

PAPERS AND PROCEEDINGS OF THE
34th ANNUAL MEETING
OF THE
AMERICAN MOSQUITO CONTROL ASSOCIATION

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PRESIDENTIAL ADDRESS
THE AMCA—PAST AND PRESENT

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Our association was founded on June 26, 1935, at a meeting in Trenton, New Jersey. It was first called the Eastern Association of Mosquito Control Workers. The first president was Dr. Thomas J. Headlee, a justly famous mosquito expert. He remained president during the 1st 4 years of the new association's existence.

On March 16, 1944, at the annual meeting in Atlantic City, New Jersey, a new constitution was adopted and the name was officially changed to the American Mosquito Control Association. Robert L. Vannotte was the first president serving under the new name.

During the early years of the AMCA, most of the meetings, 9 out of the 1st 12, were held in New Jersey, with the New Jersey Mosquito Extermination Association serving as host. Tommy Mulhern, our present Executive Director, was intimately involved during those early years in helping to establish and get the new association on a firm footing. Tommy served in a secretarial position with the New Jersey Association until 1950, and was the 1st Secretary-Treasurer and Executive Secretary of the AMCA, serving in those capacities until 1952.

Today we are in our 44th year with 43 annual meetings, counting this one, to our credit. Only a war in 1943, prevented

an annual convention. Meetings have been held in cities in 16 states and the District of Columbia. Atlantic City, New Jersey, leads all sites with 6 conventions and New Jersey leads all states with 11. California and Florida have hosted 5 each.

This year's AMCA meeting is the 3rd hosted in Chicago by the Illinois Association. Chicago now leads all cities outside New Jersey in number of AMCA conventions held.

Thirty-seven different men have served as president of AMCA. They have represented 15 U. S. states, the District of Columbia and Canada. Four states, California, Florida, New Jersey and Utah, have contributed 4 each. Maryland and the District of Columbia have 3 each. Canada, Colorado, Louisiana and Virginia have contributed 2 each, and Connecticut, Delaware, Georgia, Minnesota, New York, North Carolina and Texas, 1 each.

The affiliations of our presidents have been broadly represented. Thirteen presidents have been operational; most were directors of mosquito abatement districts. Nine have been employed by state public health or agricultural agencies; 8 have been affiliated with Federal agencies of which 4 have been from the U. S. Department of Agriculture, 3 from the U. S.

Public Health Service, and 1 from the U. S. Navy. Seven have had university affiliations.

In 1948, the AMCA became incorporated as a non-profit scientific/educational organization. The 1947 officers were retained through 1948, because of the incorporation proceedings. Duke Peters of Florida is the only man to have served more than 1 term as president since 1944.

MOSQUITO NEWS, the world's premier journal on mosquito biology and control, and a source of great pride to our organization had very simple beginnings. The first 2 volumes, 1941 and 1942, were mimeographed and the covers were decorated with drawings of different stages in the life history of the mosquito. The 1st issue included the 1st 2 numbers and was proudly decorated with a completely labeled picture of the female of *Aedes sollicitans*. This issue had a total of 32 pages. Volume 1, 1941, had a grand total of 17 articles and notes and 82 pages. It is interesting to compare Vol. 1 with 1977, Volume 37, which had 114 articles, 54 Operational and Scientific Notes and a total of 800 pages. The September, 1977, issue was our largest issue ever with 38 articles, 11 operational and scientific notes and a total of 283 printed pages.

Anyone fortunate enough to have a complete set of MOSQUITO NEWS can spend many fascinating hours reading through the pages. Mosquito News, in addition to its informational value, is actually the best written history available of our gradually increasing knowledge of the biology and control of mosquitoes and the appreciation of their role in disease transmission.

The December, 1941, issue, for example, carried the following article, headlined, "Mosquitoes Declared Guilty, Sleeping Sickness Carriers." The first line stated, "One of the most baffling mysteries of medical science was believed solved last night with the government announcement that mosquitoes carry sleep-

ing sickness." The article goes on to report that serum obtained from a pool of *Culex tarsalis* mosquitoes produced St. Louis encephalitis in mice. The mosquitoes were collected in Yakima, Washington, where in the summer of 1940, 27 humans and 50 horses had contracted sleeping sickness.

Since that time dozens of articles clarifying the role of mosquitoes in the transmission of the encephalitides have appeared in MOSQUITO NEWS.

If one were to look through the June, 1950, issue, one would read a detailed obituary of Professor William B. Herms, one of our country's greatest medical entomologists and teachers. Accompanying the obituary is a color plate, perhaps the 1st to have appeared in Mosquito News, of a painting of Professor Herms as he appeared teaching in his classroom.

One of the most useful features of MOSQUITO NEWS has been the Literature References to mosquitoes and mosquito-borne disease. Few people realize that this is not a new feature of the journal. It started in the June, 1942, issue, with Harry Stage presenting abstracts of papers of interest to mosquito control workers worldwide. Stage continued this feature until June, 1948, at which time he was joined by Helen Sollers who compiled a section on periodicals of interest to mosquito control workers. Helen and Harry worked together until March of 1953, after which Helen took over full responsibility of the Literature References which she has continued as a truly outstanding feature to the present time. The only modification was in the June, 1962, issue, when her credit line was changed to read Helen Sollers-Riedel.

One cannot talk about MOSQUITO NEWS without referring to the section which many AMCA members turn to first when they receive their journal, News and Notes. This is a compendium of information about our members and although informal, contains a surprising amount of technical information. News and Notes was a feature of MOSQUITO

NEWS, almost from the beginning, but it was not until the December, 1957, issue, that it began to contain that rare quality of writing which combined humor with information and kept your eyes glued to the page. The man responsible, of course, is Austin Morrill, Jr. I credit him with being an important factor in helping to maintain the feeling of pride and comradeship that exists to a high degree among members in this association.

As one browses through the some 14,642 pages that have been published in MOSQUITO NEWS through 1977, one cannot help but be impressed by the increase in size and quality of the journal over the years. There have been 2,018 different authors from all parts of the world. They have published 2,251 articles and 471 Operational and Scientific Notes. Over 40% of the articles and 60% of the scientific notes have been published in the last 10 years.

Editorial leadership has been a major factor in the high quality which has been developed and maintained.

It is an amazing fact that in the thirty-six years of its existence MOSQUITO NEWS has had only 3 editors. For the last 3 years MOSQUITO NEWS existed without an editor, the business of editing being under the jurisdiction of an appointed Publications Committee.

With the June, 1944, issue, Dr. Robert D. Glasgow became the first Editor of MOSQUITO NEWS. Under his skilled supervision the quality of the journal rapidly improved. He was, no doubt, greatly aided in his job by the appointment of Dr. Donald L. Collins as his associate editor in 1946. Don became the acting editor in 1949, and was appointed editor in March, 1950. His tutor, Dr. Glasgow, remained on as consulting editor until the September, 1964, issue. Don was the editor of MOSQUITO NEWS until his death in 1973. Much has been said in praise of Don Collins, for he was an extraordinarily capable man and was instrumental in gaining an international reputation for the journal.

Fortunately for the AMCA, there was another extraordinarily capable man in the wings, Dr. William E. Bickley. Bick took over the job as Editor in the September, 1973, issue, and in the same issue wrote the obituary of the man he succeeded. I will not dwell on Bick's contributions. He has demonstrated a capability fully equal to his predecessors. I will certainly not worry about the future of MOSQUITO NEWS in his hands.

It would be appropriate at this point to make a few comments concerning our other journal, MOSQUITO SYSTEMATICS, a relative newcomer compared to MOSQUITO NEWS. This journal had its beginning in February, 1969, and was the brainchild of Dr. Kenneth L. Knight. The 1st issue was an unimposing 5-page unbound mimeographed NEWS LETTER. One could receive it free by merely asking to be put on the mailing list. The journal retained its name MOSQUITO SYSTEMATICS NEWS LETTER until Vol. 4, in 1972, when the News Letter title was dropped. MOSQUITO SYSTEMATICS officially became a journal of the AMCA with Vol. 6, 1974. Under Ken's supervision, the journal has become one of choice for mosquito systematists around the world. Although now only 10 years old, MOSQUITO SYSTEMATICS has published 2,593 pages. The journal has been particularly useful to mosquito systematists for publishing long monographic-type papers. The 227 papers that have been published by 98 different authors have averaged 12 pages in length. Several papers have been over 50 pages in length and are major contributions to our knowledge of mosquito taxonomy.

MOSQUITO NEWS and MOSQUITO SYSTEMATICS are not the only publications of the AMCA. We have bulletins available on *Ground Equipment and Insecticides for Mosquito Control*, *Organization for Mosquito Control* and a *Manual for Mosquito Rearing and Experimental Techniques*. Our 1st bulletin on the *Use of Aircraft in Mosquito Control* is now being revised and re-

written by Norman Akesson. A *Directory of Mosquito Control Agencies* prepared under Gil Challet's direction was published in 1977. This very useful publication has already made over \$800 for our association.

In preparation are 3 additional bulletins: *Biological Control of Mosquitoes* under the direction of Dr. Harold Chapman, *Identification and Geographical Distribution of the Mosquitoes of North America, North of Mexico* by Dr. Richard Darsie and Dr. Ronald Ward, and a detailed functional *Index* to all past issues of MOSQUITO NEWS under the direction of Henry Rupp.

Our latest effort with the printed word, the AMCA NEWS LETTER was developed primarily due to the efforts of Tommy Mulhern. The establishment of the NEWS LETTER was approved by the Board of Directors at the annual meetings in 1975, and the 1st issue was mailed in June of the same year. We recently received the 12th number. Tommy has done a superb job editing this little paper.

Membership in the AMCA has always been a great bargain with the value received far exceeding the modest membership fees. In 1941 and 1942, there were no membership dues. Copies of MOSQUITO NEWS were mailed to members, and individual numbers were available at 35¢ a copy. Voting members of AMCA paid \$4.00 during the period 1943-48. The annual dues were \$5.00 from 1949-62, \$8.00 from 1963-68, \$10.00 from 1968-74, and the present rate of \$15.00 was established in 1975. In the last 35 years our membership dues have increased by a total of only \$11.00.

Unfortunately, the time for another dues increase is at hand. As I pointed out in my comments in a recent NEWS LETTER, the membership dues income in 1977, did not equal the cost of printing and mailing MOSQUITO NEWS for that year, and printing costs are expected to rise by 10% in 1978. MOSQUITO NEWS, fortunately, virtually pays for itself by income in the form of advertisements, page charges, and reprint sales.

Nevertheless, inflation has greatly in-

creased the expenses of the association, and to continue present services and to finance future projects we must have more income. Obviously, this must come chiefly from membership dues and subscriptions. A reorganization in membership structure is now being studied by the Board of Directors, and they are considering some new classes of membership to help boost our income.

At the Board of Directors meeting on April 17, 1978, approval was given for the establishment of a permanent AMCA Foundation Fund. This will make it possible for donors to make tax-free contributions to the AMCA; contributions which can be used in a variety of ways to further the work of our association. We also have a Financial Support Committee, chaired by Dr. Steele Lunt, which has worked hard during the past year to gather information concerning ways in which AMCA can increase its income. We will continue to work hard to obtain funds from as many sources as possible and to keep membership dues at a reasonable level and to recruit new members. Our membership committee, led by energetic Dr. Steve Romney, has recruited 92 new members since January 1, 1978.

Public information in the past has been a major weakness in our association. I am pleased to report that the Public Relations Committee, chaired by Dr. Claude Schmidt and Dr. Jack Lloyd, has been particularly active during the past 2 years. The result has been the preparation of a color brochure on *Mosquito Control in the United States* by Dr. Harry D. Pratt. This brochure will very soon be available for purchase by abatement districts and interested agencies and is intended for un-informed mature individuals. We have sample copies of the 1st page at these meetings. In addition, through Tommy Mulhern's efforts we have been able to obtain a *Mosquito Pamphlet* produced and illustrated by Katherine Moore in California. This pamphlet is intended for children, but is so fascinating that it will undoubtedly be read by their parents as well. It is extremely informative about

mosquitoes and the need for control. Kathy Moore has agreed to permit the AMCA to copyright the pamphlet and assign us the exclusive right to produce it and sell it as an AMCA publication. Copies are available at these meetings and orders can now be taken.

I would like to acknowledge the financial help provided to produce these 2 publications. Chevron Chemical Company has agreed to donate \$5,000 to insure the completion of the color brochure and the Zoecon Corporation of Palo Alto, California, has presented us with \$1,500 for the production of the *Mosquito Pamphlet*. Both of these contributions are sincerely appreciated and have greatly expedited the completion of these 2 projects. They should provide significant income for our association.

Still badly needed is a good movie of mosquito control activities which can be distributed by the AMCA to interested districts and agencies throughout the country. This is an official AMCA project and we do have a functioning committee, chaired by Glenn Stokes, which will continue to seek ways to produce this film. It will be an expensive project and we could use some financial assistance from an interested benefactor who would like to make a nice tax deductible donation.

There is another area where positive action needs to be taken by the AMCA. That is the matter of providing training for mosquito control personnel, both in this country and abroad. In the members of our association, we have the greatest mosquito control expertise to be found anywhere in the world. Yet we are doing very little to utilize that expertise to provide information on mosquito control wherever it is needed, here and abroad. Tommy Mulhern has long recognized this waste of our talent and has urged that we develop special training sessions as part of our annual meetings, or at other appropriate times. He has also recommended the establishment of a training program for workers outside of this country. Programs in which foreign workers can come to this country, and by well

planned agendas visit the mosquito abatement districts in this country which best suits their needs. I strongly support Tommy's ideas and would recommend to Paul Hunt, our incoming president, that he make this a major item of AMCA business during the coming year.

There is little time left for me to discuss in depth the major problem which has loomed in recent years, and which threatens to hamstring effective mosquito control in this country. I am, of course, referring to the ever-increasing constraints imposed on mosquito and vector control agencies by statutes and regulations of Federal and State Agencies. However well meaning these constraints are, they are too often imposed without an awareness of the methodology required by mosquito and vector control programs. The result has seriously hampered and inconvenienced mosquito and vector control agencies in protecting the public they serve. Mosquito and vector control agencies stand ready to cooperate to any reasonable extent with any group concerned about the environment but should not be obstructed in carrying out their mandated responsibilities by excessive or unreasonable or costly procedures made necessary by regulations that are, in fact, unnecessary.

The AMCA has formed a special committee, the Information Coordination Committee, to look into this problem and obtain specific instances of harmful constraints. Letters have been sent to all mosquito control agencies in the U. S. asking them to provide us with such information. We have already received several replies. We are not the only ones feeling the effects of unnecessary restrictions, delays and illogical labelling of chemicals. In the March issue of the *Agri-fieldman* and *Consultant Magazine*, Dr. Ellery Knake, scientist at the University of Illinois, speaking to the agricultural community, discusses some of the problems associated with and within the Environmental Protection Agency. I quote from a section of his excellent article. "Senator Kennedy suggested that EPA improve their level of

competency and professionalism. In my opinion, EPA doesn't need to 'clean house' to do that. They have some intelligent, enthusiastic and dedicated personnel. But to be true professionals they must learn to associate with other professionals, belong to professional organizations, receive and read professional publications, visit with scientists and practitioners in the pest control disciplines and keep informed of developments in the field."

To me, it is obvious that the only solution to these problems is an all-out program by all pest control disciplines to utilize their own professionalism to educate the EPA and other restrictive agencies. They must be informed before they can appreciate the complex and varied needs in our professions as well as the true professionalism and knowhow that already exists. In 1976, AMCA passed a resolution offering its services to EPA. We received no response at the time, but there are some signs that the EPA has had a change in attitude and is now seeking our help. At the recent meeting of the Mid-Atlantic Mosquito Control Association, at Wrightsville Beach, North Carolina, an EPA spokesman presented an encouraging paper in which he requested help and input from mosquito control personnel to aid them in the establishment of policy. On March 22, 1978, our Executive Director received a letter from the Executive Office of the President's Council on Environmental Quality, requesting the AMCA to provide information on mosquito control activities.

In addition to the Information Coordi-

nation Committee, the Board of Directors has just approved the appointment of a special negotiator who will represent the AMCA in dealings with regulatory and other agencies. He will be called Extension Representative for AMCA. One of the most capable and distinguished men in our association, Dick Peters, has agreed to serve in this capacity. We must give him all the help we can in his negotiations for our cause.

This past year has been one of great personal satisfaction to me. It has been a great privilege and pleasure to serve this association, and to work close in hand with our Executive Director, Tommy Mulhern. I had the opportunity to visit our central office in Fresno, last February, where I discussed AMCA business with Tommy and his administrative assistant, Linda Shields, and our Treasurer, Dr. Don Murray. These dedicated people are the heart of our association and are doing a superb job of providing continuity and stability to our association. Their careful and intelligent handling of our funds has kept us in a healthy financial condition. They run a very tight ship. AMCA business, conducted by this central office, has expanded to the point that Tommy and Linda, in addition to routine matters, handle over 35 correspondence items during an average day. The postal bill for 1977, exclusive of *Mosquito News*, was over \$3,000. Tommy, our Executive Director since 1973, has already received the Medal of Honor for his contribution to our association and mosquito control. This is our most prestigious award and if I had my way, he would receive it on an annual basis.

Larvivorous Fish

Dr. Ernest C. Bay, W W R E C, Puyallup, WA 98371, needs information about the use of fish in mosquito control. He is one of the contributors to Bulletin No. 6. If you missed the notice in the last AMCA Newsletter and can cooperate on this project, here are the questions that need to be answered:

1. Do you use the mosquito fish, *Gambusia affinis*, in your mosquito control program?
2. If you are using fish other than, or in addition to, *Gambusia affinis*, what species?
3. If you are using fish, in what situations?
4. What species of mosquitoes are targets in your control programs using fish?