



Illinois Mosquito & Vector Control Association

IMVCA News

VOLUME 21

Fall 2010

IMVCA Annual Meeting November 18th & 19th, 2010 Champaign, Illinois

Remember the Deadline to Reserve Rooms is November 8th, 2010

(use "MOSQ10" Group Name)

Contact the Hilton Garden Inn directly at:

Phone (217) 352-9970 or FAX: (217) 398-5763.

See You In November!

A Note From Our Secretary/Treasurer

Nina Krasavin

We are very excited to have the meeting this year in our home town. Thank you to the people who have already responded that they are attending the meeting. Remember if you have not paid your membership dues yet, it is \$20 instead of \$15 after June 30. If you are not a member your registration will be \$80 instead of \$60 for members. If you have any concerns or questions, don't hesitate to contact me via email. Don't forget to mention the code "MOSQ10" when reserving your room at the Hilton Garden Inn. I hope to see all of you soon.

Bed Bugs Gone Wild

Curt Colwell, PhD., IMVCA President

Bed bugs have gone wild. They're out of control. Like B-movie vampires on spring break they've descended on us, fed on our blood, and don't seem to want to stop partying.

But if you've played host to bed bugs, you know it's no party. It's an epidemic of global proportions, with no end in sight. About seven years ago the City of New York fielded only 79 bed bug complaints per year. Last year the City had nearly 11,000 bed bug complaints. Closer to home, the Illinois Department of Public Health received about one bed bug call per year. That was just a few years ago. Now the Department receives about one per day, and bed bug inquiries make up about 25 percent of all pest inquiries. It's the same all across America. Nowhere is safe; not the four-star hotel, the penthouse condo, the theatre, hospital or office.

People who've never heard of bed bugs usually say ants are the number one structural pest. Like most people and perhaps most entomologists, I'd barely even seen a bed bug before the epidemic hit. But older folks remember them. Through the 1950s bed bugs were worse than cockroaches. Then they nearly disappeared, some say due to the development and widespread use of pesticides like DDT and others after it. But the new millennium brought new possibilities, such as a rapidly shrinking world of globe-trotting travelers who unwittingly packed bed bugs in their luggage. These accidental terrorists carried their six-legged souvenirs across our borders. Worse yet: Some of the bugs had been "selected" for their resistance to today's pesticides, those most commonly used by pest control and private citizens alike. Now we are not only faced with a formidable foe, but one that scoffs at pyrethroids.

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The content of the articles in the IMVCA Newsletter are brought together by the Newsletter Editor and reviewed by the Executive Board. The comments in the articles do not necessarily reflect the official position of the association, nor of its officers and members.

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IMVCA Past Presidents, 1955 - 2010

We have done some research and have a nearly complete list of the past presidents and their affiliations. If you can help fill in any blanks or have corrections please let us know. Thanks!

| YEAR | NAME, AFFILIATION |
|---------|---|
| 1955-56 | Franklin C. Wray, Desplaines Valley MAD |
| 1956-57 | Ralph Gibson, Cairo MAD |
| 1957-58 | William Buchanan, South Cook Co. MAD |
| 1958-59 | Unknown |
| 1959-60 | Unknown |
| 1960-61 | G. F. Otto, Unknown |
| 1961-62 | Leo Michl, Macon MAD |
| 1962-63 | Robert Hedeem, South Cook Co. MAD |
| 1963-64 | James Lesparre, South Cook Co. MAD |
| 1964-65 | Franklin C. Wray, Desplaines Valley MAD |
| 1965-66 | William Laschinski, North Shore MAD |
| 1966-67 | Harvey Dominick, IDPH |
| 1967-68 | Francis Creadon, Desplaines Valley MAD |
| 1968-69 | Arthur MacBain, Desplaines Valley MAD |
| 1969-70 | Wilbur Mitchell, Northwest MAD |
| 1970-71 | Richard David, Northwest MAD |
| 1971-72 | Emanuel Feizer, South Cook Co. MAD |
| 1972-73 | Calvin Alvarez, Desplaines Valley MAD |
| 1973-74 | John Wilson, Wheaton MAD |
| 1974-75 | Harvey Dominick, IDPH |
| 1975-76 | Leon Haynes, South Cook Co. MAD |
| 1976-77 | Wilbur Mitchell, Northwest MAD |
| 1977-78 | Edward Disch, North Shore MAD |
| 1978-79 | Dennis Underwood, Macon MAD |
| 1979-80 | William Kelly, Carbondale MAD |
| 1980-81 | Khian Liem, South Cook Co. MAD |
| 1981-82 | Gary Clark, IDPH |
| 1982-83 | Dan Brown, Macon MAD |
| 1983-84 | Glenn Levinson, Northwest MAD |
| 1984-85 | Harvey Dominick, IDPH |
| 1985-86 | Linn Haramis, IDPH |
| 1986-87 | Donald Webb, INHS |
| 1987-88 | Stephen Hill, Macon MAD |
| 1988-89 | Donald Oemick, Northwest MAD |

| | |
|---------|--|
| 1989-90 | Donald Baumgartner, Rockford School of Medicine |
| 1990-91 | Robert Novak, INHS |
| 1991-92 | Linn Haramis, IDPH |
| 1992-93 | Donald Oemick, Northwest MAD |
| 1993-94 | Mike Szyska, Northwest MAD |
| 1994-95 | Robert Novak, INHS |
| 1995-96 | Linn Haramis, IDPH |
| 1996-97 | Donald Oemick, Northwest MAD |
| 1997-98 | Carl Jones, Univ. of IL, Urbana/Champaign, School of Veterinary Medicine |
| 1998-99 | Robert Novak, INHS |
| 1999-00 | Lee Fieldman, Reed Township MAD |
| 2000-01 | Richard Lampman, INHS |
| 2001-02 | Bill Schneck, Northwest MAD |
| 2002-03 | Ed Adler, Chicago Department of Public Health |
| 2003-04 | Donald Oemick, Northwest MAD |
| 2004-05 | Barb O'Meara, IDPH |
| 2005-06 | Jack Swanson, IDPH |
| 2006-07 | Robert Berry, North Shore MAD |
| 2007-09 | Richard Lampman, INHS |
| 2009-10 | Curt Colwell, IDPH |

IMVCA Officers & Board Members

President

Curt Colwell, IL Dept. Public Health, (217) 785-3178

Past President

Richard Lampman, Illinois Natural History Survey, (217) 244-5631

Vice President

Dave Zazra, North Shore MAD, (847) 446-9434

Trustee-Representative

William Schneck, Northwest MAD, (847) 368-7838

Secretary-Treasurer

Nina Krasavin, Illinois Natural History Survey, (217) 244-5509

Executive Board Member

Robert Berry, North Shore MAD, (847) 446-9434

Executive Board Member

Barbara O'Meara, IL Dept. Public Health, (630) 293-6800

Executive Board Member/ Newsletter Editor

Jack Swanson, IL Dept. Public Health, (309) 693-5384

West Nile Virus in Illinois and The United States - Eight Years of Data

Jack Swanson

As you may remember in the past, we had looked at some information to see how the number of human cases by September 1st related to final case numbers in Illinois as well as for the United States. If we were to use this to predict final numbers for 2010, we had one case reported for Illinois as of the first week of September. If that was about 20% (see Total below) by the end of this year we could expect around five human cases. So much for trying to predict West Nile virus, as of Oct. 1st IL has reported 25 people. For the U.S. CDC had reported 177 cases on August 31st. If that was about 25%, the final U.S. total should be 708.

West Nile Virus Human Cases in Illinois

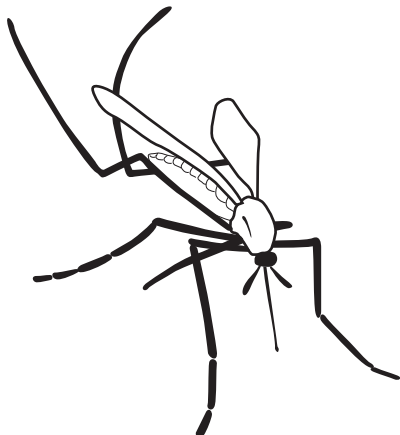
| Year | Number of Cases by Sept. 1st | Number of Cases Year End | % cases = Sept.1st/end |
|-------|------------------------------|--------------------------|------------------------|
| 2002 | 165 | 884 | 19% |
| 2003 | 3 | 54 | 6% |
| 2004 | 16 | 60 | 27% |
| 2005 | 82 | 252 | 33% |
| 2006 | 49 | 215 | 23% |
| 2007 | 14 | 101 | 14% |
| 2008 | 4 | 20 | 20% |
| 2009 | 1 | 5 | 20% |
| Total | 334 | 1,591 | 21% |

Data from IDPH website, L. Haramis, PhD.

West Nile Virus Human Cases United States

| Year | Number of Cases by Sept. 1st | Number of Cases Year End | % cases = Sept.1st/end |
|-------|------------------------------|--------------------------|------------------------|
| 2002 | 750 | 4,156 | 18% |
| 2003 | 1,764 | 9,862 | 18% |
| 2004 | 1,191 | 2,539 | 47% |
| 2005 | 821 | 3,000 | 27% |
| 2006 | 1,267 | 4,261 | 30% |
| 2007 | 906 | 3,630 | 25% |
| 2008 | 413 | 1,338 | 32% |
| 2009 | 156 | 720 | 22% |
| Total | 7,268 | 29,506 | 25% |

Data from CDC website, J. Swanson



Bed Bugs Gone Wild, continued from page 1

No wonder a recent study by the National Center for Healthy Housing concluded that for multi-family housing, where the problem seems most acute, there are currently no effective best practices for bed bug control. Meanwhile the EPA has been pressured but has declined, ironically citing health concerns, to bring back a carbamate pesticide (propoxur) no longer in use here but apparently still effective against bed bugs.

Health concerns? The irony is that bed bugs don't transmit disease – and that's a problem. Forgotten until recently, and not being vectors, bed bug issues often fall through the cracks between municipal governments and agencies such as public health. If they're not vectors, can they be considered public health pests? Recently the CDC and EPA said yes. But if health departments are preoccupied with vectors and diseases, municipalities aren't prepared to deal with bed bugs, and there is no "bed bug law" to act upon – who are you going to call?

One wonders if the bed bug invasion can be dealt with at all. Can we even afford to? On the other hand, can we afford not to deal with it? While entities including the pest management industry, EPA, CDC, public health and local governments banter over what should be done and who will be responsible, each of us has a role to play in slowing the bed bug onslaught. For example: Don't bring into your home items that may harbor bed bugs if you don't know where they've been; not from the street, the garage sale or the secondhand store, unless you can thoroughly inspect the items and are confident their bug free. Always check your bed as soon as you enter a hotel room or anywhere else you sleep that may be infested. Copious information including lists of anti-bug procedures for travelers can be found on the Internet. Take preventive measures, and if you do spot bed bugs – act fast! Immediately report them in multiunit dwellings, and ensure that pest control is in place as soon as possible. Don't be caught in the dark.

News From The Illinois Natural History Survey

Barry Alto, Program Leader of the Medical Entomology Laboratory at the Illinois Natural History Survey (INHS) has left for a job in Florida. The Director of INHS named Ephantus Juma Muturi as the interim program leader of the laboratory as of August 15, 2010. The Survey plans for a national search for the position.

Juma is familiar to all the members of the IMVCA as he attended several IMVCA meetings and gave presentations when he was a graduate student. Dr. Muturi returned last year to the Medical Entomology Laboratory as a postdoctoral research associate.

Please wish Juma good luck.

Eastern Equine Encephalitis, Horses, Humans and Etc.

Illinois has its first reports of mosquito borne diseases in horses for 2010. The West Nile virus horse case in Jefferson County is not too unusual as we have had horse or other veterinary cases reported every year since it has been in Illinois, only the number of cases change. What is news this year is a report from the State Veterinarian, Mark J. Ernst, D.V.M. with the Bureau of Animal Health and Welfare, Illinois Department of Agriculture of a horse testing positive for Eastern Equine Encephalitis (EEE). See this link for the press release of September 27, 2010.

<http://www.petvetac.com/index.php/category-table/105-equine-health-alert->

Also, Michigan is having its worst EEE outbreak in 30 years with over 100 horses and 3 people to date. This link will get you the report from The Detroit News of October 2, 2010.

<http://www.detnews.com/article/20101002/LIFE-STYLE03/10020387/1361/Michigan-s-Eastern-equine-encephalitis-outbreak-worst-in-30-years>

This news got me to looking at the USGS website with the reports for EEE and as of September 28th in our area, we see Wisconsin has one horse just north of the Illinois border with Cook and collar counties; Indiana has seven, four on their border with Michigan and three on the border with Ohio; Ohio has three cases with one in a county that has borders with Michigan and Indiana and the other two in a county on the border with Indiana. So it appears this year is the EEE year for the mid-west as opposed to where we usually see it in the southeast or northeast States.

The Illinois Mosquito and Vector Control Association Annual Student/Intern Competition

This year is looking like a good one. We have six students/interns giving presentations. Be sure to get to the meeting early on Thursday morning since we plan to get these talks started at 10:00 AM and it may last until noon. Don't miss it!

Titles and Participants:

Effects of Temperature On Adult Longevity In Mosquito *Aedes albopictus*, David Bettinardi, Undergraduate, University of Illinois

The Effects of Insecticide and Type of Larval Food Resource on the Life History of *Aedes albopictus*, James Ricci, Undergraduate, University of Illinois

Ecosystem Management: Monitoring Tick Acari Populations at Green Oaks Biological Field Station and the

Implications for Human Health, Brent Newman, Undergraduate, Knox College

Movements and Roosting Behavior of the American Robin: Implications for West Nile Virus Transmission and Amplification, Bethany Krebs, Ph.D. Student, University of Illinois

West Nile Virus Surveillance in Champaign County: Implications for Abatement Strategies, Hallie Kyrias, Public Health Intern, Champaign-Urbana Public Health District

Factors Affecting Productivity of Catch Basins as a *Culex* Larval Breeding Habitat, Allison Gardner, M.S. student, Department of Pathobiology, University of Illinois

YOU COULD WIN AN iPad™!

Purchase Raffle Tickets at the IMVCA Annual Meeting

Raffle Proceeds will be Donated to Purchase Mosquito Nets.

Random Winner Chosen During the Banquet.



A Blast From the Past....

FOCUS ON.... Illinois Mosquito & Vector Control Association

Illinois was one of the earliest centers of research and control of mosquitoes in the United States. In the 1800s, Illinois was known to early settlers as the "Graveyard of the Nation" due to the prevalence of malaria. Wealthy Chicagoans fled the region during the summer, while permanent residents resorted to anti-mosquito practices. The growing populace in the northernmost counties in the early 1900s demanded control efforts. In response, the Sanitary District of Chicago commanded a limited mosquito control program in 1921, instigated by Otto McFeely who was later nicknamed the "Father of Mosquito Control in Illinois". This effort was replaced and much expanded in 1925 by the Anti-Mosquito Board of Metropolitan Chicago. In the southernmost parts of the State, the Illinois Department of Public Health initiated a vigorous malaria control campaign in Carbondale in 1922. These and other mosquito control programs proved to be so successful and well accepted that on July 7, 1927 the General Assembly of the State of Illinois passed the Mosquito Abatement Districts Act, permitting the creation of tax-based mosquito abatement districts (MADs). Illinois was the fifth State to pass laws governing the organizations of MADs.

The first two organized mosquito abatement districts in Illinois (Carbondale MAD and Des Plaines Valley MAD) were formed almost immediately after the passage of the enabling legislation in 1927. By 1942, another six districts were organized. Currently, there are 20 formal MADs in Illinois, with the majority and largest districts occurring in the northeastern region of the State, supported by the population centers there.

The Illinois Mosquito Control Association

(IMCA) was founded in 1950, but subsequently fluttered without strong support and did not gain prominence until 1955 when it was reorganized. The directors of several prominent districts were instrumental in this reorganization, providing it with life and weaving together its fabric. Regular annual meetings, which commenced in 1955, were well attended and very successful due to member participation. Membership in the IMCA grew rapidly at inception and has increased recently to 167 members. In accord with the purpose for which the Association was founded, the annual meetings focused on education and served as a nucleus for the exchange of information and ideas. Ten volumes of the IMCA Proceedings were published through 1963, including a solitary issue in 1974. The primary philosophy of the IMCA, revised and updated in 1985, advocates: communication and the exchange of knowledge/expertise among the MADs; surveillance of mosquito populations from which to base control measures; the practice of integrated control in such a manner as to minimize harm to non-targets and the environment; the training of mosquito control personnel; and public education.

In the last 20 years, however, the IMCA has been on a roller coaster, witnessing spurts of activity congruent with membership involvement and Association accomplishments and activities. Recent activities include: (1) major revisions in the Constitution and Bylaws; (2) a change in the name of the Association to the Illinois Mosquito and Vector Control Association (IMVCA); (3) the expansion of the annual meetings to include a wider variety of vector-related topics; (4) the solicitation of joint meetings; (5) the reinstatement of a Proceedings to for-

mally document the meetings and disseminate information; (6) the expansion of the Newsletter in format, content, and frequency; (7) the distribution of a biennial membership list and; (8) cooperation with nearby Associations in the creation of a regional, multi-State vector control publication (Vector Control Bulletin of the North Central States) to consolidate all newsworthy State events and target an even larger audience at a reduced financial investment. The two-day, fall annual meeting consists of formal oral presentations, poster presentations, exhibitors, workshops, an annual business meeting, and a banquet. The issuance of continuing education credits to meeting attendees has been arranged through the Illinois Department of Public Health. Recent attendance at annual meetings has averaged 120 professionals, including mosquito control workers, entomologists, engineers, medical personnel, veterinarians, public health officials, and lay people.

Illinois has a rich history of mosquito research, with numerous investigators, particularly those associated with the University of Illinois at Urbana-Champaign and now with the Illinois Natural History Survey, who collectively have made monumental strides in many areas of culicidology. With the help of many students, Dr. William Horsfall transformed his laboratory at the Univ. of Illinois into one of the foremost mosquito research and education centers in the U.S. at that time (1950-70s), contributing immensely to the total 440 scientific and popular articles published by Illinois professionals within the last 80 years. Illinois is fortunate to have been the base and origin of several other prominent mosquito researchers. This Statewide involvement in mosquito research and surveillance continues today at several mosquito abatement districts, through the Illinois Department of Public Health, and at the newly created Medical Entomology Program at the Illinois Natural History Survey. We in Illinois have much to be proud of and much to look forward to.

Last November, the IMVCA hosted its 37th annual meeting at the Chancellor Hotel, Urbana, Illinois. This was a joint meeting with the Insects and Human Health Committee of the North Central Branch of State Agricultural Experimental Stations (NCR-165). Our 38th annual meeting is planned for November 19-20, 1992 at the Clock Tower Resort in Rockford, Illinois. Individuals desiring information about this next meeting, or those wishing to participate, should contact Donald Oemick at (708) 537-2306.



Executive Committee officers (left to right): Donald Oemick (member-at-large); Donald Baumgartner (Past President); Robert Novak (President); Rosemarie Climpson (secretary/Treasurer); Paul Geery (member-at-large); and Linn Haramis (Vice-President). Absent is Edward Disch (Trustee Member).

| 56th ANNUAL ILLINOIS MOSQUITO & VECTOR CONTROL ASSOCIATION MEETING 2010 | | | |
|---|--|----------------------------|-------------------------|
| START | PRESENTATION TITLE | SPEAKER | AFFILIATION |
| THURSDAY, NOVEMBER 18 | | | |
| 10:00 | Student Competition Introduction | Joy Joyce | IMVCA |
| 10:05 | Student #1 | | |
| 10:20 | Student #2 | | |
| 10:35 | Student #3 | | |
| 10:50 | Student #4 | | |
| 11:05 | Student #5 | | |
| 11:20 | Student #6 | | |
| 11:35 | Zoecon | Loren Cunningham | Zoecon |
| 11:50 | LUNCH, Sponsored by Zoecon | | |
| 1:00 | President's Welcome | Curt Colwell | IDPH |
| 1:10 | AMCA Update | Jim Stark | AMCA |
| 1:30 | A Clinician's View Of WNV | Russell Bartt, MD | Rush Medical University |
| 2:15 | Illinois Surveillance and Disease Update | Linn Haramis | IDPH |
| 2:45 | Valent | Ryan Solberg | Valent |
| 3:00 | BREAK, Sponsored by Valent | | |
| 3:15 | Mosquitoes, Infections and Weather: A Historical Perspective | Marilyn Ruiz | U of I |
| 3:45 | Ticks | Nohra Mateus | INHS |
| 4:15 | Mike Szyska | Mike Szyska | NWMAD |
| 4:30 | MAD & PHD Reports Part 1 | Staff | |
| 5:15 | An Update on the Natular Larvicide Formulations | Jim McNelly | Clarke |
| 5:30 | BUSINESS MEETING | | |
| 6:00 | ADITUDE ADJUSTMENT HOUR, Sponsored by Clarke | | |
| 7:00 | <i>BANQUET, iPad RAFFLE and BANQUET PRESENTATION: Insect Photography</i> | | |
| FRIDAY, NOVEMBER 19 | | | |
| 7:30 | BREAKFAST | | |
| 9:00 | Justin Harbison | Justin Harbison | NSMAD |
| 9:15 | "One Source. Countless Resources", and Electronic Data Solutions – The Sentinel. | Dana Dunklau & Mike Leahy | UNIVAR |
| 9:30 | Tracking EEEV in Northeastern US | John-Paul Mutebi | CDC |
| 10:00 | Four Star | Brian Strebler | Adapco |
| 10:15 | BREAK, Sponsored by Adapco | | |
| 10:30 | NPDES | Leslie Lowry/Darin Lecrone | ILEPA |
| 11:00 | Larval Stress and the Ability of Mosquitoes to Transmit Arboviruses | Dr. Ephantus J. Muturi | INHS |
| 11:20 | Mosquito Larvicide and Adulticide Operations in the City of Chicago 2010 | Daniel Markowski, PhD | VDCI |
| 11:30 | RAFFLE | Nina Krasavin | INHS |