"/> Cert. Flight Instructor Airplane	

Number of flight hours:

<input type="checkbox"/> Total	<input type="checkbox"/> Helicopter	<input type="checkbox"/> Airplane Single Engine	<input type="checkbox"/> Airplane Multi Engine
<input type="checkbox"/> Dispensing Pesticides or Agricultural Products			<input type="checkbox"/> Night Vision Goggles

Please return Membership Applications and Questionnaires to:

Chief Pilot, Hillsborough County Mosquito and Aquatic Weed Control, 4220 Tampa Bay Blvd., Tampa, FL 33614

Florida Mosquito Control Association

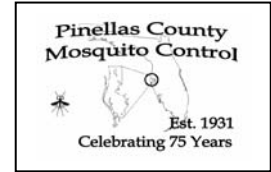
2006 SPRING CONFERENCE SECOND CALL FOR PAPERS

TradeWinds Sandpiper Hotels & Suites
6000 Gulf Boulevard

St. Petersburg Beach, FL 33706

800.360.4016/727.360.5551

May 17-18, 2006



You are invited to submit a title for a paper to be presented at the 2006 Spring Conference of the Florida Mosquito Control Association, Inc. to be held at the TradeWinds Sandpiper Hotels & Suites, May 17-18, 2006. 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: Dr. Frank Van Essen, FMCA Vice-President and Program Chair, Collier Mosquito Control District, 600 North Road, Naples, FL 34104-3464. E-mail: frank@collier-mosquito.com. Telephone: 239.436.1000; Fax: 239.436.1005.** Please submit as soon as possible so there is time to plan and organize the program.

TITLE: _____

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

1. _____

2. _____
3. _____

ORGANIZATION:

1. _____
2. _____
3. _____

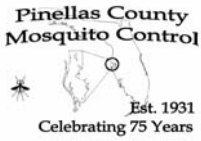
MAIL ADDRESS:

1. _____
2. _____
3. _____

REQUESTED DURATION OF PRESENTATION: ___ 10 min ___ 15 min ___ Symposium ___ Other

AUDIO/VISUAL EQUIPMENT REQUIRED: ___ Slide ___ LCD/laptop ___ Overhead ___ Other (specify)

PAPER CATEGORY: ___ Research ___ Operations ___ Regulatory ___ Other (specify)



Florida Mosquito Control Association
PO Box 358630, Gainesville, FL 32635-8630
Federal ID # 59-1819301
Celebrating Pinellas County Mosquito Control's 75th Anniversary
2006 Spring Conference
Registration Form

The 2006 FMCA Spring Conference will begin at 10:00 a.m. on Wednesday, May 17, 2006 with the FMCA Board of Director's Meeting. The general program will begin at 1:00 p.m. on May 17th and will conclude at 12:00 p.m. on Thursday, May 18th. The program will be followed by a tour of Pinellas County Mosquito Control's new facilities. The conference will be held at the TradeWinds Sandpiper Hotels & Suites which is part of the TradeWinds Island Resorts on St. Petersburg Beach.

Registration form must be faxed (352.334.2286) or mailed by **April 30, 2006** for advance registration fees. There will be no refunds given after **May 10, 2006**. If you have any questions, please call Kellie Etherson at 352.281.3020 or email her at floridamosquito@earthlink.net or ethersonk@cityofgainesville.org. Please type or **legibly print** the following information:

Name: _____
 Agency: _____
 Address: _____

 Office Phone: _____ Cell Phone (optional): _____
 Fax: _____ Email: _____

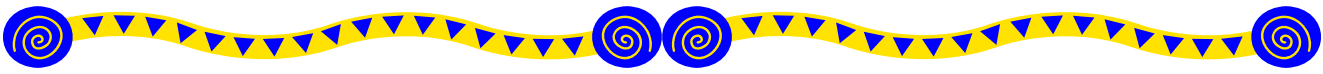
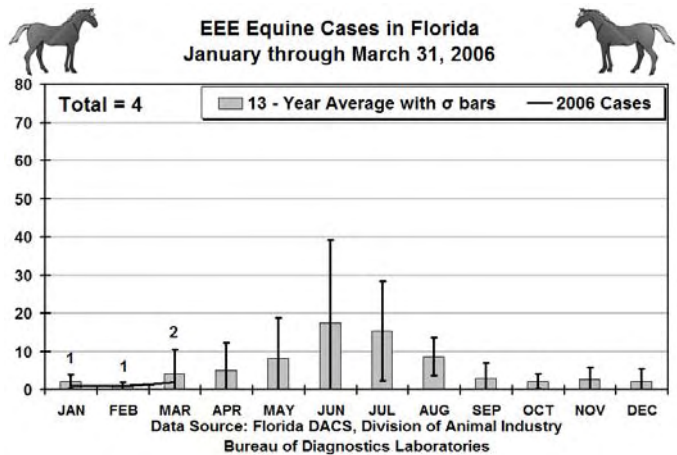
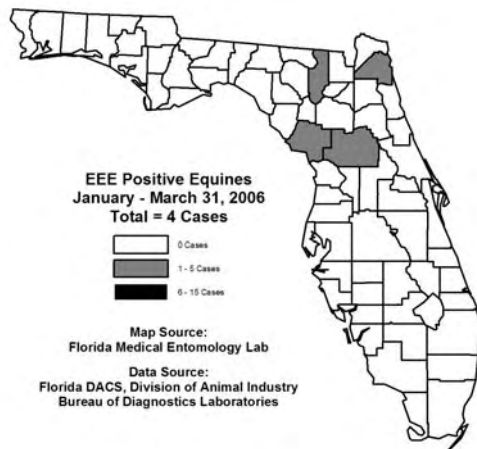
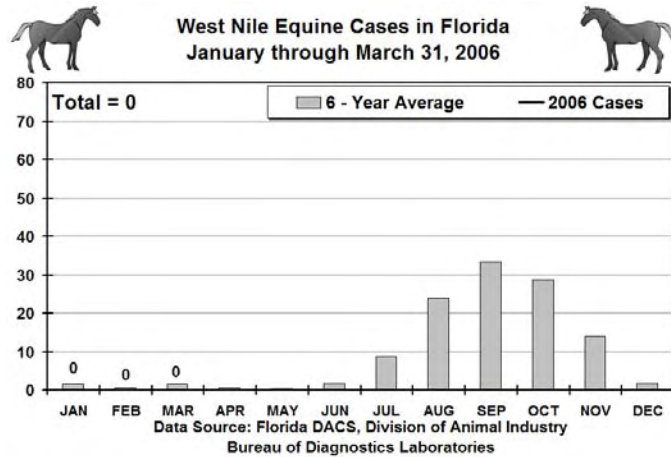
	<u>Advance Registration</u>	<u>On-Site Registration</u>
Member	\$ 85 _____	\$120 _____
Non-Member	\$100 _____	\$140 _____
Local	\$ 25 _____	\$ 35 _____
Student	\$ 25 _____	
Companion	\$ 35 _____	Name _____
Pinellas County Tour	\$ 0 _____	

TOTAL ENCLOSED: _____

TradeWinds Sandpiper Hotels & Suites, 6000 Gulf Boulevard, St. Pete Beach, FL 33706, 800.360.4016 or 727.360.5551, www.tradewindsresort.com

Room Rate: **\$130/night S/D**

These rates are subject to state and local tax and resort fees. Please identify yourself as attending the Florida Mosquito Control Association meeting. You will not be considered tax-exempt unless you pay using a tax-exempt agency check or credit card with the agency name on it. You must have a copy of your tax exemption certificate. The cut-off date for our group rate is **April 16, 2006**.



What if...

"The belief is growing on me that the disease is communicated by the bite of the mosquito...She always injects a small quantity of fluid with her bite – what if the parasites get into the system in this manner?" Ronald Ross

**To a Mosquito
By William Cullen Bryant**

Fair insect! that, with threadlike legs spread out,
And blood-extracting bill and filmy wing,
Dost murmur, as thou slowly sail'st about,
In pitiless ears full many a plaintive thing,
And tell how little our large veins would bleed,
Would we but yield them to thy bitter need.

The Florida West Nile Forecast for 2006

Florida mosquito control professionals are dusting off their crystal balls about now. The 2006 mosquito and mosquito-borne disease transmission cycle in Florida began with the usual fanfare on January 1. We are already in the April – June arbovirus amplification phase of the Florida arbovirus cycle. This is the period when West Nile virus (WNV) and St. Louis encephalitis virus (SLEV) circulate in Florida's birds and mosquitoes. The amplification phase sets up the subsequent transmission phases. Depending on the bird numbers and immune status, mosquito populations, and rainfall patterns, the stage can be set for increased transmission in the later Early (July – September) and Late (October - December) transmission phase. If Florida is to have a widespread WNV epidemic in 2006 then WNV amplification needs to occur starting now until mid-summer. So it is important for Florida mosquito control and health professionals to begin paying attention to conditions in their respective locations.

It is still early in the season, and any predictions about arboviruses are expected to be fraught with uncertainty. However, we do have a variety of indicators that must be brought to bear so that we can make predictions to determine risk; much the same way we use hurricane forecasting information to assess the risk from hurricanes. Figure 1 is the August 30, 2004 hurricane track for Hurricane Frances. Note how the uncertainty of the western end of the track is figured into the projection, such that the

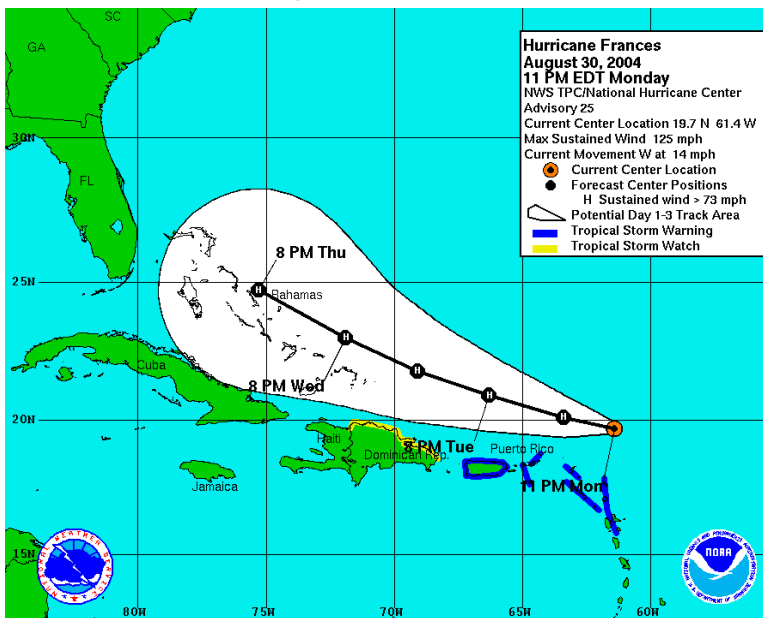


Fig. 1. Hurricane Frances, August 30, 2004.

further the hurricane is from an area, the greater the uncertainty of the track. Naturally, the closer the hurricane is to an area (southeast portion of the track in Fig. 1), the more certain the prediction. For the Florida arbovirus system we are still a long way away from an informative and accurate prediction.

Wouldn't it be nice if we could provide WNV risk maps that convey risk information similar to that provided by Fig. 1? We suggest that a WNV risk prediction map can indeed be made for specific regions and locations in Florida. Such a risk map is available at the UF IFAS Florida Medical Entomology Laboratory "Encephalitis Information System" web site (<http://eis.ifas.ufl.edu/eis1.htm>).

The Encephalitis Information System provides a broad based assessment for WNV, SLEV and Eastern equine encephalitis virus (EEV) risk throughout Florida with a discussion of the surveillance and environmental indicators used as the basis for assigning risk. Of course, since the surveillance indicators are based on a regional perspective, the smaller focal changes in many indicators will be missed, giving rise to the possibility that a focal arbovirus outbreak could occur like the WNV outbreaks in Pinellas County in 2005, and Coconut Grove in 2004.

Let's focus on the current Florida situation and assess the current arbovirus amplification phase. What should local mosquito control and public health professionals focus on during this phase to assess the potential for elevated arbovirus transmission in the subsequent Early and Late Transmission Phases? If you would like to learn more about arbovirus transmission phases and the biological and environmental triggers that increase the risk of arbovirus transmission in Florida see the following review article: J. F. Day. 2001. Predicting St. Louis encephalitis virus epidemics: Lessons from recent, and not so recent, outbreaks. *Annual Review of Entomology* 46: 111-38. Anything that improves the seasonal avian reproductive cycle, and improves the potential for bird to mosquito to bird contact serves to increase arbovirus amplification. Two environmental conditions are particularly important for increased viral amplification: 1) Hard winter freezes in peninsular Florida serve to kill cold-sensitive ground cover and open up the under story in hammocks which improves the reproductive success of ground feeding birds such as Mourning Doves and Common Grackles. 2) Winter droughts serve to increase mosquito bird

contact by bringing birds and mosquitoes together around remaining water sources. If either of these conditions occurs, they increase the risk of arbovirus transmission later in the year. As most of you likely know, most of Florida is currently experiencing severe drought as evidenced by the most recent Keetch-Byram Drought Index for April 9, 2006 which is shown in Figure 2.

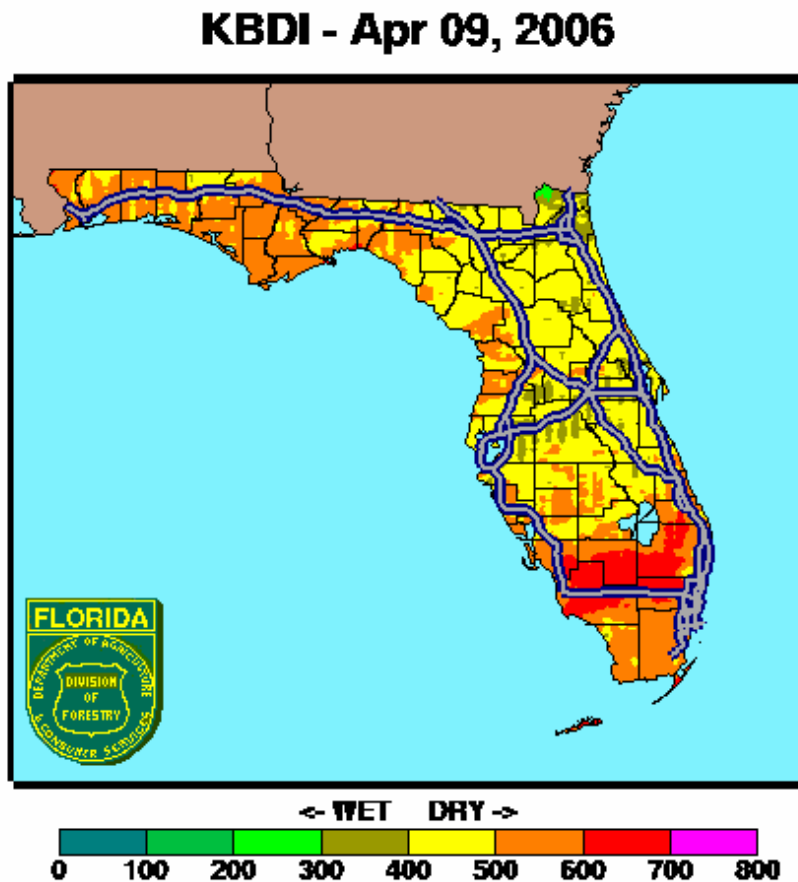


Fig. 2. Keetch-Byram Drought Index for April 9, 2006.

Florida is still several months away from the equivalent of land fall by Hurricane WNV or SLEV. However keep abreast of the amplification conditions in your area. The risk we seek to predict is the risk of a substantial outbreak, unlike anything Florida has experienced in recent years. This would be the “big event” when arboviral transmission becomes epidemic with 100s of cases in a localized region, rather than the focal 20 cases, or the sporadic 20-100 cases scattered around the state. Florida’s widespread drought (Fig. 2) may be the first step in an elevated arboviral transmission season.

Florida has experienced this before without a subsequent increase in arbovirus transmission or an epidemic. However, for each region of the state we will also need to assess the wild bird populations, their immune status, and their reproductive success during the next three months. Then we will need to assess the water parameters, and rainfall patterns, and real-time arboviral transmission as measured by sentinel chicken flocks. Areas where all of the triggers fall into place are the likely future arboviral transmission hotspots. Time will tell whether or not this will be a big year for arboviral transmission in Florida. Keep a careful watch.

**Walter J. Tabachnick and Jonathan F. Day
Florida Medical Entomology Laboratory
University of Florida - IFAS**

Deadline for submissions to be included in the May/June 2006 issue of *Buzz Words* is May 31, 2006. 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**