

Buzz Words



The Newsletter of the Florida Mosquito Control Association
July/Aug 2008

Volume 8, Issue Number 4

GMCA 31st Annual Meeting
October 15 – 17, 2008
Athens, GA

<http://www.gamosquito.org/meeting.htm>



SCMCA 2008 Annual Meeting
November 5 – 7, 2008
Ocean Creek Resort, Myrtle Beach, SC
<http://www.scmca.net/2008-2.html>



FMCA 80th Annual Fall Meeting
Nov. 16 – 19, 2008
Panama City Beach, FL
Second Call for papers inside this issue of *BuzzWords!*
Deadline to submit papers: September 15, 2008



Northeastern Mosquito Control Association
54th Annual Meeting
December 8 – 10, 2008
Providence, RI at the Marriott Providence Downtown Hotel
For more information: www.nmca.org

News from FMCA

T. Wainwright Miller, Jr. FMCA Scholarship

The Florida Mosquito Control Association Foundation is now accepting applications for the T. Wainwright Miller, Jr. Florida Mosquito Control Association Scholarship. The scholarship is now open to graduate students as well as undergraduates. See the application in this issue of *BuzzWords*. Deadline to apply is October 15, 2008.

News from FMEL

The 2009 Advanced Mosquito Identification and Certification Course will be held March 2 – 14, 2009. On-line registration will open on September 2, 2008. <http://mosquito.ifas.ufl.edu>

More districts are finding *Culex coronator* in their light trap collections, and this species looks like a couple of other species that we have in Florida. Look for a quick key to separate *Culex coronator*, *Cx. tarsalis*, *Cx. bahamensis*, and *Cx. declarator* in the next issue of *BuzzWords*. **(This item appeared in the May/June issue of *BuzzWords*; however, the quick key will be published in the Oct/Nov 2008 issue)**

To link to the Modeled Water Table Depth and KBDI analysis:
http://mosquito.ifas.ufl.edu/MWTD_Risk_Model.htm

News from PHEREC

Harry Zhong and Jack Petersen participated in the XXIII International Congress of Entomology [ICE], Durban, South Africa, July 6-12, 2008. Harry's presentation was entitled "Permethrin aerial ULV spray efficacy for controlling salt marsh mosquitoes and potential impacts on fish." Jack's talk was "State-wide monitoring of mosquito insecticide resistance in Florida, USA." The abstracts of both presentations are available online at the ICE Website: <http://www.ice2008.org.za/>.

As a follow-up to the Panhandle Mosquito Control Directors' Caucus that was held at the 12th Annual Southeast Conference, an online networking site has been created. Go to: <http://floridamosquito.ning.com/>. Just sign in as a guest and have a look around. You are welcome to join us, if you like!

**"Do not use a
canon to kill
a mosquito."
---Confucius**

Job Announcements

Seminole County Mosquito Control

Team Leader/Technician; Working Area: **Mosquito Control;** Pay Rate \$15.91-26.25/hour (\$33,080-54,582/year)

GENERAL STATEMENT OF JOB

Performs specialized work involving the supervision of mosquito control field operations. Works under the direction of the Manager and is expected to exercise considerable independent judgment to accomplish work with a minimum of supervision. Work also includes performing the functions and duties of a Mosquito Control Technician.

ESSENTIAL FUNCTIONS

Assists in coordinating field evaluations of pesticides and application equipment. Supervises field surveillance, larviciding and adulticiding operations and evaluates the effectiveness of these operations. Conducts field inspections to detect the presence of mosquitoes; sets and retrieves mosquito traps. Ensures all spray equipment is calibrated according to label specifications.

Conducts quality assurance evaluations and oversees the safety program. Assigns complaint investigations to the appropriate personnel. Evaluates work performance and abilities of subordinates. Applies natural predators known to be effective against immature mosquitoes. Maintains records and completes reports. Maintains daily records of areas sprayed, to include location, time, volume of chemicals used and miles traveled. Establishes and maintains effective working relationships with other employees and the general public. Maintains Sentinel Chicken Flocks and performs other duties of mosquito-borne virus surveillance. Provides information to the public on the production and elimination of mosquitoes. Responds to citizens' requests in a courteous and timely manner. Conducts Out-Reach and Public Education programs as assigned by Manager. Participates in continuing education on Public Health Pest Control and federal, state and county laws and regulations governing pesticides. Keeps abreast of advancements in the mosquito control field through self-study and professional training courses.

MINIMUM QUALIFICATIONS

High school diploma or GED and three (3) years of experience in all phases of mosquito control to include one (1) year of supervisory experience. Mosquito control supervisory experience preferred. Must be able to calibrate spray equipment for proper application rate. Knowledge of the geographic layout of Seminole County is a plus.

SPECIAL REQUIREMENTS

Must possess a valid Public Health Pest Control certification issued by the State of Florida Department of Agriculture and Consumer Services or obtain within 90 days of appointment. Must possess and maintain a valid Florida Driver's License. Must be able to work evenings, weekends, holidays and/or rotating shifts.

TECHNICAL REQUIREMENTS: Knowledge of the technical aspects of mosquito control operations.

WORKING CONDITIONS: Working extended hours outdoors in high temperatures and humidity.

HOW TO APPLY: Send resumé by e-mail or mail. Position open until filled.

SEMINOLE COUNTY MOSQUITO CONTROL

177 Bush Loop
Sanford, FL 32773
407-665-5542

mosquito@seminolecountyfl.gov



Brevard County, Florida Mosquito Control - Manager of Operations

Job #: 8-01886

Salary Negotiable Based Upon Experience and Qualifications

The Brevard Board of County Commissioners, serving as the Governing Board for the Brevard Mosquito Control District, is seeking a qualified professional to serve as the Mosquito Control Manager of Operations. Under the administrative direction of the Mosquito Control Department Director, this position will perform skilled technical and professional entomological work directing and coordinating all operations of an integrated mosquito control program and aquatic weed control program for Brevard County. Supervision is given to professional, technical, field, and clerical staff.

Community: Located half-way between Jacksonville and Miami, and just 35 miles east of Orlando, Brevard County is an extra-long county extending over 70 miles from north to south, but only a handful of miles inland from the seacoast at any point. Brevard County has a total area of 1,557 square miles, of which 1,018 square miles is land, and 539 square miles is water (34%). The County is bordered on the west by the St. Johns River basin and on the east by the Atlantic Ocean. The Indian River Lagoon system lies between the mainland, barrier islands and Atlantic Ocean. In marshes, in the western part of Brevard County, is the source of the St. Johns River.

Formerly known as "Mosquito County," Brevard County is influenced by a temperate climate to the north and a warm tropical climate to the south, which allows for an unprecedented amount of diversity for one county. Brevard also exhibits the largest collection of endangered wildlife and plants in the continental United States. With its tropical and sub-tropical weather, more than 500,000 people call its 16 municipalities and unincorporated areas "home." Because of the presence of the John F. Kennedy Space Center, and numerous aerospace and defense contractors, Brevard County is also known as the Space Coast.

Mosquito Control in Brevard County: The Brevard Mosquito Control District has approximately 70 employees operating out of three office locations countywide, and an annual budget of approximately \$9.6 million. The Brevard Mosquito Control District is operated as a County Department reporting to the appointed County Manager that carries out the will of the elected Board of County Commissioners. The Brevard Board of County Commissioners also sits as the Governing Board for the Brevard Mosquito Control District.

The District controls mosquito populations by many means including ground and aerial larviciding, ground and aerial adulticiding, aquatic weed control, domestic and commercial inspections, source reduction methodologies, impoundment management and maintenance, waste tire abatement, disease monitoring and reporting, maintaining water body inventories and treatments, arbovirus surveillance, mosquito surveillance, impoundment restorations, resistance and chemical testing, environmental monitoring, and through numerous biological controls. Unique to Brevard County are the cooperative agreements established with NASA and U.S. Fish and Wildlife which allows the District to conduct operations on federal and state wildlife refuge and conservation lands. Brevard County also operates and maintains the State's largest impoundment system with over 25,000 acres of salt marsh mosquito impoundments. These numerous and countywide salt marshes and mangrove forests have historically been prolific breeders of salt marsh mosquitoes. Though managed and maintained by the District, these properties are held by a mix of local, state federal and other private land owners. Prolific fresh water mosquito breeding activity is also experienced from the St. Johns River basin and from numerous lakes and other fresh water sources county-wide. The department is also currently

developing a public relations program and implementing electronic automation and other field technologies.

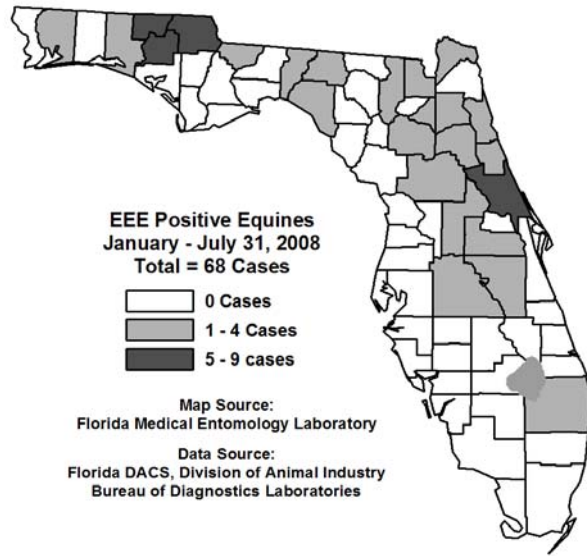
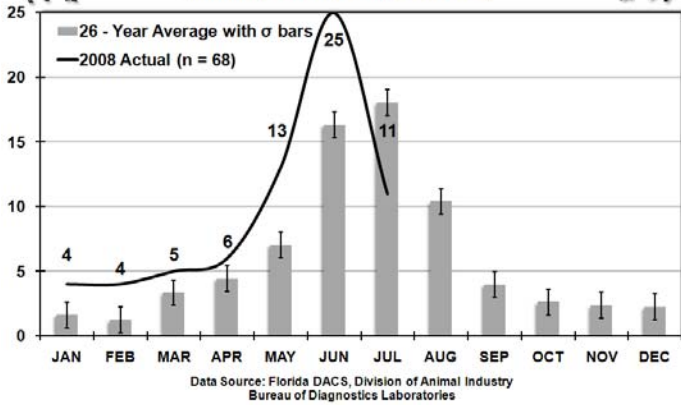
Qualifications/Requirements: This position is responsible for all day to day operations of the Mosquito Control and Aquatic Weed Control programs to include managing, planning, directing, and coordinating all aspects of operations, administrative and supervisory work directing operational personnel, and for the maintenance of District equipment, grounds, and facilities. This position may be required to serve as the County's state certified Mosquito Control Executive. Interested and qualified candidates must meet the following qualifications and requirements:

Graduation from an accredited college or university with a Bachelor's degree in the basic sciences and course work in entomology, biology, chemistry and/or other related courses, as outlined in Florida Administrative Code 5E-13.032 by the Florida Department of Agriculture and Consumer Services, PLUS five (5) years of biology or related environmental experience which includes four (4) years mosquito control and three (3) years of supervisory/ management experience. Additional qualifying education or experience which provides the necessary knowledge, skills or abilities may be substituted one for the other on a year for year basis. Must possess, or obtain within six (6) months of employment, a valid Florida Department of Agriculture and Consumer Services (FDACS) Pesticide Applicator License in the Public Health Pest Control category, as set forth in Florida Statute 388.361(4). Must possess or obtain within six (6) months of employment, the FDACS Bureau of Entomology and Pest Control Mosquito Control Director III certification, as defined in Florida Administrative Code 5E-13.032, Aquatic Pest Control Applicator certification, and Aerial Applicator certification. Other State certification equivalents can be accepted when current State Of Florida certifications and licenses are obtained within six (6) months of employment.

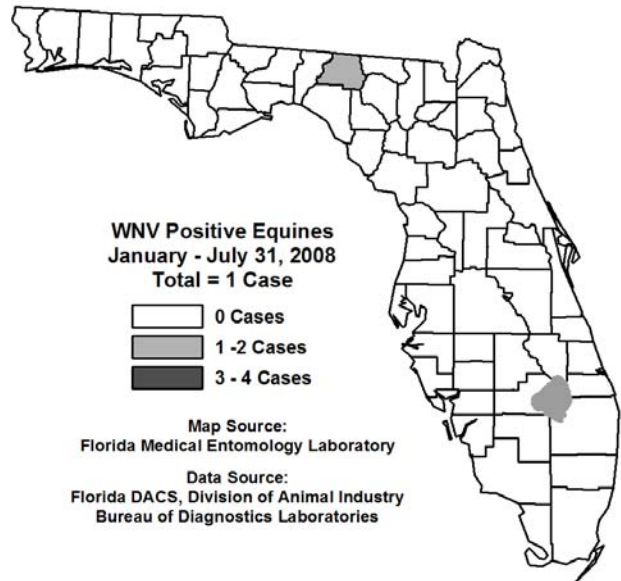
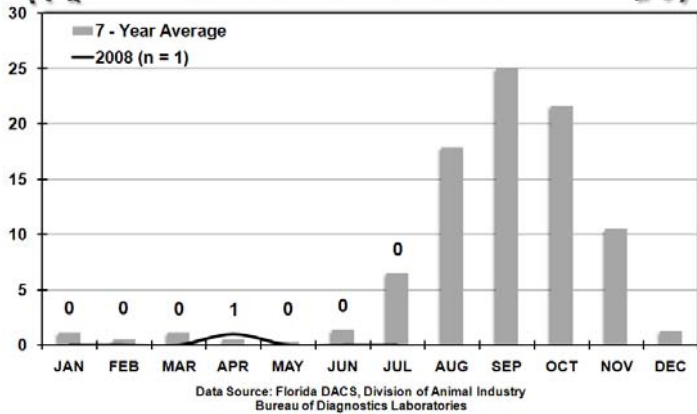
Thorough knowledge of methods and application processes for mosquito and aquatic weed control; Thorough knowledge of the laws, rules and regulations relating to mosquito and aquatic weed control; Good knowledge of the basic concepts of: biology, entomology, invertebrate zoology, aquatic weed control and aerial mosquito control operations; Good knowledge of management principles and practices; including, budgeting, personnel management and procurement; Good knowledge of research techniques; Good knowledge of office computer user programs; Excel, Word, Power Point and GIS operations (Arc view GIS 3.1 or later); Ability to plan, organize, and direct the personnel and materials of a mosquito control program; Ability to analyze data and prepare reports and to develop, interpret and enforce program procedures and policies; Ability to promote and maintain a good public image and to communicate effectively, both orally and in writing; Ability to respond to public inquires, problems/complaints, investigations and resolutions regarding mosquito and aquatic weed control services; Ability to present operational issues incorporating oral and visual displays to officials, community groups and organizations; Established management and supervisory ability, and proven ability to maintain effective working relationships; Heavy physical work and ability to pass respirator physical may be required.

How to Apply: Applicants should submit a cover letter, application, resume and salary history by September 8, 2008 to Brevard County Human Resources Department, 2725 Judge Fran Jamieson Way, Building B, Suite 209, Viera, FL 32940; by fax to 321-633-2036 or email to Karen.conde@brevardcounty.us Salary is negotiable based upon experience and qualifications. The County is offering a full benefits package including state retirement, life insurance, short-term disability insurance, optional insurance plans (medical, dental, vision, supplemental life, long-term disability), paid vacation and sick days, holidays, licensing fee reimbursement, tuition reimbursement and more. Brevard County is an Equal Opportunity Employer. Applicants should be aware that applications in Florida become a matter of public record upon receipt.

**EEE Equine Cases in Florida
January through July 31, 2008**



**WNV Equine Cases in Florida
January through July 31, 2008**



**Florida Mosquito Control Association
LASTCALL FOR PAPERS
80th ANNUAL FALL MEETING
Bay Point Marriott, 4200 Marriott Drive
Panama City Beach, FL 32408-8019; 850.236.6000
November 16 – 19, 2008**

You are invited to submit a title for a paper to be presented at the 2008 80th Annual Fall Meeting of the Florida Mosquito Control Association, to be held at the Bay Point Marriott, 4200 Marriott Drive, Bay Point, FL from November 16-19, 2008. 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 Dennis Moore, Pasco County Mosquito Control District, 2308 Marathon Road, Odessa, FL, 33556, E-mail: dmoore@pascomosquito.org, Telephone: 727.376.4568; FAX: 727.376.4704. Deadline to submit a paper is September 15, 2008.**

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)

T. Wainwright Miller, Jr. FMCA Scholarship Application

The Florida Mosquito Control Association Foundation is now accepting applications for the T. Wainwright Miller, Jr. Florida Mosquito Control Association Scholarship.

The purpose of the Scholarship is to encourage and assist students having a major in Biological, Ecological and/or Entomological studies who are seeking degrees relevant to arthropod control, with particular emphasis on Public Health fields. First place recipients will receive a one-time scholarship award of \$2,000.00, while second place recipients will receive \$500.00.

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

1. The student shall be an undergraduate or graduate. Undergraduates will have completed at least two years of academic study with a minimum of 30 credit hours.
2. The student shall be a United States citizen residing in the state of Florida.
3. Undergraduates shall have maintained an overall grade point average of 3.0 (out of 4.0) during the last 2 years of academic study.
Graduate students must have completed at least one full semester of graduate course work and shall have a grade point average of 3.0 or higher (out of 4.0) for all graduate course work completed by October 15, 2008.
4. The student shall be enrolled in an accredited College or University in the state of Florida.
5. The student shall be majoring in a field of study having relevance to arthropod control and/or public health.
6. The student shall submit three letters of recommendation, two of which are from professors affiliated with an accredited College or University in which the student is enrolled.
7. The student shall be encouraged to seek summer employment with a local mosquito control district for at least one summer during the award period.
8. The scholarship recipient will be provided a gratis membership in FMCA during the period of the award. The recipient is expected to attend at least one of the two annual Florida Mosquito Control Association meetings. Graduate student recipients will be required to present a paper on their research during an FMCA meeting.

A completed application must contain the following:

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

PROCEDURE FOR SUBMITTING APPLICATION

Four copies of application materials should be mailed to the Executive Director, Kellie Etherson, Florida Mosquito Control Association, P.O. Box 358630, Gainesville, FL 32635-8630 and *postmarked on or before* October 15, 2008.

Maximizing Use of Aerial Assets

Aerial assets are a very important part of a mosquito control program. Whether used primarily for larviciding Florida's vast salt marshes along 2,276 miles of tidal shoreline, or making ultra-low-volume applications of adulticides over urban and suburban areas of the state's 54,254 square miles of land mass, one aircraft can treat more acres and access more areas than a whole fleet of wheeled vehicles.

An advantage to having aircraft, which is often overlooked, is that of observation. Pilots are literally the mosquito control manager's "eyes in the sky." Whether performing their regular duties, or conducting proficiency training, or simply "exercising" the aircraft, pilots are able to regularly survey their territory from the air. This is a valuable tool which is all too easily overlooked and under-utilized.

Pilots that are employed merely as equipment operators and sent out to treat assigned areas with little or no input will do just that. Mosquito control pilots have the capacity to develop and manage their own aerial programs. When encouraged and trained to expand their knowledge of mosquitoes, pesticides and equipment, they can add valuable input to the decision-making process. They know the hot spots. They see when they are wet and when they dry up. They can monitor weather patterns and tidal activity, and learn to interpret the information to anticipate hatches and emergence. If they understand the significance of what they see during their flights, they can bring back valuable information to managers.

In the time I have been with Hillsborough County Mosquito Control, I have been fortunate to attend a number of FMCA, and even a few AMCA meetings, and found each one to be a virtual fountain of knowledge from which to soak up information. I have learned from other pilots, program directors, entomologists, scientists, commercial vendors, and various other sectors of the mosquito control industry. I have brought back new ideas and fresh perspectives, and used them to improve and streamline our program over the years. I believe all pilots can benefit from attending these conferences, but unfortunately few are granted that privilege.

The Florida Mosquito Control Pilots Association was formed to share information among pilots. During each of our meetings I have been gratified to see how many ideas, experiences and observations have been shared. Now we are in the process of forming a larger association to include pilots from throughout the Americas.

The Association of Mosquito Control Pilots of America will be inaugurated during the AMCA meeting in New Orleans next April. With the support of the Aerial Subcommittee, I plan to petition mosquito control programs with aerial assets to send their pilots to that conference, which will include a first-ever Aviation Symposium. Future gatherings of the AMCPA will be held in conjunction with AMCA meetings.

I would like to see the FMCPA follow suit, and meet annually at the Fall FMCA meeting. I realize that the expense of travel and registration is a lot to bear for a mosquito control organization, but I believe it would be money very well spent. These highly trained professionals manage expensive and valuable assets. Investing in their education and safety will assuredly yield tremendous dividends.

**Pamela Jacobson, Chief Pilot
Hillsborough County Mosquito Control**

Mosquito Control and the Challenge of Delusory Parasitosis

Mosquito control programs often receive urgent pleas from individuals who believe that they are suffering from insects that are biting, crawling, or burrowing under their skin despite an inability of these individuals to see or collect any arthropods. The sufferer may repeatedly visit mosquito control with a plea for professional assistance or for information to reduce or terminate the symptoms of the affliction. What is the best response to assist someone with this very real problem?

I had not encountered this problem before moving to Florida. However, as Director of the Florida Medical Entomology Laboratory I have met several individuals suffering from these symptoms over the past 10 years. I am sure this is not an uncommon experience in Mosquito Control Districts throughout Florida. Each of the individuals suffering from these unseen insect bites hopes, pleads, and demands a solution for their plight. This is a real challenge for the entomologist because in these instances there is no evidence of any kind that the symptoms are due to a biting arthropod. Indeed, in many cases the sufferer may freely admit seeking other professional advice, from a physician, professional pest control company, or other entomologists, all of whom were unable to ever see the suspected pest arthropod. Anyone who has ever tried to assist someone in this predicament is aware of the absolutely deep unshakable conviction such that, no matter what the evidence presented, the sufferer cannot be dissuaded that a small unseen arthropod is the cause of the problem.

The medical profession has a name for this form of behavior, a behavior so strong that it becomes a "fixed belief" that cannot be changed despite all evidence to the contrary. It is a "delusion" and this particular unswayable delusion is called "delusory parasitosis" (see Hinkle, N.C. 2000. Delusory parasitosis. Amer. Entomol. 46: 17-25) or DP.

My own personal experience with sufferers of DP supports the experiences of other scientists presented in the scientific literature. Sufferers make it known quickly that the symptoms have caused extreme and lengthy hardship. I have met people who cannot work, have destroyed their furniture, have moved multiple times, and have continually cleaned and scrubbed everything they own. Relationships with other family members, wives, and children can be strained or savaged. Many tried repeated pesticide applications, and several placed themselves in extreme danger through their use of home remedies. One poor unfortunate fellow told me he was drenching his skin daily with salad oil to reduce the insect biting. He then showed me rashes on his arm that he was certain were the result of invisible insects. I could not dissuade him from self medicating and could not convince him that the cause of his rash was likely the liberal home remedy dosing he was subjecting himself to. To a person, each of my experiences was with someone who had sought medical and other professional assistance, all to no avail. The symptoms persisted and the individual was clearly at wits end. All of these individuals wanted someone to make the symptoms go away.

Each DP sufferer is convinced that their symptoms are the result of unseen insects. I have gone through the same set of experiences with each of the individuals I have tried to help. It is important to be compassionate and understanding. Often individuals bring samples collected on clear tape that they believe to be clear proof of an arthropod cause of their distress. If they have not made a collection, I always request that they attempt to do so. Each time I look at these collections with the expectation that perhaps there might indeed be a small arthropod, evidence of a mite, or some biological cause for the problem. I have looked at a lot of dust, lint, fur, animal hair, all meticulously vacuumed from the home. Despite my lingering curiosity that sometime there might actually be something to support the belief of an arthropod as the cause; I have never seen an arthropod-positive collection. So I was just another skeptic, and the

sufferer was again disappointed and left without the sought after cure. One has to feel sorry for their plight. It is very real.

Where does this leave the mosquito control professional in trying to assist people with these symptoms? Many sufferers have already seen a physician, they may even have been helped for a while, but the symptoms have returned. The most important advice I can offer: be compassionate! There may be other causes of the symptoms, not an arthropod, but other environmental and biological causes. Be compassionate and advise that although you could not find an insect as the cause, the symptoms they are experiencing are real and they should see a physician to determine the cause.

You have to feel sorry for these poor unfortunates, suffering from a condition that no one is able to alleviate. By the way, although my scientific side knows that the DP sufferer I have advised is not being attacked by insects, when they leave my office, as many other entomologists have already admitted, I do take notice if I should experience any itching after they leave. This is one powerful delusion.

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

Resources

Below is a list of resources that should provide some insight and hopefully be of use to mosquito control employees who encounter clients with mystery itches:

Delusory Parasitosis (Hinkle 2000) <http://www.ent.uga.edu/pubs/delusory.pdf>

Delusory Parasitosis: Bugged by "Bugs" (Kelly 2004):
<http://health.state.ga.us/pdfs/epi/gers/ger1204.pdf>

Invisible Itches: Insect and Non-insect Causes (Potter and Koehler):
<http://edis.ifas.ufl.edu/mg343>

The deadline for submissions to be included in the
Sept/Oct issue of
BuzzWords is Sept 30, 2008

Please send change of address or newsletter submissions to:
Roxanne Connelly, Editor, 200 9th Street SE, Vero Beach, FL 32962
or buzzwords@ifas.ufl.edu