

NEW JERSEY MOSQUITO CONTROL ASSOCIATION, INC. NEWSLETTER

VOL. XI NUMBER 3 November, 1999

West Nile Virus-1999

The involvement of New York City with West Nile Virus had its impacts on New Jersey's mosquito control programs across the board; counties, state government and the university were all impacted and each responded in many ways.

With the belief that they were responding to a St. Louis Encephalitis outbreak, the City of New York found itself with depleted stocks of insecticide and short on the resources necessary to apply them. A critical period came during the Labor Day weekend when, the NJ and NY Offices of Emergency Management attempted to contact the staff of the NJ Office of Mosquito Control Coordination (the administrative component of the State Mosquito Control Commission). When reached at his home, Office Administrator Kenneth Bruder almost immediately coordinated the transfer of state-owned insecticide to the City of New York for their adulticiding operation. Also about this time, the Bergen County Division of Mosquito Control lent personnel and equipment to the City for ground adulticiding operations. The Monmouth County Mosquito Commission offered to NYC the use of their county-owned Bell Jet Ranger helicopter for larval control applications. While not accepted, the offer of this aircraft exemplified the spirit of the New Jersey mosquito control community. Thus began New Jersey's involvement with an encephalitis outbreak that never occurred in our state, but certainly affected us due to our proximity to NYC.

The Mosquito Research and Control group at Rutgers University (a collection of faculty and students under the direction of Wayne Crans) initiated an ambitious surveillance effort in order to determine the status of the resident mosquito population, the distribution of the virus and the potential for transmission to the animal and human populations in New Jersey. This effort included the immediate placement of sentinel chickens for blood testing, the collection and pooling of adult mosquitoes for eventual virus testing and the planned surveillance of wild bird populations to determine their role in the maintenance and transmission of the virus.

The NJ Dep't. of Health and Senior Services initiated a hospital surveillance program which involved communication throughout the state in order to notify hospital staff of the virus and the reporting protocol were human cases to reveal symptomology. The department's aggressive public relations effort was put forward in two directions; both announcements to the general public of what was occurring in the state and the overwhelming job of responding to the almost never-ending incoming inquiries via telephone, e-mail and in-person.

As a routine part of the state's on-going Vector Surveillance Program (which monitors mosquito populations for their potential to vector Eastern Equine Encephalitis), the Department of Agriculture tests mosquito pools for the presence of the virus. Involved with this work is the Ass't Director of the Division of Animal Health, Robert Eisner. As samples arrived in Trenton, the labs furiously tested for the presence of St. Louis Encephalitis. Once a West Nile-Like virus was suspected, Dr. Eisner aggressively pursued the information and materials necessary to test for it. An ex-officio member of the State Mosquito Control Commission, Bob's role as liaison with agencies both in New Jersey and with other states was invaluable.

An emergency meeting of the NJ State Mosquito Control Commission was held on September 15, the purpose of which was to review the (then thought to be) St. Louis Encephalitis outbreak. At that meeting representatives from the state departments of Agriculture, Health and Senior Services, Environmental Protection and from Rutgers University all participated. Additionally, staff from county mosquito control agencies from north Jersey to south Jersey had staff there. All of these agencies discussed the current situation and how each would work with the others to coordinate an effort against the mosquito threat, should an outbreak occur in NJ. One result of the meeting was the initiation of a daily reporting process to the Office of Mosquito Control Coordination, from county agencies, which documented their surveillance and control efforts. This information was critical to the state government with regards to a coordinated surveillance and control response, especially when considering adulticiding activities.

By the third week in September, we learned that the encephalitis of concern might not be St. Louis at all, but rather a West Nile-Like virus never before isolated in this hemisphere. Such an announcement stimulated, galvanized and encouraged all New Jersey mosquito control agencies to work together in order to respond to whatever was going on. Lines of communication between states were improved as well, and significant information was shared with local control programs.

As information about mosquito collections, bird samples and blood testing was relayed back to the NJ county mosquito control agencies, they all significantly stepped up their surveillance and, as a result of documented mosquito populations, their control efforts. These were mainly larval control formulation applications, but some adulticiding was performed as well. Longer hours, week-ends, holidays and vacations stood not in the way of these employees as they completed their tasks in order to ensure that human involvement with the virus did not occur in the Garden State.

Most county mosquito control agencies kept up their vigilant attack long into late Fall, even after first frost. Some considered surveillance and control strategies not usually considered routine in their programs. All participated in the agonizing task of responding to the seemingly constant requests for interviews by the media and personal attention to the general public.

The evaluation of the collected data from this outbreak and New Jersey's response is still being evaluated. Meetings with public officials continue, and will continue well

into the New Year. Mosquito control and research plans and budgets are being re-worked in order to consider how to respond to this virus should it reappear next season. Our state is most fortunate to have, in place, a structure and policy of mosquito control and a network of agencies and laboratories assigned to do the work. By the start of the mosquito control season of the year 2000, improved surveillance and an even better control response should be in place in order to respond to the West Nile Virus should it reappear.

Robert Kent, NJ Office of Mosquito Control Coordination

FAQ's on Mosquitoes

Can mosquitoes carry disease?

Any insect that feeds on blood has the potential of transmitting disease organisms from human to human. Mosquitoes are highly developed blood-sucking insects and are the most formidable transmitters of disease in the animal kingdom. Mosquito-borne diseases are caused by human parasites that have a stage in their life cycle that enters the blood stream. The female mosquito picks up the blood stage of the parasite when she imbibes blood to develop her eggs. The parasites generally use the mosquito to complete a portion of their own life cycle and either multiply, change in form inside the mosquito or do both. After the mosquito lays her eggs, she seeks a second blood meal and transmits the fully developed parasites to the next unwitting host. Malaria is a parasitic protozoan that infects the blood cells of humans and is transmitted from one human to the next by *Anopheles* mosquitoes. Encephalitis is a virus of the central nervous system that is passed from infected birds to humans by mosquitoes that accept birds as blood meal hosts in addition to humans. Yellow fever is a virus infection of monkeys that can either be transmitted from monkey to human or from human to human in tropical areas of the world. Dog heartworm is a large filarial worm that lives in the heart of dogs but produces a blood stage small enough to develop in a mosquito. The dog heartworm parasite does not develop properly in humans and is not regarded as a human health problem. A closely related parasite, however, produces human elephantiasis in some tropical areas of the world, a debilitating mosquito-borne affliction that results in grossly swollen arms legs and genitals.

Dr. Wayne J. Crans, MR&C, Rutgers University

5 Questions With

Chet Stachecki, Jr.

- 1) **Do you remember what you did your first day of work in mosquito control?** "I reported to the central office in Milford. Oh man, I was writing like gangbusters, taking notes while Charlie (Murphy, Superintendent of the Mosquito Control Division at the time) gave me a crash course on budgeting, purchase orders, vouchers, and where my office would be. That afternoon, I went to my office for the first time. It was in the basement of a building - about 6' x 6' with a dirt floor."
- 2) **Is there anyone you would consider to be your mentor?** "That's a toss up. Probably, I'd have to say both Bob Lake and Frank Murphey from the University of Delaware. They took me into the field to learn the mosquito species, habitats, associated insects, you name it. Bob was a real ecologist."
- 3) **What do you think is the biggest difference between mosquito control now and when you got started?** " More regulations! You didn't need permits to do marsh work; you could spray a refuge with just a letter to the refuge manager. There also used to be a greater acceptance, by the public, of adulticiding in those days."
- 4) **What are you most looking forward to in the new year?** " Doing some traveling. Just taking a break, getting reoriented - and puttzing around on various projects around the house. Maybe play around with my azaleas some."
- 5) **Any parting words?** "Mosquito control people - organizations, commissions, agencies - have evolved professionally. That will help us in the future, in the new millennium, to deal with problems as they arise. Stick together and work - there's strength in numbers."

Chet is retiring on Jan 14th 2000. His 1st day was June 4, 1962.

PEOPLE IN THE NEWS

Camden County: Edward Jefferson retired after twenty six years of service to the Camden County Mosquito Extermination Commission. Mr. Jefferson was an Inspector/Heavy Equipment Operator.

Tim Forest, the Commission's Senior Inspector, was named Camden County's Employee of the Month recently.

Cape May County: Peter Bosak was hired as the Cape May County Mosquito Commission's Entomologist in July.

Ocean County: Mike Romanowski and his wife Doreen had their second child Andrew, on June 23rd, a baby brother for Kristen.

Mercer County: Sue VanDerhoff of Mercer County Mosquito Control has a daughter Susan that got married on August 14th

LMCA Recognizes Wayne Crans as their 1999 Chuck Alexander Operational Award Recipient

The Louisiana Mosquito Control Association (LMCA) presented the Chuck Alexander Operational Award to Dr. Wayne J. Crans at their annual meeting in Baton Rouge this past November. The Alexander award was established in 1998 to bring a nationally recognized keynote speaker to LMCA to address the membership on a topic of interest to the association.

Louisiana experienced a severe outbreak of eastern equine encephalitis in 1999 and asked Dr. Crans to address the association on some aspect of Rutgers ongoing work with this mosquito-borne disease. Dr. Crans's talk was entitled "Mosquitoes, Birds and EEE: Mechanisms that Regulate the Cycle in Nature". Dr. Duane Gubler was LMCA's first Alexander Operational Award recipient in 1998.

Bill Zawicki "Officially" Retires

Family, friends and business associates gathered at the Belmar Fishing Club for a surprise party—and it really was a surprise—organized by his family in honor of Bill Zawicki's retirement. Folks from New Jersey, New York, Pennsylvania, Delaware, Maryland and—winning the prize for longest distance—Illinois came to honor Bill. Wally Terrill served as an able master of ceremonies. Joe Fitzpatrick spoke and also presented Bill with a pair of size 17 orange tennis shoes—a truly touching moment. Bob Kent spoke for Bill's northeastern friends, Marty Chomsky spoke for the New Jersey folks and senior citizen Henry Rupp chimed in with a few remarks and a recollection of the past.

It was a friendly affair with the weather cooperating and giving all a beautiful day at the shore, and even the youngest of Bill's grandchildren, a babe in arms, was well behaved. Everybody enjoyed themselves, and even though the Fishing Club was booked for 5:00 pm, people stayed on chatting and reminiscing. It was as though, if recognizing Bill's retirement, we still didn't want to let go. Thanks to all involved in carrying through such a nice affair. And, thanks to you too, Bill.

Henry Rupp

NJMCA Announcements

Henry Rupp Nominated as Honorary Member of NJMCA

As required by the bylaws under Article 3: Membership; an individual may be nominated for Honorary Member of the Association if the following are met:

- 1) They are recommended by three (3) or more Regular Members and
- 2) This recommendation is done in writing to all Regular Members at least ten (10) days prior to the annual meeting of the Association.

The following is submitted to you as fulfillment of these criteria.

Executive Committee, New Jersey Mosquito Control Association

Dear Committee Members:

We, the undersigned, wish to nominate Henry Rupp as an Honorary Member of the NJMCA.. We do so in recognition of his contributions to the NJMCA and the mosquito control profession in New Jersey. Attached is a summary of his accomplishments. Of particular significance are his efforts in training sessions for recertification credit and editing of the NJMCA Proceedings.

This letter of recommendation was signed by: Donald J. Sutherland, Roderic Schmidt, Judy Hansen, Martin S. Chomsky

A copy of the summary of Henry R. Rupp's accomplishments can be acquired by contacting Rod Schmidt, Middlesex County MEC at 732-549-0665 or Bill Reinert, Newsletter chair. at 609-645-5948

AMCA 2000 MEETING ANNOUNCEMENTS

"NOTICE"

Anyone interested in presenting papers for publication in the New Jersey Mosquito Control Association's Proceedings, please submit titles to the chair of the Program Committee, Thomas Candeletti at Ocean County Mosquito Commission, P.O. Box 327, Barnegat, NJ 08005. Phone: 609-698-8271

Because of the joint meeting this year with A.M.C.A. there will not be time for presentations, however, we still plan on publishing any historical or routine papers to maintain continuity along with papers from the New Jersey session. Also, if there are papers that would contain critical dated information which could not wait for presentation at the year 2000 meeting, please contact me.

Thomas Candeletti, Chair-NJMCA Program Committee

"ATTENTION"

Calling all you pack rats and just plain history buffs. The NJMCA Archives Committee is looking for the old stuff, the stuff that is stored away in that dark corner of your building, that is of archival (don't read junk) interest.

We don't even know where to begin because none of us are that old. The obvious things would be old single and double handled sod shovels, sod saws, hooks, old photos, etc.

Take that stuff out and on the long snowed in days we will be getting this winter, clean it up. Paint it if it doesn't move, oil it if it does.

The committee has been given a lot of space at Bally's to display our stuff so don't let size worry you. We will help you get it into the room.

New Jersey mosquito control has a tremendously rich history behind it. Help us show the rest of the world what good old mosquito control was like.

Members of the Archive Committee that you can contact with questions and items for display are: Rod Schmidt (732-549-0665), Al Juszcyk (973-305-5754), Kris McMorland (732-549-0665), Mike Hajek (732-297-2197), Judy Hansen (609-465-9038),

Rod Schmidt, Chair- NJMCA Archive Committee

New Jersey Mosquito Control Association, Inc. Application for Membership

The undersigned hereby sponsor the named applicant for regular membership to the NJMCA:

Name _____

Agency _____

Phone _____ Fax _____

E-Mail _____

Address _____

Sponsor _____

Sponsor _____

Please send this application and dues for an amount of \$30.00 to the Secretary. Thank you.

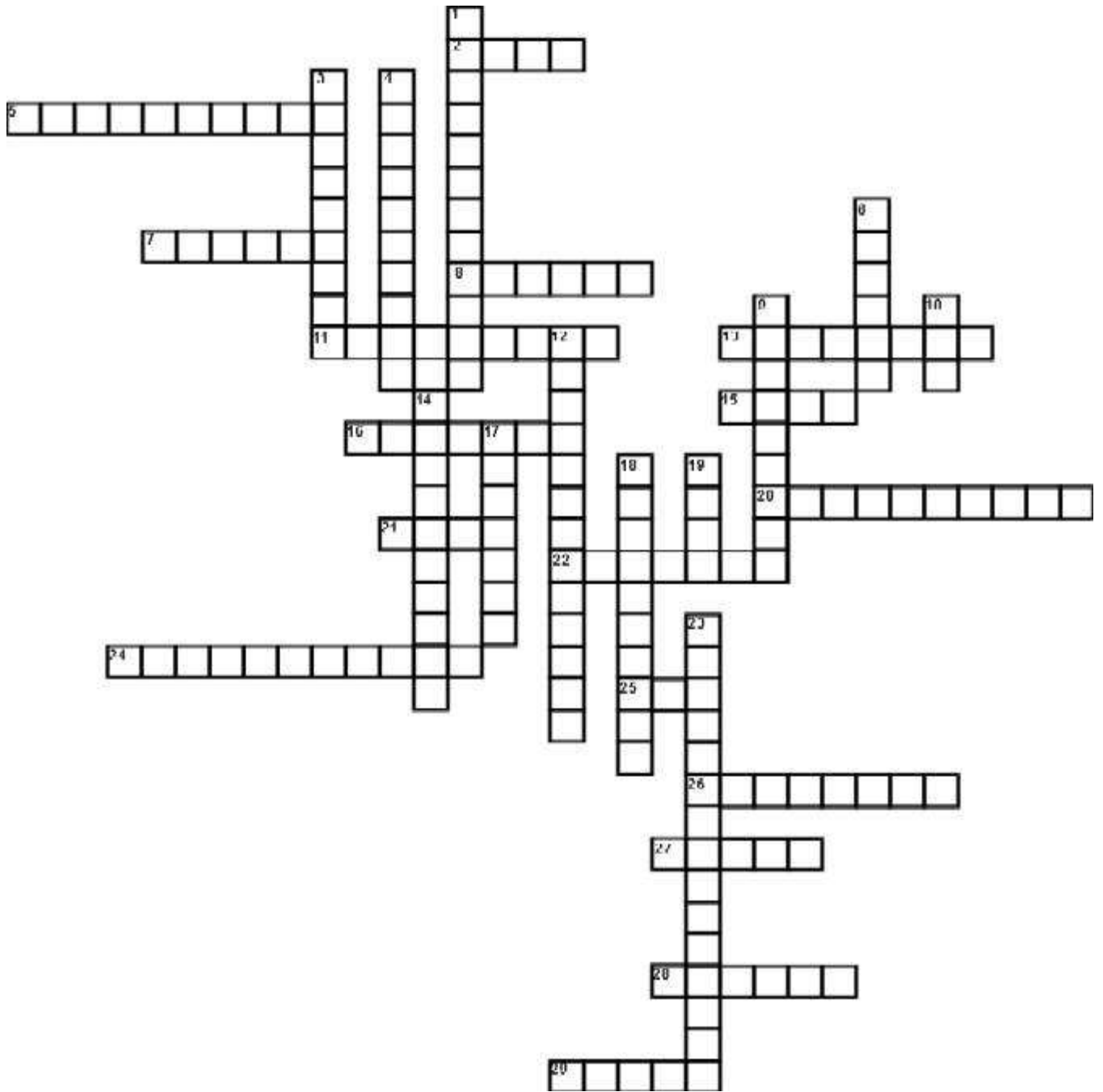
Secretary, NJMCA, c/o NJ Agricultural Experiment Station, Headlee Research Laboratories, 180 Jones Avenue, New Brunswick, NJ 08901-8536

[Culex pipiens Linnaeus](#)

By Dr. Wayne J. Crans, Rutgers University

[HELP WANTED](#)

Mosquito Crossword



Across	Down
2. mosquito mgmt. tech.	1. common saltmarsh mosquito
5. used to kill adult mosquitoes	3. the "new" flavivirus
7. Buddy Ehrenberg's first name	4. 69th NJMCA president
8. a body segment	6. area between mosquito's eyes
11. pigeon trap	9. new species to New Jersey

13. the "flightless" wings	10. reg. agency
15. dirofilaria victims	12. marsh management tool
16. former Miss Smith	14. mosquito genus
20. terminal know of halteres	17. the mosquitoes order
21. group of mosquito eggs	18. malaria genus
22. larval growth stages	19. the "fifth" instar
24. the tree-hole mosquito	23. mosquito predator
25. tot. mosquito cont.	
26. Bill Reinert's alma mater	Answers are here
27. Michael Romanowski's middle name.	
28. the basic tool	
29. second segment of mosquitoes antenna	