

NEW JERSEY MOSQUITO CONTROL ASSOCIATION, INC. NEWSLETTER

VOL. X NUMBER 2 October, 1998

1998 SUMMER WRAP-UP

The extremely dry summer of 1998 proved to be a great ally to the NJ mosquito control community. Many counties reported almost drought like conditions during the summer after an exceptionally wet spring, which drastically reduced mosquito populations and service requests alike.

County reports are as follows:

- **Bergen County:** *Ae. triseriatus* and *Ae. canadensis* were the most abundant species found this year. Populations were low all summer with a spike in late June to early July. Water management crews have been working on stream clearance projects.
- **Ocean County:** Adult population problems were at a minimum for 1998. *Ae. canadensis* and *Ae. grossbecki* numbers were high in the spring while *Ae. sollicitans* numbers were below normal, but building towards the end of summer. An interesting anomaly was the high numbers of *Cs. inornata* collected in one light trap, up to 400/night. Field tests of Altosid XRG were inconclusive due to a high flood tide and invasion of killfish at the test location.
- **Atlantic County:** Exceptionally high spring flooding produced high spring adult populations of *Ae. sticticus* and the highest number of complaints on record. Dry conditions prevailed during the mid to late summer months. Altosid concentrate produced good control on the salt marsh requiring no adulticide applications for the areas treated. The water management program is digging more cubic feet than ever with two rotary ditches.
- **Warren County:** High spring species populations accompanied the normal amount of spring flooding. 21,475 fish, of mixed species, were stocked with overall excellent control results. Altosid XR briquettes were used successfully for season long control.
- **Burlington County:** Above average rainfall in the spring resulted in high *Ae. vexans* population and a large number of complaints. Very few *Ae. sollicitans* and members of the *Psorophora* genus were found this year due to the very dry summer.
- **Salem County:** An abundance of *Ae. cantator* and *Ae. canadensis* created a problem during the spring. *An. quadrimaculatus* and *An. punctipennis* were found in higher numbers despite the drought like conditions that reduced population numbers of most species.
- **Camden County:** Heavy spring rains created localized problems. Drought conditions prevailed during the summer months hindering any large adult

- populations from manifesting. *Ae. trivittatus* caused regional problems and *Ur. sapphirina* were unusually abundant. 4,000 fish were stocked with initial success but some locations were effected by the lack of rain.
- **Morris County:** May through July was exceptionally bad with very high light trap collections, landing counts and excessive number of complaints with over 2,000 calls in under 3 weeks. These were a result of almost double the amount of rain during the early season, with a 5 inch rain event on June 12 and 13. Problems were encountered with the helicopter application system. A 1968 Caterpillar 933 was replaced with a new Caterpillar 939 bucket loader under capital budget.
 - **Middlesex County:** Springtime populations of *Ae. canadensis*, *Ae. grossbecki*, and *Ae. cantator* were found in ample numbers. Crews were fast to service areas and complaints were below last years numbers with a little help from the lack of any substantial rainfall. Localized populations of *Ps. ferox*, *Ae. vexans*, and *Ae. trivittatus* caused some irritations. A cooperative trial of Anvil 10 + 10, with Clarke outdoor spraying was performed this summer. 1,200 fish were stocked with good results. A John Deere 190E was purchased in the spring.
 - **Cape May County:** *Ae. canadensis* populations were high during the spring along with an abnormal amount of *Ae. stimulans*. *Cq. perturbans* created a nuisance during the mid-summer months. Adulticide trials with Anvil and Aqua Reslin produced overall good results. Crews are working on water management projects at Fishing Creek and Green Creek.
 - **Union County:** Light trap counts were high in spring and dropped off for the summer. A surge in the *Ae. sollicitan* population was experienced during the week of Sept. 21. Employees were treated to a new fully equipped lab during the spring of 1998.
 - **Passaic County:** Mosquito control was hampered with the loss of 50% of field personnel. Heavy populations resulted from early season flooding. It is noted that there was a high presence of *Ps. ciliata* in the city of Passaic.
 - **Sussex County:** High populations of *Ae. vexans*, *Ae. trivittatus*, *Ae. stimulans*, *Ae. sticticus*, and *Ae. canadensis* in the early season resulted in many complaints. Much success was found with the use of malathion and #2fuel oil in adulticiding. Another noteworthy bit of information is the addition of a full time staff member.
 - **Monmouth County:** High populations of mosquitoes and a record number of complaints were recorded this spring. Populations of *Ae. sollicitans* were low during the summer. *Ae. albopictus* was collected at its original site in Keyport and at an additional site in Oceanport. 26,000 fish were stocked at 120 locations throughout the county. Water management crews are working at restoring wetlands at the Belford landfill.
 - **Gloucester County:** Early spring flooding brought about an abundant amount of *Ae. canadensis*, *Ae. grossbecki*, and *Ae. cantator*. With drought like conditions, summertime species populations were lower than normal. Crews will be beginning to clean ditches, swales, and culvert pipes with hand tools. 3 new trucks for the larviciding program and a state owned buffalo turbine machine have been acquired in 1998.
 - **Cumberland County:** *Ae. sticticus* presented a problem during the springtime. With a marsh restoration project from PSE&G and good results from Altosid SR-

20, there was a noticeable lack of *Ae. sollicitans* this summer. 3,000 fish were stocked at over 22 sites. They have received a Case 550G crawler and a Hyundai 30ft reach excavator. Noted is that the staff moved into a newly constructed facility this spring.

- **Mercer County:** Spring started out very busy with numerous complaints and high *Ae. vexan* populations. These high levels dropped after June with the hot dry weather. 15,000 fish were stocked with good results. 2 new trucks and 2 new backpack misters were purchased this year.
- **Hudson County:** Lack of rain in the spring and summer saw reduced numbers of *Ae. sollicitans*, *Cx. salinarius*, and *Ae. vexans*. There was an increase in the budget this year for the purchase of pesticides and helicopter application flights.

Kristian McMorland, Middlesex County Mosquito Commission

EEE in New Jersey(As of October 16)

Equine					Avian			
Date of Onset	County	Breed	Status		Date of Onset	County	Breed	Status
Aug. 1	Burlington	Shetland Pony	Confirmed		Sept. 1	Ocean	Pheasant	Confirmed
Aug. 2	Burlington	Thoroughbred	Confirmed		Sept. 7	Atlantic	Quail	Serology +
Aug. 14	Ocean	Standardbred	Presumptive		Sept. 9	Cumberland	Emu	Confirmed
Aug. 30	Burlington	Thoroughbred	Confirmed		Sept. 12	Warren	Exotic Temmick Pheasant	Confirmed
Aug. 31	Ocean	Quarterhorse	Confirmed		Sept. 29	Middlesex	Racing Pigeon	Confirmed
Sept. 11	Ocean	Thoroughbred	Confirmed					
Sept. 21	Monmouth	Thoroughbred	Confirmed					
Sept. 23	Atlantic	Standardbred	Confirmed					

Sept. 28	Atlantic	Standardbred	Confirmed					
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Source: Dr. Wayne J. Crans, Rutgers University

***Ae. albopictus* in Gloucester County, NJ**

On September 22, 1998, Mr. John Sweet and Mr. Wayne Wurtz, of Gloucester County Mosquito Control, collected and identified a number of adult female *Aedes albopictus* during a routine request for service in Mantua. On September 23, the mosquitoes were confirmed as *Ae. albopictus* by Wayne Crans and Linda McCuiston at Rutgers. This was the first record of *Ae. albopictus* for Gloucester County, and marked the sixth New Jersey county in which this species has been detected. Other counties in which *Ae. albopictus* has been collected in New Jersey are Monmouth (1995), Salem (1995), Cumberland (1995), Burlington (1996), and Atlantic (1996).

The residence at which the initial discovery was made lay only a few hundred yards from a salvage and tire recycling yard which supported a large population of *Ae. albopictus*. During the following weeks, systematic sampling and inspections of residences revealed that *Ae. albopictus* occupied an area of at least 1.5 miles by 0.75 miles in Mantua Township. Over 35 sites have been inspected in this area, and 21 have had *Ae. albopictus* larvae, pupae, and/ or adults present. Many of these sites are residential – single-family dwellings, townhomes, and mobile homes, which raises concern about this species' ability to act as a bridge vector for eastern equine encephalitis virus.

The larvae have been found in a variety of artificial containers, including automobile and large truck tires, trash cans, depressions in tarps, flowerpots, a pool float, a bird bath, a rain barrel, and a variety of cans and buckets. A discarded washing machine in a residential backyard was also found to contain *Ae. albopictus* larvae, pupae, and adults. The washer was approximately half-filled with water and the lid was only slightly ajar, but over 50 adult *Ae. albopictus*, and a large number of pupae and fourth instar larvae were discovered inside the machine.

Plastic recycling buckets were frequently found to contain larvae and resting adult *Ae. albopictus*. Although many of these containers had holes drilled to prevent the accumulation of rainwater, the holes were often placed higher than the lowest point in the bucket, thus allowing small amounts of water to remain. Less frequently, the drainage holes became blocked by leaves or other accumulated debris and collected enough water to support mosquito larvae.

One additional *Ae. albopictus* larva was discovered in a salvage yard in the adjacent township of Deptford, approximately 7 miles from the nearest known limit of the Mantua

infestation. This larva was discovered in a tire along with 3 *Ae. atropalpus* and one *Toxorhynchites rutilus* larva.

This fall, sampling will continue for *Ae. albopictus* in Gloucester County until no adults or larvae are found. Sampling and monitoring of this population will continue in the spring.

John Sweet, Gloucester County Mosquito Control

Jamesina J. Scott, Rutgers University, MR&C

And From Suffolk County, New York

The 1998 mosquito season in Suffolk County was really two seasons in one. During the April-June, conditions reflected the wet winter and spring. Rainfall for the year at that point was over 18 inches above normal. 5.5 inches in June alone. The result was excessive numbers of freshwater species, with *Culex restuans*/*pipiens* leading in terms of numbers and *Aedes vexans* causing the greatest nuisance problems. Larval control crews worked overtime for three weeks in June. Complaint loads were high for June, and an aerial adulticide was necessary in Mastic/Shirley in early July to deal with persistent infestations of *Aedes vexans* and *Aedes cantator*. This application of Fyfanon was highly successful, although there was some adverse publicity from anti-pesticide activists.

After June, the weather suddenly became much drier. July rainfall was 2.4 inches below normal, and the dry weather persisted through September. This second half of the season was relatively quiet. Freshwater breeding sites dried down and aerial larviciding of the salt marshes with Altosid was highly effective, as usual. *Aedes taeniorhynchus* outnumbered *Aedes sollicitans* at one trap site, a very unusual situation on Long Island. Aerial adulticide for salt marsh mosquitoes in Mastic/Shirley was not necessary in August, as is usually the case. There were high populations (up to 38,000 per trap night, baited CDC) of *Aedes sollicitans* in the Fire Island Wilderness, but wind patterns largely prevented dispersal into populated areas in August.

This luck with the weather changed the first week in September, and aerial adulticide with Fyfanon was required on 5,000 acres over Labor Day weekend. These aerial applications were conducted primarily to control *Aedes sollicitans* that dispersed from the Wilderness. Efforts to get permission to larvicide in the Wilderness are continuing, because this would greatly reduce the need for adulticiding. The dispersal of mosquitoes from the Fire Island Wilderness remains the single greatest problem faced by the Division of Vector Control.

There were no isolations of EEE in Suffolk County this year. Aerial applications of Altosid pellets were conducted in 4 *Culiseta melanura* sites. No applications were conducted in the largest area, Manorville, due to environmental restrictions on the main

breeding sites. The Fall of 1997 was extremely dry, and most of the usual *Culiseta melanura* breeding sites were dry going into the winter.

Applications of Vectolex were conducted this year, and results were promising enough that we plan to use this as our primary material in permanent water sites in 1999. Use of Altosid XRG and Vectobac pellets is also planned. There were continued reports of treatment failures with ground ULV applications of Scourge. We are considering using Fyfanon by ground ULV in certain problem areas in 1999. Aqua-reslin is also being considered.

Water management is now proceeding at a high level, with 2 rotary ditchers in operation for ditch maintenance and several OMWM projects planned. Specifications for another amphibious rotary ditcher and an amphibious excavator are being prepared. Capital funds are in place for this equipment, with Fall of 1999 as a delivery target.

The Vector Control building is now wired for a LAN, with a WAN connection to the rest of the County and the Internet is to be installed in November. A Web site is planned for early 1999. In 1999, all complaint information will be taken directly into a database over the LAN, and all pesticide data will be entered weekly. Reports to the State on pesticide usage required under our permits and the State reporting law are being finalized, using Mosquito Control Management System software.

To summarize, a wet early season created a longer busy season than usual, but more normal conditions returned for the second half of the summer. Overall, *Culex* spp. and *Aedes vexans* were high, while salt marsh mosquitoes were at normal levels. Virus activity was too low to detect. The Division of Vector Control is continuing to modernize all aspects of the program.

Dominick V. Ninivaggi, Superintendent, Suffolk County DPW, Division of Vector Control

AMCA Update

The AMCA will hold a Public Health Pesticide Workshop in Washington, DC from May 25 - May 27, 1999. The event will be coordinated by Dr. Warren Stickle, our professional expert for legislative advocacy and regulatory consultant. It is expected that over 200 mosquito control professionals from throughout the US will attend these meetings to be scheduled with our elected Representatives and key staff members of the Federal agencies that oversee our activities. Follow up material will be forthcoming.

All delegates and members who are planning to attend the AMCA Annual Meeting in St. Louis from 2/20/99-2/25/99 should register early. The AMCA charges an additional \$25. for all those who register after 1/29/99.

The Business Manager and others have come forward with a proposal to solidify AMCA in Lake Charles, LA. The AMCA according to this proposal will build or buy a building to be used as a headquarters for the organization. An ad hoc committee has been formed to review these options as well as the possibility of continuing to lease our current space. Bill Zawicki and I were appointed to this Committee. When AMCA originally moved to LA from CA, there was no rental fee. AMCA was housed in a facility owned by the Parish. None of the current BOD members with the possible exception of Lucas or Chuck was aware of this factor.

The response to the EPA Survey on Pesticide Usage was very poor. Only 14% of the Mosquito Districts responded. Unfortunately the Central Office is working with obsolete data. These data indicate that there are considerably more MAD's than actually exist. I am currently updating mosquito control agencies in our region and expect the number to be considerably fewer than those that were active in 1984, the last time the list of agencies was revised. A number of the NJ districts have not responded to the survey. Please respond now so that we can reach the 20% mark.

Martin S. Chomsky, MPH, North Atlantic Regional Director

1998 Proceedings of the NJMCA, Inc.

"The word is out... Yes, the 1998 Proceedings of the NJMCA, Inc. Annual Meeting held April 6 - 9, 1998 in Atlantic City, New Jersey will be available soon. Symposium topics which will be included in the Proceedings are: Developments in Mosquito Control Products, Mosquito Control Work In New England, Research In Progress: Reports By Graduate Students, Lyme Disease and Other Emerging Tick-Borne Maladies. Reports from state agencies, associations (state and national), etc. will also appear in the Proceedings. To place an order for the 1998 Proceedings at \$10.00 each, or if you have any questions, please contact Ms. Linda L. Dickson, NJMCA, Inc. Proceedings Distribution Manager, P.O. Box 388, Oxford, New Jersey 07863 or (908)453-3585 Fax: (908)453-2662 E-Mail: mosquito@nac.net.

PERSONNEL PROFILE

Aaron H. Rappaport

There are from time to time, members of our mosquito control community that have been involved for such a long time that the relative newcomer may know little of them. Such a person is Aaron H. Rappaport.

Born just two years prior to the organization of the NJMCA (you do the math!) Mr. Rappaport is still very active as Chairman of the State Mosquito Control Commission.

He first became involved in our work when appointed as a member of the Essex County Mosquito Extermination Commission in 1960. As a nineteen-year member of that commission, Aaron served two terms as president and was treasurer for fourteen years. In the latter role he oversaw a \$800,000 budget, which was quite a tidy sum in the sixties.

In 1976 Aaron was appointed to the State Mosquito Control Commission. In October of 1977, then Experiment Station Director Grant Walton nominated Aaron to be Chairman. Save one term when he was Vice-Chairman, he has served as the Chair since, including his re-election at the commissions recent October 1998 meeting.

Aaron first joined the New Jersey Mosquito Control Association in 1967. He served as a long-time member of the auditing committee and was a member of the executive committee as well. Mr. Rappaport served as the Associations President in 1986. He was the 1981 recipient of the Jessie B. Leslie Award and was also recognized by Rutgers University as the recipient of the Cook College Appreciation Award in 1988.

The retired owner of Rappaport Oil in East Orange, Aaron and his wife Anne, live in West Orange, New Jersey.

Robert Kent, NJ Office of Mosquito Control Coordination

FAQ's on Mosquitoes - Why do mosquitoes leave welts when they bite?

When a female mosquito pierces the skin with her mouthparts, she injects a small amount of saliva into the wound before drawing blood. The saliva makes penetration easier and prevents the blood from clotting in the narrow channel of her food canal. The welts that appear after the mosquito leaves is not a reaction to the wound but an allergic reaction to the saliva injected to prevent clotting. In most cases, the itching sensation and swelling subside within several hours. Some people are highly sensitive and symptoms persist for several days. Scratching the bites can result in infection if bacteria from the fingernails are introduced to the wounds.

Dr. Wayne J. Crans, Mosquito Research & Control, Rutgers University

MEMBERSHIP IN NEW JERSEY MOSQUITO CONTROL ASSOCIATION, Inc.

To apply for membership fill out the following application and forward it to: Membership Chairman, Office of Mosquito Control Coordination, PO Box 400, Trenton, NJ 08625. Make checks payable to "New Jersey Mosquito Control Association", membership period is from March to March.

Name: _____

Individual \$30.00/yr: _____ Sustaining \$300.00/yr: _____

Address: _____

Contribution to D.M. Scholarship: _____

Phone: Office:() _____ Home:() _____

Editors Note: In the last issue of the NJMCA, Inc. Newsletter I inadvertently omitted the author of the "Many Honored And Remembered At The 85th Annual Meeting" piece. This piece was submitted by Dr. Thomas Murray, Camden County Mosquito Control Commission, as the chairman of the NJMCA, Inc. Awards Committee. My apologies.

Can't You Spray For Ticks Too?

The mosquito control community has for some years had an interest in Lyme Disease, both as an occupational hazard and as a public health threat. With the steady increase in Lyme Disease cases in New Jersey came legislation allowing the county Boards of Chosen Freeholders to assign Lyme and other tick borne disease control work to mosquito control agencies. The Associated Executives of Mosquito Control Work in N.J. organized training sessions where experts taught the members about tick biology and control. The group also developed the following outline of elements for putting together an environmentally sound Lyme Disease control program. As with any Integrated Pest Management effort, identification of a target is required before the application of a pesticide. Education of the potential victim may be more economical than controlling the disease vector. Therefore, a county may not need to use all of these possible elements but the order of the items in the outline is important for an effective, efficient and safe program.

Outline of tick control procedures recommended for mosquito control agencies to perform Lyme Disease control work as allowed under N.J.S.A.26:2P-1 et seq. The sequence of the major headings is an important element of the recommendation.

Surveillance

- General Tick Survey
- Location of Lyme Cases (with County/State Health Dept.)
- Spirochete Testing

- Map the Trouble Spots identified by data in 3 steps above
 - Survey Select Locations to calculate life cycle & estimate the times of greatest risk of disease transmission.
- Continually Update Map of Trouble Spots
- Survey at Public Request on Public Land
- Survey at Public Request on Private Land
- Identify Ticks for the Public

Education

- Distribute Existing Literature
- Create New Literature (with Health Dept, Extension Service etc.)
- Create Educational Video (with Health Dept., Extension Service etc.)
- Distribute Literature by hand or mail in Trouble Spots
- Create and Distribute Bibliography of :
 - Pest Control Operators Certified in 8A
 - Dealers of Pesticides & Equipment of use to the homeowner
 - Lyme Disease Support Groups
- Conduct Seminars Aimed at :
 - Pest Control Operators
 - Mosquito Control Workers
 - Parks Department
 - Highway Department
 - General Public (with Health Dept./Extension Service)
- Support Research by State Department of Health, Experiment Station and Others

Control

- Continually Evaluate Various Control Techniques
 - Perform Control Techniques on Public Lands
 - Recommend Control Techniques to Private Land Owners
- Post Signs at Trouble Spots

References:

Lyme Disease: Assessment and Management of Vector Tick Populations in N.J. By T. Schulze, L. Vasvary & R. Jordan – N.J. Health Dept /Rutgers Exten. #E180

Ecology and Environmental Management of Lyme Disease by H.Ginsberg-Rutgers Press

Adopted 4/1/98

Submitted By: Howard Emerson, Camden County MEC

[Aedes canadensis canadensis \(Theobald\)](#)

By: *Dr. Wayne J. Crans*

Obituaries

Raymond J. Keyes Jr. , 55, of Bloomfield, New Jersey passed away on October 22, 1998. Ray worked in mosquito control for Essex County, NJ for 25 years and was Superintendent of Essex County Mosquito Control at the time of his death. He was a Navy Seal in Vietnam from 1964 to 1970, earning a purple heart with clusters, a Silver Star and the South Vietnamese Medal of Honor for rescuing a South Vietnamese Colonel. Surviving is his wife, Patricia D.

"Ray helped me tremendously with mosquito control operations along the Morris-Essex boundary. He was a keen and practical observer regarding the control of mosquitoes. This was especially true in the area of helicopter larviciding and adulticiding in the Passaic River basin, which produces the worst mosquito problems for Morris and Essex Counties. Most people know that Ray had a sharp sense of humor and was a great deal of fun to have around, but he also took his service to the people of Essex County very seriously. During times of high mosquito annoyance, Ray would often take phone calls at home, and he personally responded to each and every person who called regarding mosquito problems. He truly loved this career, and he will be greatly missed." [Marc Slaff, Morris County Mosquito Control Commission]

Thomas H. Jackson of Bonita Springs, Florida passed away on July 2, 1998. He was 85. Mr. Jackson was Superintendent of the Gloucester County Mosquito Control Commission from 1968 to 1978. He lived in Washington Township until moving to Florida two years ago. He is survived by his wife, Ida; a son Thomas H. Jr. Of Galeton, PA; and a daughter, Dolores Mae Chew of Williamstown, NJ.

John Henry Yeager of Elk Township, New Jersey passed away on August 29, 1998. He was 77. John worked for the Gloucester County Mosquito Control Commission for 25 years, retiring as the Superintendent in 1986. He was a former member of the Blackwood Antlers Gun Club and the Paulsboro Moose Lodge 607. He also was a member of the Hemlock Deer Club of Mifflintown, PA. He managed the Elk-Franklin Township Little League Association for 25 years. He is survived by his wife, Viola; and a daughter, Elizabeth Y. Lewis of Clayton.

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Upcoming Meetings

Northeast Mosquito Control Association

- Dec. 7 - 9, 1998
- Loon Mountain, New Hampshire
- Mountain Club 603-745-2244

AMCA Annual Meeting

- Feb. 21 - 24, 1999
- St. Louis, MO
- Regal Riverfront Hotel 314-241-9500
- Info: Pamela Toups 318-474-2723

The Alliance For Environmental Concerns

- Annual Meeting & Conference
- Nov. 19, 1998
- Fiddler's Elbow CC
- Bedminster Twp, NJ
- Info: 732-563-9252

New Jersey Mosquito Control Assoc. [Annual Meeting Last Call for Papers](#)

- March 29 - April 1, 1999
- Atlantic City, New Jersey
- Bally's Park Place

AMCA Year 2000 Annual Meeting

- March 11 - 16, 2000
- Atlantic City, New Jersey
- Bally's Park Place

Snow Pools to Salt Marsh ~ New Jersey has it all! - "Come see why we have been in this business for 100 years"

[LAST CALL FOR PAPERS](#) New Jersey Mosquito Control Association 1998 Annual Meeting.