

## NEW JERSEY MOSQUITO CONTROL ASSOCIATION, INC. NEWSLETTER

VOL. XVI NUMBER 1 January, 2004

### Report from the Office of Continuing Professional Education (OCPE)

It is that time of the year again when we are up to our necks in training sessions, meetings, annual reports, classes, winter research, surviving the holidays and taking some much needed time off.

**Pesticide Training Credits:** The NJMCA Professional Training Committee is preparing for this years annual training sessions. The dates are 9-Mar-04 in Atlantic City and 23-Mar-04 in New Brunswick, so mark your calendars and keep the dates open. Last year we set an all time attendance high and hope to continue the trend in 2004. We are planning a program that will provide credits in Core, Categories 8A, 8B, 10 and 11.

We will be holding the second annual "Mosquito Jeopardy" games and are looking for individuals who want to participate. If you would like to enter a team of your own or be placed on a team, contact me directly via e-mail [scrans@aesop.rutgers.edu](mailto:scrans@aesop.rutgers.edu) or phone 732.932.9565. We will have nice gifts again for everyone that participates in the games. The event was fun last year and proved to be an entertaining method for reviewing the basic information we are all supposed to know. Committee members are hard at work making changes to last years prototype game & addressing areas that need review.

Last years winners were: In Atlantic City - The Swat Team: Christine Musa, George Hamilton, Bill Zawicki, and Rod Schmidt and in New Brunswick Gary D. and the pipiens: Gary Donato, Jennifer Gruener alias (Scigilano), Priscilla Collins, and Karen Fogg - Congratulations again for a job well done!

Those who plan to attend this year's NJMCA training session can register electronically by visiting the NJMCA website @ <http://www-rci.rutgers.edu/~insects/njmca.htm> and clicking on the appropriate link.

**NJMCA Poster Session:** We will be holding a poster session during the meetings in Atlantic City coordinated through my OCPE office. If you have interesting information you want to share without giving a formal paper at the meetings, take advantage of this session and put a poster together. We will have room to display twenty posters on a first come first served basis. To reserve poster space, e-mail your name, agency affiliation, and title to [scrans@aesop.rutgers.edu](mailto:scrans@aesop.rutgers.edu). Submitted posters will be listed in the annual meeting program. Additional information on the poster session can be obtained by visiting the NJMCA website <http://www-rci.rutgers.edu/~insects/njmca.htm> and clicking on the appropriate link.

**Upcoming Training Courses:** Rutgers will not be offering the mosquito biology and control course for the first time in 4 years. Enrollment has dropped off, and it is time to develop other courses for the mosquito control community. We do plan to put together a "New Superintendent/Director" course which was originally targeted for last year but scrapped because of the university budget crisis, new biologist search, and related time constraints. While some of these issues have resurfaced in 2004 we will offer a Basic Core and Category 8B training course for new mosquito control personnel who want to become certified pesticide applicators as well as those who require worker orientation and pesticide application skills for new pesticide operators. Currently the standard BASIC PESTICIDE TRAINING COURSES are scheduled for January 16, February 13 (Spanish), March 19 (Spanish), April 16, May 14, June 11 (Spanish). Contact CLAUDINE OLESKIN at 732.932.9271 ext. 614 or e-mail [coleskin@rci.rutgers.edu](mailto:coleskin@rci.rutgers.edu) for more information.

**Contact Information:** *Scott C. Crans* Office of Continuing Professional Education 102 Ryders Lane New Brunswick, NJ 08901 Office Phone 732.932.9271 voice mail box Lab Phone 732.932.9565 E-mail [scrans@aesop.rutgers.edu](mailto:scrans@aesop.rutgers.edu) Web site <http://aesop.rutgers.edu/~ocpe>

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**NJMCA Photo Salon:** Attention all members! Its never too early to start thinking of this year's photo salon. Last year, \$350 was doled out to the winners. I would like to say that everyone who entered last year was a winner, but the reality was that there was only one winner: Dr. Peter Bosak of the Cape May MEC. He won 4 categories; I suspect that's some sort of modern day record. Wake up folks!...it was a landslide! Peter laughed all the way to the bank. We need someone to step up to the plate and provide a challenge...and that person could be you!

Entries can be sent to me starting today. I don't know the categories yet, but they will probably be similar to last year... as will the jovial comments that I'll provide while showing your slides. Remember, we're only going to use digital images. If you have others, send them to me in advance of the annual meeting and I'll convert them for you.

See you in Atlantic City, *Tadhgh Rainey Chair Photo Salon*

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**ITEMS NEEDED! SILENT AUCTION** New Jersey Mosquito Control Association 2004 Annual Meeting

Firstly, I would like to thank everyone who participated in last years silent auction at the 2003 Annual Meeting of the New Jersey Mosquito Control Association and helped make it a success. One of the main objectives of the association is to support education and research in mosquito ecology and control. The NJMCA now offers two scholarships. The Jobbins Scholarship honors the contributions of the late professor Daniel Manley Jobbins of Rutgers University in the field of mosquito biology and control and the Educational Scholarship. In order to support this objective the Association holds a silent auction in which all of the proceeds go towards the scholarship funds. I would like to at this time ask you to help the Association in this endeavor by donating an item to the Silent Auction at the upcoming meeting. The silent auction provides an opportunity for all of us to support the research endeavors of graduate students in New Jersey, as well as purchase some unique items. If you are interested in donating an item or have additional questions please contact me at the address below.

*Sean P. Healy Silent Auction Coordinator Scholarship Committee*

Monmouth County Mosquito Commission Eatontown, NJ 07724 Phone: 732 542-3630 FAX 732 542-3267 E-mail: [shealy@co.monmouth.nj.us](mailto:shealy@co.monmouth.nj.us)

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**New Jersey Mosquito Control Association Annual Meeting**

**March 10-12, 2004 Trump Marina Hotel Casino, Atlantic City**

**PRELIMINARY PROGRAM**

## **WEDNESDAY, MARCH 10**

Morning Session, Grand Cayman A William Zawicki, Moderator

8:30 am Welcome and NJMCA Presidential Address William Zawicki

8:45am AMCA Update Roger S. Nasci, President, American Mosquito Control Association

9:15 am Report of the State Mosquito Control Commission and Office of Mosquito Control Coordination Robert Kent, NJDEP Office of Mosquito Control Coordination

9:35 am State Mosquito Control Commission Equipment Update Claudia O'Malley, Office of Mosquito Control Coordination

9:55 am Office of Continuing Professional Education Scott Crans

SYMPOSIUM: SURVEILLANCE TECHNIQUES Christine Musa, Moderator 10:30-11:45 am

Inspecting Backyards - Heather Lomberk, Cumberland County Mosquito Control and Salem County Mosquito Commission

Inspecting Horse Farms/Facilities-Jennifer Scigliano, Rutgers University, Mosquito Research & Control

Preliminary Investigations with Elevated EVS Traps Ary Farajollahi & John Phelps, Mercer County Division of Mosquito Control

Captive Sentinel Birds for Mosquito Borne Disease Surveillance Sean Healy, Monmouth County Mosquito Extermination Commission

Collecting Mosquitoes from Hibernaculae Glenn Levinson, Hudson Regional Health Commission

11:45-12:00 Noon- Attendees Group Photo Grand Cayman B

ANNUAL BUSINESS MEETING 12:00 noon- 2:00 pm (Luncheon tickets required) Grand Cayman C

Afternoon Session: Grand Cayman A Peter Pluchino, Moderator

2:00 pm Mosquito and Amphibian Associations Kristen Bartlett, Department of Entomology, Rutgers University 2002 NJMCA Jobbins Scholarship Recipient

2:20 pm Comparison of Feeding Strategies of Colony-maintained and Field-collected *Culex pipiens* Priscilla Collins, Department of Entomology, Rutgers University

2:40 pm Classification of Mosquito Life Cycle Types Revisited Wayne Crans, Dept. of Entomology, Rutgers University

3:00 pm New Jersey State Surveillance Program, 2003 Lisa Reed, Dept. of Entomology, Rutgers University

3:20 pm Anvil Trials in Cape May County, NJ Peter Bosak, Cape May County Mosquito Extermination Commission

3:40 pm Residual Pesticide Monitoring in Bergen County (tentative title)- Roy Meyer, New Jersey DEP

4:00 pm An Examination of Environmentalist's Claims About Pesticides- Angela Logomasini, Competitive Enterprise Institute

4:20 pm EEE Biosafety Considerations Rose Puelle, Monmouth County MEC and Rutgers University, Department of Entomology

Exhibitor's Reception 6:30-7:30 pm

## **THURSDAY, MARCH 11 8:00 am**

Exhibitors Breakfast and Presentations- Grand Cayman A

Morning Session: Grand Cayman A

9:15 am KEYNOTE SPEAKER: WNV – A National Perspective Roger Nasci, Centers for Disease Control and Prevention and AMCA President

9:45 am Culex Mosquito Populations and WNV Activity in Hunterdon County, 2003 Tadhg Rainey, Hunterdon County Mosquito Control

10:15 am WNV Laboratory Results Rose Puelle and Lisa Reed, Monmouth County MEC and Rutgers University Department of Entomology

REGIONAL WEST NILE PRESENTATIONS 10:45-11:45 am

THURSDAY AFTERNOON SESSION SYMPOSIUM: “Back to Basics” Larval and Adult Mosquito Control Marc Slaff, Moderator Symposia under construction; below are broad topics for illustrative purposes; submitted papers listed under each topic; interested pre-senters should contact Marc Slaff or Vicki Thompson (see below) 1) Finding mosquitoes- establishing a mapping and record system (new programs, GIS) Municipal and Private mosquito control permits- the process 2) Interpreting surveillance data for control 3) Fundamentals of larviciding (2-3 papers), including when to larvicide, choices of equipment, products and calibration of equipment 4) Adulticiding- action thresholds, ground vs. air, products and calibration (2+ papers) 5) Source reduction- when to implement water management, and how 6) Source reduction- other considerations such as tire removal, catch basins and backyard production Mosquito larvae in swimming pools- Warren County Mosquito Extermination Commission 7) Biological control- should this be a part of your program? Using fish to control mosquito larvae in ornamental pools Christine Musa, Warren County Mosquito Extermination Commission

COMMISSIONERS' SESSION Thursday, March 13, 2003 1:00-3:00 pm Hatteras I Mosquito Control in NJ Cooperative efforts of State, University and local programs

SILENT AUCTION Set-up 4:00-5:30 pm, Preview 5:30-6:30 pm, Bidding 6:30-7:30 pm

NJMCA BANQUET 6:30-9:30 pm Grand Cayman C

## FRIDAY, MARCH 12

Morning Workshop: 9:00 am ESRI Training

ANYONE ELSE WISHING TO PRESENT AT THE MEETING CALL NJMCA Program Chair, VICKI THOMPSON at (732) 542-3630 Or e-mail [vthomps@co.monmouth.nj.us](mailto:vthomps@co.monmouth.nj.us) POSTERS? Submit to above e-mail address

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## **New Jersey State Mosquito Control Commission's Bio-Control (Mosquitofish) Program: 2003 Update**

*Sean McManus, Claudia O'Malley, & Robert Kent*

New Jersey's mosquito control community endorses an Integrated Pest Management approach to control. Components of such a program include the use of pesticides, water management and bio-control agents. The most visible form of mosquito control is often the application of pesticides to control both larva and adult mosquitoes. Pesticide applications often offer only temporary relief from recurring problems.

Water management provides a more permanent solution to mosquito production problems. This can include the raising or lowering of water levels in mosquito breeding habitats; the removal of shallow, stagnant, standing water reduces larval habitat. Increasing water levels allow for the establishment of larvivorous fish populations.

Fish that are used as bio-control agents for mosquito control consume mosquitoes in the aquatic stages of the life cycle and prevent them from becoming adults. Fish are small enough to swim into shallow areas and have the ability to penetrate densely vegetated areas that mosquito larvae occupy. Fish that are used for control should be surface feeders, in order to prey on larvae and pupae.

The Bio-Control (Mosquitofish) program is a free fish-stocking program available to the county mosquito control agencies and is used as a part of the Integrated Pest Management approach to mosquito control. The State Mosquito Control Commission funds the program at the Division of Fish and Wildlife's Charles O. Hayford Fish Hatchery at Hackettstown. Division staff assist the mosquito control community by providing several species of fish for release throughout the state in mosquito breeding habitats. The Mosquitofish, *Gambusia affinis*, is the most commonly stocked fish. Other fish used in the program include the Fathead Minnow, *Pimephales promelas*; the Freshwater Killifish, *Fundulus diaphanus*; the Bluegill Sunfish, *Leopomis macrochirus*, and the Pumpkinseed Sunfish, *Leopomis gibbosus*.

The bio-control program was conceived in 1989. In 1991 a Memorandum of Agreement between the Division and the Commission was established. A \$2,000.00 budget was set up for the first year as seed money for the program. An annual budget of \$10,000.00 was established. By the summer of 1991 there was a large enough population of *Gambusia* to supply fish to at least one county. In the summer of 1992 eight counties received over 45,000 fish. The end of the 1993 Fiscal year had a total of 66,500 *Gambusia* being stocked in eight counties. In Fiscal year 2003 the State Mosquito Control Commission supplied 328,999 fish to 13 counties. About 87,500 of the fish stocked in 2003 were species other than *Gambusia*. The highest number of fish stocked in a Fiscal year was 465,559 fish in Fiscal year 2002. That year, the fish were supplied to 13 counties in New Jersey and one in New York. About 85,000 of these fish were other species than *Gambusia*.

The Department of Environmental Protection's Division of Fish and Wildlife has developed strict guidelines and protocols for the use and distribution of mosquito-eating fish. To acquire fish, the local mosquito control agencies must contact the Office of Mosquito Control Coordination with potential stocking sites. The sites are then inspected by state biologists from the Division of Fish and Wildlife's Bureau of Freshwater Fisheries or the Office of Mosquito Control Coordination. Stocking sites include areas such as woodland pools, stormwater management facilities, ditches, abandoned swimming pools, ornamental ponds, sewage lagoons and waste water facilities. Upon approval the hatchery is notified and a schedule to deliver fish is established between the hatchery and the county mosquito control agency.

When used correctly, fish as a bio-control agent are a valuable part of an Integrated Pest Management program. In some areas fish can provide an efficient, long-term, cost-effective, environmentally safe alternative to pesticides.

For more information or to become involved with the bio-control (mosquitofish) program contact the Office of Mosquito Control Coordination. Additional information can be found at the Department of Environmental Protection's website at <http://www.nj.gov/dep/mosquito/>

**Highlights from the Guidelines for using the State Mosquito Control Commission's Bio-control program:**

- All sites are to be inspected by staff of the Office of Mosquito Control Coordination prior to fish stocking.
- All requests for fish need to be submitted to the Office of Mosquito Control Coordination. Do not contact hatchery personnel directly with fish requests.
- If the hatchery does not have the species of fish a county requests, counties may not obtain fish from another county without first contacting the Office of Mosquito Control Coordination. (Any county that would like to stock fish other than those provided by the State Mosquito Control Commission will be responsible for obtaining a fish stocking permit from the Division of Fish and Wildlife's Bureau of Freshwater Fisheries).
- After the county has obtained site approval, the Office of Mosquito Control Coordination will arrange with the hatchery for the county to pick up fish.
- The county will use one of the State Mosquito Control Commissions transport tanks to transport the fish back to the county.
- *Gambusia* can only be stocked in areas from which they can not escape and mix with the native fish population.

Please contact the Office of Mosquito Control Coordination for guidance and availability of all species.

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## JAMIE SCOTT

Jamesina Scott completed her Ph.D. research on *Ochlerotatus japonicus* this past Spring and defended her thesis at Rutgers University on July 29, 2003. She preceded her thesis defense with a seminar on the research she has been conducting since her arrival at Rutgers in 1997. Jamie's research with *Oc. japonicus* included biological studies on the diel rhythm of oviposition behavior, developmental rates for each of the life stages, a PCR technique for the identification of blood meals, identification of blood meal hosts from wild caught specimens and virus isolation rates in nature. Her thesis committee included: Dr. George Hamilton, Dr. Frank Carle, Dr. James Applegate with Dr. Wayne Crans as Chair. After successfully defending her thesis research, Jamie left New Jersey for a position as Vector Ecologist at the Placer Co. Mosquito Abatement District in California. Jamie is a California native and came to Rutgers with the hope that she could get the training to eventually assume a position within the California system. W. Crans

Jamie extends her greetings to all NJMCA members and had the following update to share:

*Tom & I are really enjoying being back home in California. We are renting a small house in the Sierra foothills, just below the snowline. It's a wonderful place to home to each day, and we have a wide variety of birds and wildlife that visit our yard.*

*I love my new job as Vector Ecologist at the Placer Mosquito Abatement District. This is a relatively new district, and we have been in operation for almost two years. Presently we provide services to western Placer County, an area of about 650 square miles with about 210,000 residents. This is largely an agricultural county and annually produces over \$58 million in agricultural products, including rice, cattle, nursery plants, and poultry. But Placer County also has the most rapidly growing urban/suburban population in the state with an average annual growth rate of 12.5%.*

*Two of our largest residential developments are Dell Webb Sun City retirement communities in which the minimum age of residents is 55. So as you might imagine, the arrival of West Nile in CA has increased the local interest in mosquito control. Placer County is in northern California, and roughly follows I-80 from the eastern edge of Sacramento northeast to Lake Tahoe, and includes*

part of the Sacramento Valley, Sierra foothills, and the Sierra Nevada mountains. With all of that habitat diversity, we also have a lot of mosquito diversity. Our major mosquito sources are 20,000 acres of rice (*Anopheles freeborni* and *Culex tarsalis*), several thousand acres of irrigated pastures (floodwater *Aedes* and *Ochlerotatus*), a large lumber mill (*Cx. pipiens*, *Cx. quinquefasciatus*, *Cx. tarsalis*, *Cx. stigmatosoma*), and treeholes and snowpools mosquitoes in the spring. We also have the usual assortment of backyard and catch basin mosquitoes. We have nine full-time employees (four technicians, a field supervisor, mapping/business manager, vector ecologist, district manager, secretary/ receptionist) and hire a few summer seasonals. Presently we are temporarily headquartered in a couple of modular buildings in Lincoln, CA but we will start construction on our new, permanent facility next year. I enjoy a lot of variety in my duties – I am developing our surveillance programs, setting up continuing education programs for our technicians, identifying mosquitoes and other insects, providing educational programs about mosquitoes and West Nile virus to our local government and community groups, and working with the local municipalities to resolve some of our major mosquito production sites. In my spare time, I'm exploring the county and learning our mosquito habitats and getting to know our residents. I hope that you all had a wonderful holiday season, and look forward to seeing many of you at AMCA in Savannah this February, and at the SOVE meeting in Boston in September 2004.

--Jamie

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## PEOPLE and PLACES

*Joseph Pezzillo* : As of August 27, 2003 Joe has filled the position of Biologist at Passaic County Department of Health - Mosquito Control. Education: Joe has a B.S. in Environmental Science January 2003 from William Paterson University Wayne, NJ. Experience: Internship New Jersey Department of Environmental Protection-Office of Pollution Prevention and Permit Coordination; Small Business Environmental Assistance Program. Contact Info: Joe Pezzillo Passaic County Mosquito Control 1310 Route 23 North Wayne, NJ 07470 (973) 305-5754 [JoeP@passaiccountynj.org](mailto:JoeP@passaiccountynj.org)

*Glenn A. Levinson*: Glenn is currently the Program Coordinator at Hudson County Mosquito and Vector Control. Education: Glenn has a Bachelor of Science degree in Zoology and a Master of Science degree in Entomology from the University of Illinois at Champaign. Experience: Software Engineer for database inventory software tracking systems. Levinson Consulting – Wauconda, IL Consultant - human resources, Northwest Mosquito Abatement District – Wheeling, IL Director Glenn designed and implemented an Integrated Pest Management (IPM) program that consisted of arboviral surveillance and vector control operations, nuisance mosquito abatement, water management, and public education. Glenn designed and implemented a computer database system and network to monitor, analyze, and coordinate time-critical field operations for three stations of operations, Macon Mosquito Abatement District – Decatur, IL - Assistant Superintendent. Contact Info: Glenn A Levinson Program Coordinator Mosquito and Vector Control Hudson Regional Health Commission 595 County Ave., Bldg 1 Secaucus, NJ 07094 Phone: 201-223-1133

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## NJMCA Membership Application

Name: \_\_\_\_\_

Title: (Dr., Director, Commissioner) \_\_\_\_\_

**Work  
Address:** \_\_\_\_\_  
\_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_  
**Work Phone:** (\_\_\_\_\_) \_\_\_\_\_

**Work E-Mail:** \_\_\_\_\_  
**Work Fax:**(\_\_\_\_\_) \_\_\_\_\_

**Home Address:**  
\_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_  
**Home Phone:**(\_\_\_\_\_) \_\_\_\_\_

**Home EMail:** \_\_\_\_\_

Dues Payment for the Year 2005 Thirty (\$30.00) per Member per Year

Total Number of Memberships \_\_\_\_\_

@ \$30.00 ea. - Total Amount of Invoice \_\_\_\_\_

Make Checks or Voucher Payable to: **New Jersey Mosquito Control  
Association, Inc.**

and send to:

***New Jersey Mosquito Control Association, Inc.  
c/o Camden County Mosquito Commission  
2311 Egg Harbor Road  
Lindenwold, NJ 08021***