

ASSOCIATION NEWS

MINUTES OF THE 16TH ANNUAL MEETING OF THE AMERICAN MOSQUITO CONTROL ASSOCIATION

BOSTON, MASSACHUSETTS, MARCH 27-30, 1960

RECORDED AND REPORTED BY A. F. GEIB

A meeting of the Board of Directors of the American Mosquito Control Association was convened at the Somerset Hotel, Boston, Massachusetts, 10:00 a.m., March 27, 1960 by Association President Archie Hess. Present were D. M. Jobbins, President-elect; W. E. Bickley, Vice-President; T. G. Raley, Executive Secretary; L. W. Smith, Treasurer; R. L. Vannote, National Advisor; A. F. Geib, Recording Secretary; J. M. Hirst, Past President; Regional Directors: B. Hocking, Canada; R. W. Bunn, S. E. Central; J. A. Mulrennan, S. Atlantic; C. F. Scheel, N. E. Central; O. P. Breland, S. W. Central; J. E. Graham, N. Central; D. Grant, S. Pacific.

Absent were: Regional Directors L. S. Miller, N. Pacific; Vernon Conant, N. Atlantic; L. Vargas, Mexico, Central and South America.

Committeemen and others present: A. Lindquist, A. W. A. Brown, R. Dorer, F. Creadon, B. Brockway, C. Robinson, G. Collett, D. Collins, E. Thurman, R. Armstrong, C. Williamson, E. Davis, G. J. Foyle, J. Nelson, F. Stutz, T. Mulhern.

President Hess called the meeting to order with the roll call.

It was moved by L. W. Smith that the minutes of the 15th Annual Meeting of the AMCA be approved as published in the June 1959 issue of *Mosquito News*; seconded by C. F. Scheel; carried.

President Hess appointed the following Resolutions Committee: D. Grant, Chairman; R. Armstrong and A. Lindquist.

The President submitted his ANNUAL REPORT. (*Attachment #1.*) T. G. Raley moved acceptance; seconded by D. Grant; carried.

G. C. McFarland announced plans and arrangements were underway for the 17th Annual AMCA meeting to be held jointly with the California Mosquito Control Association, Disneyland, California, January 30, 31, and February 1 and 2, 1961.

President Hess called for the report from the Nominating Committee Chairman. Hirst reported that the actions of the Committee and Nominations for offices had been published in the December 1959 issue of *Mosquito News*.

REPORT OF THE TREASURER, L. W. Smith. (*Attachment #2.*) He noted the Association had done exceptionally well during 1959, concluding the year with a net increase of approximately \$3,000.00. *Mosquito News* Editor, D. Collins, reviewed financial details of publication of the *News*. Lindquist moved acceptance of the Treasurer's report; seconded by Jobbins; carried.

REPORT OF FINANCE COMMITTEE, C. Scheel, Chairman. (*Attachment #3.*) Grant commended and moved acceptance of report; seconded by Jobbins; carried. Discussion was held concerning recommendations contained in the report. President Hess appointed the following committee to study the Finance Committee recommendations and present their considerations to the incoming Board on Wednesday: Chairman, Jobbins; L. Smith, C. Scheel, T. Raley, F. Creadon, E. Thurman and C. Williamson.

C. Scheel reviewed the 1959 budget and expenditures. He recommended that a vote of thanks be given all those who contributed to the economic gain accrued during 1959. He then submitted the proposed budget for the calendar year 1960.

Hess asked for acceptance as a report and requested that the final budget be acted upon at a later meeting of the Board. It was so moved by Grant; seconded by Lindquist; carried.

The meeting recessed at 12:00 p.m., to reconvene at 1:15 p.m.

REPORT FROM THE EDITOR OF *Mosquito News* AND STAFF; DON COLLINS. (*Attachment #4.*) Hirst moved acceptance of report; seconded by Jobbins; carried.

REPORT FROM STANDING COMMITTEE ON PUBLICATION OF *Mosquito News*; Ken Knight, Chairman. (*Attachment #5.*) In the absence of the Committee Chairman, the report was read by Hess. Scheel moved acceptance of the report; seconded by Lindquist; carried. The following recommendations contained in the report were considered:

1. An Editorial Board for *Mosquito News*. Following discussion, it was concurred that the Standing Committee on Publication of *Mosquito News* could act as an Editorial Board, without the need to amend the by-laws; also that appointment of members to this committee would be in accord with the recommendations.
2. Recommends discontinuance of the practice of turning in manuscripts at the Annual Meeting. Bickley moved that a notice be appropriately placed in *Mosquito News* requesting that henceforth papers presented at the Annual Meeting, with accompanying letter of transmittal, be *mailed* to the Editor in *proper form for publication*; seconded by Hirst; carried.
3. Publishing date on which manuscripts are accepted.

Grant moved that this recommendation be adopted, seconded by Jobbins; Bickley moved the motion be tabled; seconded by Hirst; carried.

REPORT FROM PROGRAM CHAIRMAN, W. E. Bickley. Noted that in developing the program there had been two meetings of the President-elect and the Vice President, and much correspondence. The program

as developed emphasized five general areas of interest:

1. Eastern Encephalitis.
2. Residue Problems.
3. Flight Range.
4. Mosquito Control Operations.
5. Insect Resistance.

REPORT OF COMMITTEE ON SALES OF ADVERTISING IN *Mosquito News*; F. Creadon, Chairman. (*Attachment #6.*) The report was accepted by acclaim.

REPORT OF COMMITTEE ON GOOD NEIGHBOR CLUB; E. Thurman, Chairman. (*Attachment #7.*) Accepted by acclaim.

REPORT OF LOCAL ARRANGEMENTS COMMITTEE CHAIRMAN, Bob Armstrong. The Association is indebted to the Plymouth Plantation for their aid in printing the program and permission to use their cut on the back of the program cover. The report was accepted by acclaim.

REPORT OF BUSINESS MANAGER OF MISCELLANEOUS PUBLICATIONS; C. Williamson, Business Manager. (*Attachment #8.*) Williamson noted that sales of Miscellaneous Publications has declined considerably. He recommended:

1. Bulletin #1, now out of print, be rewritten. Bulletin #2, with 200 to 300 copies on hand, seemed an adequate supply. Bulletin #3 with 60-70 copies on hand seemed an adequate supply.
2. Office of Business Manager be consolidated with that of Executive Secretary or Treasurer.
3. Uncollectible bills be written off.

Jobbins moved acceptance of report; seconded by Smith; carried.

REPORT OF MISCELLANEOUS PUBLICATIONS COMMITTEE, Howard Greenfield, Chairman. (*Attachment #9.*) Hess read the report in the absence of Greenfield. Hirst moved acceptance; seconded by Bickley; carried.

REPORT OF MEMBERSHIP COMMITTEE, B. Brockway, Chairman. (*Attachment #10.*) Hess and Raley both commended committee activities in the past year. Following discussion it was concurred that the

new Committee be instructed by the incoming President to consider the time for dropping delinquent members from the *Mosquito News* mailing list. Hirst moved acceptance of report; seconded by Mulrennan; carried.

REPORT ON PUBLIC RELATIONS, R. E. Dorer, Chairman. (*Attachment #11.*) Raley moved acceptance; seconded by Hirst; carried.

REPORT OF NATIONAL ADVISOR, R. L. Vannote. (*Attachment #12.*) Grant moved acceptance; seconded by Jobbins; carried.

REPORT OF RESEARCH AND DEVELOPMENT COMMITTEE, A. BROWN, Chairman. (*Attachment #13.*) Grant moved acceptance of report; seconded by Mulrennan; carried.

REPORT FROM COMMITTEE ON BYLAWS, R. Peters, Chairman. Hess read a letter from Peters noting there were no recommendations or changes for the Bylaws.

LEGISLATIVE COMMITTEE REPORT, C. Robinson, Chairman. (*Attachment #14.*) Bickley moved acceptance; seconded by Geib; carried.

REPORT OF EXECUTIVE SECRETARY, T. Raley.

1. Raley noted that Board approval of new members was in order. Smith moved that all new members be approved; seconded by Bickley; carried.
2. Reported receipt of numerous requests for information regarding Association purposes and objectives and data on *Mosquito News*.
3. Noted that an invitation had been received from Texas to hold the 1962 AMCA meeting at Galveston.
4. Called attention of AMCA members that the Office of Executive Secretary would supply on demand a list of membership and subscribers for any State or Region.
5. Asked for comments concerning the practice of charging for membership lists when requested by organized agencies and commercial firms. Jobbins moved indorsement of this practice; seconded by Mulrennan; carried.

President Hess commended the Executive Secretary, all officers, committees, and members for the fine job done this past year and thanked all for their help during his term of office.

The meeting adjourned at 5:00 p.m.

GENERAL BUSINESS MEETING—TUESDAY, MARCH 29, 1960, 3:30 P.M.

The meeting was called to order by President Hess, who reviewed the highlights and business activities of the Association during the past year as shown in his annual report, and the minutes of the meetings.

President Hess reported that a number of applications for Association membership had been received at these meetings. It was moved by Bickley, seconded by Breland that all new membership applications be approved; carried unanimously.

President Hess called for the report of the Nominating Committee. Chairman Hirst read the names of the nominees for officers of the Association as listed in the December 1959 issue of *Mosquito News*.

For President, D. M. Jobbins, elected unanimously.

For President-elect, Dr. W. E. Bickley, elected unanimously.

For office of Vice-President, there were four nominees: Brockway, Buzicky, Geib and Micks. Members of the Nominating Committee were appointed to serve as an ad hoc election committee to distribute ballots and serve as tellers, with Bob Vannote as chief teller and A. W. A. Brown as recorder. Ballots were distributed, marked, collected, tallied and recorded by the ad hoc committee. There were 139 votes cast for the office of Vice-President, with one being rejected as improperly marked:

Brockway	17 votes
Buzicky	7 votes
Geib	67 votes
Micks	47 votes

With no candidate receiving a majority, ballots were again marked for one of the two candidates receiving the greatest number of votes on the first ballot. Votes on the second ballot numbered 118 for the office of Vice-President, with the results: Geib elected Vice-President with 71 votes; 47 votes cast for Micks.

Majority votes were cast for the following offices as follows:

Recording Secretary, E. Thurman, 71 votes.

Regional Directors, South Atlantic Region, J. A. Mulrennan, 103 votes; Northwest Central Region, J. E. Graham, 69 votes; Southwest Central Region, O. P. Breland, 112 votes; North Pacific Region, C. M. Gjullin, 93 votes; Mexico, Central and South America Region, Dr. L. Vargas, 76 votes.

President Hess requested a REPORT FROM THE RESOLUTIONS COMMITTEE, which was read by Chairman D. Grant. (*Attachment #15.*) Mulrennan moved acceptance of report; seconded by Scheel; carried.

The President asked for discussion considering a proposal to increase membership dues. Following discussion, McFarland moved that a vote for or against proposal be taken by a show of hands; seconded by Rogers; vote showed proposal overwhelmingly defeated.

Helen Sollers requested that wherever possible, references be included with articles submitted for reviews and abstracts.

Don Collins called attention to the need

for more Scientific Notes as well as News and Notes in *Mosquito News*.

Dr. Meyers reported that participants in the Trustees' meeting were pleased with results. General consensus was that the Trustees' meeting:

1. Should be held again.
2. Should be informal.
3. At least some prepared questions be submitted.
4. A Moderator should be chosen, who would direct meeting.
5. Attendance be limited to Trustees.

Past President Dorer escorted Dan Jobbins to the rostrum where he accepted the President's gavel from Archie Hess, outgoing President. Jobbins noted that in his experience there were a greater diversity of specialized interests in the AMCA than in any other group with which he was associated.

Among objectives for the coming year, he hopes to work toward:

1. Achieving balance among the various interests and individuals of the Association.
2. Accomplish consolidation of some of the Association's activities.
3. Further the interests and purposes of the Association with the aid of committee and membership support.

Past President Dorer escorted President-elect Bickley to the rostrum for introduction, and then, in turn, Vice-President Geib.

The meeting was adjourned at 5:00 p.m.

BUSINESS MEETING—1960 BOARD OF DIRECTORS

Wednesday, March 30, 1960, 7:00 P.M.

RECORDED AND REPORTED BY ERNESTINE THURMAN

Present: Jobbins, Bickley, Geib, Raley, Smith, Vannote, Bunn, Gjullin, Breland, Scheel, Hirst, Graham, Hess, McDuffie, Fisher, Brockway, McFarland, Thurman, Collett, LaBrecque, Armstrong and Collins.

Absent: Hocking, Grant, Mulrennan, Conant and Vargas.

President Jobbins opened the meeting and read a letter from Vernon Conant,

Director North Atlantic Region, requesting that Mr. Wm. A. Fisher be allowed to represent him in his absence. Bickley moved acceptance of Conant's request, seconded by Scheel; carried.

President Jobbins submitted a suggested list of committees for consideration and appointments. (*Attachment #16.*)

Hess moved that all Committee Chair-

men be approved as shown on the list, seconded by Smith; carried.

Hirst and Bunn both questioned need for continuing the Research and Development Committee, pointing out that its purpose had been served and it could be reactivated at a later date if needed.

Hess restated motion—moved that all Committee Chairmen be appointed as shown in *Attachment #16*, seconded by Smith; carried, with Hirst and Bunn voting "no."

Raley moved that A. W. A. Brown act as Chairman for the Research and Development Committee, seconded by Bickley; carried.

Hess moved that the Standing Committee on Finance be continued as in the past; Scheel Chairman, with the Chairman responsible for appointing Committee members, seconded by Bickley; carried.

Raley moved that Francis Creadon be appointed Chairman of the Committee on Sale of Advertising Space and that he choose his Committee members; seconded by Hess; carried.

Raley moved that Wm. Thom be appointed Assistant Treasurer, seconded by Bickley; carried.

Hess commended new President, Jobbins, for having committees and appointments prepared in time for consideration at this meeting.

President Jobbins noted that Don Collins would be attending the 11th International Congress of Entomologists meetings at Vienna, Austria, as an official delegate of the AMCA at no cost to the Association. Following discussion of official delegates of the Association attending these meetings, Hess moved that the AMCA appropriate \$600 of Association money, to be added to the \$1,500 grant received by the Association; these funds to be used to pay the transportation costs of three members as Official Delegates to the meetings; transportation costs of delegates would cover round trip, home base to home base, with any balance remaining after paying transportation costs to be divided evenly among the three delegates to help on their expenses, seconded by Bunn; a show of hands

was requested by President Jobbins—there were 11 ayes and 1 no vote by Hirst.

President Hess had earlier canvassed Board Members by mail to obtain a census of who might be logical as Official Delegate of the AMCA. Potential delegates chosen from this balloting were: Raley, Jobbins, Bickley, Hess, Smith, McDuffie, Morrill, Provost, Sollers and Peters. Among these, Hess and McDuffie requested that they not be considered. Hess requested that secret ballots be cast to determine who would be the three Official Delegates chosen from the approved list, to be sent at the expense of the AMCA.

Ballots were prepared, recorded and tallied. The results were: three members receiving most votes and thus elected to represent the AMCA—Raley, Jobbins and Smith, with Bickley first alternate and Peters second alternate.

Bunn noted that Ernestine Thurman would be attending the 11th International Congress of Entomologists meetings and moved that an Official letter be written designating her as an Official Delegate of the AMCA, seconded by Hess; carried.

Raley moved that \$200 be allowed Don Collins to aid in defraying travel expenses as an Official Delegate to the 11th International Congress of Entomologists meetings, seconded by Breland; carried.

McFarland officially invited the AMCA to meet jointly with the California Mosquito Control Association at Disneyland, California; January 30, 31, February 1 and 2, 1961. Raley moved the invitation be accepted, seconded by Hess; carried.

Raley moved acceptance of the Gulf Coast Mosquito Control Association (Texas) invitation to meet jointly with the AMCA in 1962, and the New Jersey Mosquito Extermination Association's invitation to meet with it in 1963, seconded by Breland; carried.

Hess moved that the 1959 Proceedings be published in *Mosquito News* with due recognition on the cover to the Northeast Mosquito Control Association, seconded by Bickley; carried.

Raley moved that the President of the AMCA write a letter of appreciation and

thanks to Don Collins' immediate superior for the wonderful job done by him and his staff in editing and publishing *Mosquito News*, seconded by Hess; carried.

Raley reported that the History of AMCA would be ready for publication in *Mosquito News*, probably in the September or December issue.

President Jobbins called for a REPORT FROM THE SPECIAL COMMITTEE (appointed at the Sunday Board Meeting) TO CONSIDER CONSOLIDATION OF BUSINESS ACTIVITIES.

Vannote reported for Jobbins. (*Attachment #17*.) Hess moved approval of Committee's recommendations, seconded by Bunn; carried.

Bunn moved that necessary action be taken to make proper investment of surplus Association funds, seconded by Hess; carried.

Bickley moved that an Association membership list be published in *Mosquito News* at the earliest date possible, seconded by Breland; carried.

ATTACHMENT #1

PRESIDENT'S ANNUAL REPORT—MARCH 27, 1960

Four communications were transmitted to the Board of Directors and the President's Advisory Committee requesting approval and advice on various matters concerning the Association. In all of these matters except No. 4, the President has refrained from voting or taking sides. The principal items considered were as follows:

1. *Appointments of Committees which were not made at the meeting of the Board of Directors at Salt Lake City on April 15, 1959.* Approved.
2. *Reprinting covers of June 1959 issue of Mosquito News for use by Chairman of Membership Committee in soliciting new members.* Approved.
3. *Exhibiting Rollie Dorer's "AMCA Mosquito" at the Entomology meetings in Detroit and the AMCA meetings in Boston.* Approved.
4. *Appointment of a committee on amalgamation of AMCA with State associations.* Not approved. (Board—6 for and 6 against; President—against.)
5. *Increase in annual membership dues.* Eight of 12 members of the Board and 4 of 7 members of the Advisory Committee recommended an increase, but most of them favored a small increase. Acting in accordance with this recommendation, the President on November 24, 1959, submitted to the Executive Secretary and the Chairman of the Bylaws Committee a proposal that our bylaws be amended to in-

crease the annual dues to \$6.00. This proposal is to be voted upon at the final business meeting on March 29, 1960. In accordance with Article XI of our bylaws, it will require a two-thirds vote for approval.

6. *Change in name of Association and Mosquito News.* Nine of 12 Board members voted against, and 5 of 8 members of Advisory Committee voted against. Therefore, no further action was taken on this matter.
7. *Appointment of International Advisor.* Seven of 12 members of the Board and 4 of 7 members of the Advisory Committee favored the appointment, and the majority preferred separate advisors for the New and Old World. Don Pletsch was the unanimous choice for New World Advisor and Tony Brown, Don Micks, and Louis Williams were tied for Old World Advisor. Since final action of the Board was not received until December, the appointments were deferred. It is recommended, however, that (1) the incoming President appoint Don Pletsch as the International Advisor for the New World and a member of his own choice as International Advisor for the Old World; (2) that he submit these appointments for approval at the Board of Directors' meeting on Wednesday evening, March 30, 1960.

8. *AMCA Representative at International Congress of Entomology, Vienna, August, 1960.* The Board and the Advisory Committee voted unanimously for Don Collins to be our representative. However, Don's application to the Entomological Society of America was also approved, as were four other members of our Association (H. C. Barnett, D. W. Micks, G. B. Craig, and A. O. Lea). We, therefore, requested the Board to suggest additional names for the AMCA application (which has subsequently been approved for \$1,500 effective May 1, 1960). Listed in order of priority are the 10 individuals who received the highest number of votes together with the total voting points each received: 1—T. G. Raley (27); 2—Manley Jobbins (25); 3—W. E. Bickley (23); 4—A. D. Hess (21); 5—Lester W. Smith (18); 6—W. C. McDuffie (17); 7—Austin W. Morrill (15); 8—Maurice Provost (11); 9—Helen Sollers (10); 10—Richard Peters (10). The President did not exercise his prerogative to vote on this matter, and hereby withdraws his own name from consideration. It is recommended that the incoming President submit the names of T. G. Raley and one other of the above individuals for approval at the Board of Directors' meeting on Wednesday, March 30, 1960.

Other recommendations which have been received from the Board and the Advisory Committee include the following:

1. *Ways for Obtaining Additional Financial Assistance.* (a) Intensified drive for new members covering a wider area of specialization; (b) direct contributions from commercial sponsors and more participation of commercial firms in Association activities; (c) more advertising covering a wider variety of products; (d) grants from philanthropic organizations, Ford Foundation, Rockefeller, etc.; (e) obtain more support from state and local abatement organizations.

2. *Promoting Sale of AMCA Pins.* (a) Offer to all new members or make part of new membership fee; (b) sales campaign at annual meeting; (c) have Regional Directors sell them; and (d) let the ladies sell them—they've been pinning things on men from birth to grave!

3. *Miscellaneous.* (a) Require guarantee of \$1,000 to AMCA from sponsors of annual meeting and split profits above that amount; (b) Develop simpler and less costly format for *Mosquito News*; (c) Drop the title of "Dr." for individuals with Ph.D. on our program; (d) *Mosquito News* should exchange advertising space with other journals and carry features on individuals and institutions; (e) Establish a central business office; (f) Establish mail balloting for election of officers; (g) Give additional remuneration to the Executive Secretary; (h) Provide honorary and paid life memberships; and (i) Have a popular lecture at each annual meeting.

At the meeting of the Board of Directors in Salt Lake City on April 15, 1960, it was recommended that the annual meeting be held in southern California in 1961, in Galveston in 1962, and in New Jersey in 1963. Under date of March 4, 1960, a letter has been received from Price Daniel, Governor of Texas, inviting the Association to meet in Galveston in 1962.

During his year of tenure the President spent \$20.64 for postage, \$7.32 for telephone calls, and \$1.40 for a light on the speaker's stand, making a total of \$29.36. This leaves a debit of only \$3.67 over the \$25.69 carried over from the \$100.00 allocated for the 1959 program. When the President is reimbursed the \$3.67 he will add \$1.33 to it and sponsor another Good Neighbor!

Appreciation is expressed to the Board of Directors, the President's Advisory Committee, officers of the Association, and the various Committee Chairmen and mem-

bers for their cooperation and assistance during the past year. It is recommended that the incoming President again appoint

all Past-Presidents not on the Board to serve as a President's Advisory Committee.

—A. D. HESS, *President*

ATTACHMENT #2

AMERICAN MOSQUITO CONTROL ASSOCIATION METUCHEN, NEW JERSEY

SUMMARY OF CASH RECEIPTS AND DISBURSEMENTS

TREASURER'S ACCOUNT, NOVEMBER 27, 1958 TO DECEMBER 31, 1959

RECEIPTS

	General Account	Special Publications
Balance on deposit—November 27, 1958.....	\$6,034.02	\$1,927.30
Dues and subscriptions.....	\$7,453.23	
Advertising.....	3,711.23	
Back issues.....	208.00	
Reprints.....	1,179.36	
Good Neighbor Club.....	590.00	
Bulletins.....	6.00	
C. T. Williamson—transfer of funds.....	0	500.00
Mailing lists.....	145.00	
Unidentified deposits.....	20.00	
Transfer of funds and exchanges (contra).....	20.00	150.00
Other receipts—postage refund.....	3.00	
Exhibits Committee—15th Annual Meeting.....	1,350.00	
Sale of pins.....	80.50	
	<u>14,766.32</u>	
	20,860.34	<u>2,577.30</u>

DISBURSEMENTS

Printing of <i>Mosquito News</i> , reprints and mailing charges.....	\$9,341.69		
Office supplies, expenses, etc.....	303.93		
Postage.....	451.90		
Fidelity bond.....	5.00		
Traveling expenses.....	500.00		
Exhibits—materials and expenses.....	325.26		
Convention expense—1959.....	100.00		
Examination of Treasurer's records.....	75.00		
Refund to subscribers.....	10.00		
Bank charges.....	2.77		
Transfer of funds to general account (contra).....		\$150.00	
Exchanges (contra).....	20.00	11,135.55	150.00
	<u>9,664.79</u>		<u>2,427.30</u>
Balance—December 31, 1959 (on deposit—Commonwealth Bank of Metuchen, Metuchen, New Jersey).....		\$9,664.79	\$2,427.30

—Submitted by LESTER W. SMITH, *Treasurer*
Audited by Nathan Lipman, C.P.A.

ATTACHMENT #3

REPORT OF THE STANDING COMMITTEE ON FINANCE

March 27-30, 1960

The income levels as set up by the Finance Committee in its 1959 budget were achieved with gratifying results. Not alone were our receipts much higher than anticipated but disbursements were below allotments. Those responsible for this superb accomplishment are deserving of a hearty vote of thanks and gratitude from the Association.

Our financial position is highly adequate

for current purposes and provides possibilities of studying such measures of expansion and development as may appear feasible and timely to the board.

The Finance Committee is hopeful of being able to contribute constructively to these deliberations and also enlists whole-hearted membership support in any of these efforts.

—C. F. SCHEEL

ATTACHMENT #3A

SUPPLEMENT TO REPORT OF FINANCE COMMITTEE

One of the recognized functions of the Standing Committee on Finance is that of giving thought to developing ways and means of providing operating revenue to the association. This committee, however, as mentioned in previous annual reports, felt that they would be extremely remiss in such deliberations if they failed to consider measures which in their opinion might, through proper financial support, lead to a further development in the growth and aspirations of the Association. In accord with this view the following is being submitted to the Board members for their consideration.

The importance of material developed and broadcast by our many talented association members is common knowledge and causes one to look eagerly toward new horizons of enlightenment and usefulness. Much has been said in the past of the real need for the association as a medium of importance in the field of vector control. A desire to make its influence of greater national and international value has been constantly on the minds of many of our good brothers. Last year, for instance, at the Salt Lake City meeting the Research and De-

velopment Committee presented a rather sagacious report outlining among other things the pressing need for satisfactory solutions to control-worker problems. At the same meeting Archie Hess gave his views on the need to recognize expanding interests in the association if we are to continue our healthy condition of growth and progress. These are only typical of the many challenges constantly being laid at our doorstep.

To what extent these new horizons may or should become a part of association consideration are of vital concern to the Finance Committee. While this committee feels that we should never under any circumstances accept the status quo as a fixed working level it is nevertheless of the opinion that a definite relationship exists between any financing program and the successful expansion of Association interests—they must grow together.

Since the AMCA was organized as a non-profit organization it would seem more or less mandatory not to embark upon any fund producing plans beyond those necessary properly to support authorized activities including, of course,

reasonable margins for contingencies. As the demand for desirable project material may become evident, so also does the toll for promotion mount more or less proportionately whether it be gratuitous or otherwise. Regardless of how this effort is provided, it appears to this committee as sound practice to assure supporting financing or gratuitous service well in advance of inaugurating any expense project, thus avoiding the possibility of deficit spending.

As an association we have been extremely fortunate over the years in having efficient and constructive assistance contributed in unlimited measure by the treasurer, executive secretary, editor, advertising manager and others. While this effort had rather simple beginnings, as in all operations of this character, it by nature has become progressively more involved, not alone to the individual concerned but also something of a growing imposition upon the district or employer who has graciously but perhaps unintentionally permitted such chores to build up to extra-curricular activities of sizeable proportions. All of which gives rise to some speculation on ways and means of more independently providing for this phase of our activity. Consolidation of some of the increased routine detail of the treasurer and executive secretary's office and employing a full time clerk has been discussed and seems worthy of further consideration. In due time the merging of other routine activities would naturally follow, leading ultimately to the possibility of engaging the services of a full time office manager who would be qualified to administer our broadening interests and services. Whether full time skilled clerical experience should be hired or whether it would be preferable to engage part time help at a more attractive rate are minor details to be resolved. Possibly any step in this direction should be limited for the present to some occasional outside help local to both offices.

All of these projects, particularly those

relating to our more important expanding interests, should of course not be instituted hastily but rather individually explored for net values and required financial and procedural support before adoption.

As a committee we feel that anything but adequate financial preparation in these efforts would tend to curb needed flexibility in properly developing any plan and possibly stifle early accomplishment which could lead to the undesirable practice of deficit spending by dipping into reserves.

The matter of sending delegates to the Vienna convention, which has already been discussed, or meeting other special contingencies, further cuts into our reserves. However, reserves are purposely set up to support such contingencies and not for the purpose of carrying programmed expenditures. It would appear that a modest *increase in membership dues* would readily supply any needed income for full time clerical help as mentioned above and at the same time should not be considered too severe by the constituency when it sincerely reflects upon the value and character of material now received from the association. Higher revenue from increased dues is of course only one of several sources from which support of this and other ventures was expected to emerge. As the need presented itself a study of the *Mosquito News* format, a more intensive drive for *advertising* including the soliciting of non-member suppliers, more activity toward *sustaining memberships*, budget appropriation for educational purposes from all districts where possible and a new approach to the matter of securing *grants-in-aid* on specific projects are a few of the other potentials. It must be remembered that some of the present bank balance was accumulated through the sale of various bulletins. Such bulletins might reasonably be issued to each member without cost as one of the services to which a properly adjusted dues level may justly entitle them. As it now stands, the sale of

bulletins has never developed into a very lucrative steady source of income, but has deteriorated into an inactive stockpile of valuable material resting on our shelves. So our income must, over the long pull, be implemented by more substantial steady sources of revenue as genuine fixed needs become evident.

Currently we have a bank balance of approximately \$12,000 of which at least half may properly be invested in the *purchase of acceptable securities*, leaving the balance for a *contingency fund*. The practicability of disbursing part of this surplus for some specific project now and deciding to operate at a lower balance level is also worthy of early consideration. However, it would appear that rather than not aggressively pursuing every possible source of income, we should at all times have in our docket projects waiting for needed financial assistance and exploitation.

All of the above discussion pertaining to expanded association interests, consolidation of certain office routines, absorbing portions of the gratuitous effort, establishing reasonable fiscal balance levels and other kindred matters such as the possibility of *carrying the planning and expense of the annual meetings* have for some time been of major interest to the Finance Committee.

It is our considered opinion that integrating the functions of the *Finance Committee* with those of the *Ways and Means Committee*, thus forming a

Finance and Policy Council, holds considerable promise of enhancing the proper dispatch of any such matters. It would be the function of this committee, as we see it, to entertain or initiate and evaluate the merits of any new undertaking, giving due consideration to required financial and procedural needs. It would present concrete recommendations to the Board of Directors well in advance of the yearly meeting and would also be in a much better position to prepare an annual budget on a sounder basis.

Such a Council might be made up of at least the following: the immediate past-president, who would have fresh knowledge of weaknesses of unfinished development requiring continued attention, the executive secretary who is constantly in touch with all aspects of the operation, a member of the existing finance committee, the president elect and the new president who would act as chairman. The Finance Committee strongly feels that an arrangement of this character would help tremendously in crystallizing all points of view, go far toward minimizing under-developed conclusions and give a much needed impetus to disposing of good intentions frequently carried over from year to year.

The committee trusts that each member of the Board may view the potential merits of such a proposal with favor.

ATTACHMENT #5

REPORT OF THE 1959-60 STANDING COMMITTEE ON PUBLICATION OF *Mosquito News*

1. The full membership of this Committee was not established until rather late in the year. However, the Chairman, and later the full Committee, was available to Editor D. L. Collins for consultation and assistance throughout the year. In one case referee assistance was requested and given by the Chairman.

2. It is sincerely believed that a publication of the high caliber and wide acceptance typical of *Mosquito News* should have an editorial board. It is only infrequently that the Editor has need to refer a problem to an advisory group, but when need arises for rejecting or modifying a controversial manuscript, such a board can

serve a valuable purpose. Furthermore, by establishing a board, of say five individuals, by Executive or Board of Directors appointment, the situation would not again arise of having several months elapse before a full Committee is available for service. Additionally, this would give members sufficient tenure to learn something of the duties which they are supposed to perform. Each member could serve a five year term with one old member leaving and one new member joining the editorial board each year. The Chairmanship could rotate each year to the oldest member in point of service. In order to represent all segments of the membership of the Association, the board could have the following membership: One member each from Federal Service (USDA, USPHS, and Military), from State Service (Experiment Stations, State Boards of Health), from industry, from abatement districts (county or smaller taxable units), and from the academic world. A copy of the Constitution of the American Mosquito Control Association is not at hand but it is presumed that the establishment of an editorial board would require a constitutional amendment. At any rate, such an agency should have constitutional recognition.

3. It has been pointed out by one of our members that the practice of turning in manuscripts at the annual meetings is, for several reasons, a poor one. With this, we concur and believe that it should be discontinued. For one thing, it is possible for a manuscript to get lost some place in the confusion of the meeting. Secondly, a procedure of accepting only mailed manuscripts might automatically eliminate certain papers that could just as well be left unpublished. Finally, such a change in procedure would relieve our editor of an unnecessary burden at annual meetings.

4. It is believed that the practice of publishing the date on which each paper is accepted for publication (such, as for example, is done by the Entomological Society of America) is a good practice.

5. *Recommendations.* It is recommended that:

a. Proceedings be initiated to establish an Editorial Board for *Mosquito News*. A suggested structure for such a board is presented in paragraph 2. At this point, it is desired to interject one word of caution. Although we believe strongly that a constitutionally-recognized editorial board is essential, such a board must always stand in a secondary position to the Editor. In other words, the board is his to use as much or as little as he desires. The Editorial Boards of the E.S.A. operate in this manner and are most successful. Furthermore, it is believed politic that the Editor should be consulted in the selection of members for the Board, since he is the one who must work with them.

b. The procedure of accepting manuscripts at the annual meetings be discontinued.

c. The procedure be adopted of publishing the date of acceptance of each manuscript.

6. It is desired to extend to the Editor and to his assistant editors our sincerest congratulations for the most excellent way in which they continue to fulfill their responsibilities. Due to their efforts, the Association has a publication of which we can all be proud in the fullest sense of the word.

Respectfully submitted,
 —RICHARD F. DARSIE, JR.
 RICHARD B. EADS
 HARRY D. PRATT
 ANDREW J. ROGERS
 E. CHESTER ROBINSON
 KENNETH L. KNIGHT,
Chairman

ATTACHMENT #4

EDITOR'S REPORT

Statistics on Volumes 18 and 19, *Mosquito News*

Issue	No. Printed		No. Pages		Cost *	
	Vol. 18	Vol. 19	Vol. 18	Vol. 19	Vol. 18	Vol. 19
March	1650	1650	68	64	\$1,774.43	\$1,591.77
June	1650	1650	152	112	3,278.85	2,284.34
September	1650	1650	104	100	2,260.16	2,226.06
December	1650	1700	92	96	2,301.91	2,259.00
Totals	6600	6650	416	373	\$9,615.35	\$8,361.17

* Cost of Vol. 18 includes postage; Vol. 19 was mailed under second class rate and postage is billed separately. Mailing charges for Vol. 19 amounted to \$194.46.

	No. Pages	
	Vol. 18	Vol. 19
Proceedings	103½	69
Articles	144½	131½
Operational and Scientific Notes	5½	9
Editorial	1½	3½
Association News	29½	25
News and Notes	17	15½
Reviews and Abstracts	6	4½
Bibliography	34½	35
Advertising	68	76
Miscellaneous	6	3
Total	416	372

Referring to the statistics on the several issues of each volume, it is pointed out that for the purpose of presenting the information from the editorial office, a consideration on the basis of the four issues of each volume is necessary. However, since the Treasurer's books are closed in December before the bills for the December number of each year are payable, the Treasurer has to consider the total cost of the last issue of one volume plus the first three issues of the next in his annual report.

The Editor considers only the actual cost of printing and mailing each number, in order to compare it with the contents of that number. The Treasurer, however, adds in also figures pertaining to the cost and sale of reprints which are billed by his office. For these reasons, the figures of the editor, which apply to a

given volume, and the figures of the Treasurer which apply to the business year of the Association, not only with respect to *Mosquito News* but with respect to other sources of income and expenditure, are not comparable except when considered issue by issue.

One large item pertaining to *Mosquito News*, included by the Treasurer, but not by the Editor, namely, the sale of reprints, during the last fiscal year amounted to \$1,179.36 according to the Treasurer's report. This figure is not included by the Editor since it is a business matter outside the actual cost of publishing *Mosquito News*, and is not handled by the editorial office. For instance, in the Treasurer's report the cost of reprints is included in the \$9,341.69 listed, but this figure does not appear in the Editor's report.

—D. L. Collins, *Editor*

ATTACHMENT #7

REPORT ON GOOD NEIGHBOR CLUB AS OF MARCH 30, 1960*

(following AMCA Meeting)

Bank Balance, March 15, 1960		\$401.31	
deposits March 30, 1960		95.00	
		<hr/>	
		\$496.31	
Receipts to date			
Good Neighbors sponsored:			
Paid to AMCA	3	\$ 15.00	
Paid to GNC	88	440.00	
Committed to GNC	27	135.00	
	<hr/>		
	118	\$590.00	
Expenditures			
Postage		\$35.00	
Good Neighbors of 1959		Total 120	
		— 11	
		<hr/>	
Paying own dues	7	109	Active for 1960
Deceased	1	12	New G.N.
Cancelled	3		
	<hr/>	121	Total
	11	118	paid for 1960
		<hr/>	
			3 lack sponsors

* Final figures calculated after the annual meeting.

—ERNESTINE THURMAN

ATTACHMENT #8

REPORT OF COMMITTEE ON SALE OF MISCELLANEOUS PUBLICATIONS

Financial Statement, December 31, 1959

CHECKING ACCOUNT

Balance as of January 1, 1959	\$377.83
Total Deposits for the year 1959	+245.74
	<hr/>
	\$623.57
Total Expenditures for the year 1959 (Postage)	33.00
	<hr/>
Balance as of December 31, 1959	\$590.57
Number of Bulletins sold in 1959:	
Nos. 1 and 2:	52
No. 3:	80

—C. T. WILLIAMSON,
Business Manager

ATTACHMENT #6

REPORT ON ADVERTISING IN *Mosquito News*

January 1, 1959 through December 31, 1959

The figures below represent transactions during the calendar year 1959, for advertising in four numbers, Volume 18, number 4, and Volume 19, numbers 1, 2 and 3. (December 1958 and March, June and September 1959).

Number of active accounts	35
Number of pages of advertising	80 $\frac{3}{4}$
Receipts	\$3,174.80

Expenses:	
Postage, telephone, telegrams	\$ 67.00
Printing, rate sheets, envelopes, letter-head	41.50
Honorarium for stenographer	10.00
	<hr/>
	\$118.50

Respectfully submitted,
—FRANCIS P. CREADON
Advertising Mgr.

ATTACHMENT #9

REPORT OF THE COMMITTEE ON MISCELLANEOUS PUBLICATIONS

The progress of Bulletin No. 4 dragged badly this past year, due to a number of reasons. At our meeting in Salt Lake City, it was agreed by the Committee members and the Board of Directors of the American Mosquito Control Association to give Bulletin No. 4 to Harold Gray for editing. We were unable to do this, due in part to the illness of Mr. Gray this past year, and due to the need for bringing up to date certain statistical information which had been acquired in 1952. Now it seems possible that within a short period of time—approximately three months—Bulletin No. 4 can be given to Mr. Gray for completion. It is anticipated that the statistical data will have

been received by the Committee Members within the next three months.

I respectfully request that consideration be given to the selection of a new chairman for this committee. I find the coming year will pose numerous problems of sufficient size to reduce my time available for committee work. With this in mind, I would like to suggest the possibility of selecting one of the present Committee Members to fulfill the Chairman's responsibilities. In view of Harold Gray's current residence, I would suggest possibly the selection of Mr. Mulhern. I am sure they are in close contact, and Mr. Mulhern is fully aware of the progress of Bulletin No. 4.

—H. R. GREENFIELD, *Chairman*

ATTACHMENT #10

REPORT OF MEMBERSHIP COMMITTEE

The 1959 season has been active and very encouraging to the American Mosquito Control Association membership committee. During the past year the Association has increased by approximately 60 new accounts. We have had 85 mem-

bership cancellations to offset some of the new memberships. The overall increase in membership was approximately 10 percent. The total of accounts is in the six-teen-hundreds for 1959.

The largest source of membership in-

crease came from the suggestion of our President, Archie Hess, that the membership committee contact a select group of pest control operators. Your membership chairman sent out letters to this group, as well as to other such groups, and invited them to become associated with the AMCA.

The large number of cancellations was caused mainly by a letter sent to the delinquent members and I asked for their cooperation and action on the delayed payment of dues. My letter was worded as diplomatically as possible and at the same time I did ask for their decision concerning the Association. In spite of this action there are still about 100 delinquent members being held over from the year 1959. I personally feel that this list should be published in the *Mosquito News* so that someone other than the membership committee can contact the individual if he so desires.

The alternate to this suggestion is that we drop these delinquent members as of June 1, 1960, or at least before the June issue of *Mosquito News* is mailed. It is to be remembered that we in the Association continue to send *Mosquito News* to the members who are delinquent in their dues, and the mailing alone is a very costly item. This has been a problem for a num-

ber of years and it may be embarrassing to some of the membership. However, the executive board does need a more direct course for action.

Some of us forget that each member of the AMCA is a representative of the membership committee. By that I mean, many of us meet people who are actively interested in mosquito control. We are obligated at least to invite all interested parties to be members of this outstanding organization. The \$5.00 for membership is one of the best investments that one can be offered. *Mosquito News* is a source of guidance for every mosquito control worker and it certainly gives him the opportunity to make contacts with other people interested in this activity and who may be in a position to help him in case of need. The Association is worthy of merit and all the backing that the membership can give it.

Delinquent dues create difficulties for the executives of our organization, especially the secretary and the treasurer. Therefore, each member of the Association is obligated to support these officers rather than to cause them unnecessary work.

—P. DUCE BROCKWAY, JR.
Chairman

ATTACHMENT #11

REPORT OF COMMITTEE ON PUBLIC RELATIONS

EXHIBIT: The AMCA Exhibit has had a fairly busy year. Last April it was on display at our annual American Mosquito Control Association meeting in Salt Lake City. From there it went to the Moses Lake Mosquito Abatement District in Washington. In early December it was shown at the Entomological Meeting at Detroit. It is here at this meeting in Boston.

It is scheduled to go to Virginia where it will be repaired, if needed, and shown. It will be shown at the Florida mosquito

meetings at Tampa April 25-27. Through the special efforts of Committee member W. P. Warner, the exhibit will be shown at the Silver Anniversary Conference of the National Association of County Officials at Miami Beach, Florida August 14-17, 1960. An inquiry was received from Panama requesting a loan of the exhibit by the Health Bureau, Canal Zone Government; however, for some reason this did not work out. From all reports it has been favorably received wherever shown.

This exhibit could be shown much more extensively if cost of transportation were available. It has been suggested that perhaps some commercial company might be interested in underwriting such an expense. It is suggested that the President announce at this meeting that any mosquito control organization can obtain the exhibit for showing and that they will have to agree to pay shipping cost, arrange for storage until called for, and agree to ship to the next user.

ANTI-INSECTICIDE PUBLICITY: Your Committee members have corresponded regarding the adverse effect that some publicity pertaining to the use of insecticides has had on mosquito control activities. It has been suggested that an article be prepared for a popular magazine, such as *Reader's Digest*. Another suggestion has been made that a special pamphlet be published under the name of the American Mosquito Control Association and that this be made available to the mosquito control organizations on an actual cost basis. It is recommended to the incoming officers that arrangements be made for financing such an undertaking and that a special committee be appointed to write the material for the pamphlet and a popular magazine article.

SERIES OF ARTICLES: It has been further suggested that a series of articles be prepared on the merits of mosquito control which could be used in Sunday paper magazine sections or for other newspaper releases.

BETTER PUBLIC RELATIONS WITH MANU-

FACTURERS: It was felt by your Committee that an effort should be made to improve the relationship between mosquito control organizations and supplying manufacturers. This would be considerably improved by affording them more time to demonstrate at annual meetings without competition from other parts of the program. Likewise, it seems desirable to have them take part in the formal program. This has been done to a limited extent and your Committee feels that the impetus should not be lost, but extended further.

MORE PRACTICAL PAPERS AND ARTICLES: Your Committee feels that more practical papers at the annual meeting and more operational articles in *Mosquito News* are needed. There is evidence that some districts have stopped sending representatives to the American Mosquito Control Association meeting for the above reason. Inasmuch as operational papers are not generally submitted, your Committee recommends that invitational articles on suitable subjects be solicited, even offering assistance in preparation if this is feasible.

Respectfully submitted:

—WILLIAM S. MURRAY
DONALD C. GRANT
GEORGE A. THOMPSON
WILLIAM P. WARNER
CHARLES M. WHITE
FRANKLIN C. WRAY
ARCHIBALD F. CUMMINGS
EARLE POTTER
R. E. DORER, *Chairman*

ATTACHMENT #12

REPORT OF NATIONAL ADVISER

(Following is a press release which will serve as the report):

A National Mosquito Control-Fish and Wildlife Management Coordination Committee was organized today for the purpose of establishing objectives and considering general methods by which each field of

public service might complement the other in the execution of their respective programs.

Elected to office were: Robert L. Vannote, Chairman, who is National Adviser of the American Mosquito Control Association and Secretary of the Morris

County (N. J.) Mosquito Extermination Commission, and Paul F. Springer, Secretary, who is Chief, Section of Wetland Wildlife Ecology and Management, Patuxent Wildlife Research Center, Bureau of Sport Fisheries and Wildlife, Laurel, Maryland. Other members of the Committee are: Dr. Ira N. Gabrielson, President of the Wildlife Management Institute; Dr. A. W. Lindquist, Chief, Insects Affecting Man and Animals Research Branch, U. S. Department of Agriculture, Beltsville, Maryland; Mr. K. D. Quarterman, Chief, Technical Development Laboratories, U. S. Public Health Service, Communicable Disease Center, Savannah, Georgia; and Mr. E. A. Seaman, Advisor on Fish and Wildlife Conservation, Office of the Provost Marshal, U. S. Air Force, and Secretary-Treasurer of the American Fisheries Society.

The objectives of the Committee were established as follows:

1. Coordinate mosquito control and fish and wildlife management policies on national, state and local levels.

2. Gather and disseminate relevant information and suggest standards on mosquito control techniques consistent with sound fish and wildlife management objectives.

3. Gather and disseminate relevant information and suggest standards on fish and wildlife management techniques consistent with sound mosquito control objectives.

4. Stimulate needed research and demonstration projects relating to mosquito control and fish and wildlife management practices.

5. Sponsor suitable meetings to further the purposes of this Committee.

6. Cooperate with agencies, organizations, and all others whose activities and interests may relate to those of this Committee.

The Committee will welcome suggestions on problems relating to the coordination of the two interests and has dedicated itself to the impartial examination of specific cases brought to its attention.

—R. L. VANNOTE, *National Adviser*

ATTACHMENT #13

REPORT OF RESEARCH AND DEVELOPMENT COMMITTEE FOR 1959

Last year the Committee, after canvassing mosquito control workers, suggested areas in which research was needed. The present report attempts a statement of the work that has been carried out in these areas, in the hope that it can thus be informative along lines of current importance. The committee members canvassed many organizations conducting developmental research, but these are not mentioned by name in the text, which follows as closely as possible the format of the 1958 report.

CONTROL OF *Culex*. No organizations are developing special control measures for *C. pipiens* and *C. quinquefasciatus*, since they are not disease vectors; yet they are the problem which is steadily intensifying around the expanding urban

areas, and which Abatement Districts are expected to combat. Control measures are at present adapted from those developed for irrigation or floodwater species and for *C. tarsalis*.

It is generally considered (but not proved) that certain insecticides are largely inactivated in polluted waters because of adsorption; however others consider that DDT is taken by the larvae as an oral dose. The fact remains that DDT is an unsatisfactory culicide in polluted waters, in that it requires a high dosage to be effective. BHC and dieldrin are effective, sometimes for the season; there is a danger of developing resistance to these compounds, which so far has been limited to *C. quinquefasciatus*. Organophosphorus insecticides are effective in polluted waters,

DDVP and Phosdrin for a short time, EPN and malathion for a longer, and Diazinon, Guthion, Ronnel and Thimet being quite persistent. Malathion granules may be effective where sprays are not. DDVP is ovicidal, and Thiodan kills pupae. Malariols, diesel oils and unrefined fuel oils are effective but have not lately been a subject of developmental research.

There is no information on developments in the design of storm sewers to prevent *Culex* breeding. Biting habits of such *Culex* have not been recently investigated, although the autogenous *molestus* is known to occur. Recently, autogenous populations of *C. tarsalis* have been found and the biting habits of this species, particularly on birds, have been extensively reported. Hibernation sites of *C. tarsalis* have been discovered in loose rock talus in northwest U.S.A.

The reduction of weeds, rather than encouraging *Culex* breeding, is an essential element in *Culex* control, at least for *tarsalis*. The use of top-minnows (*Gambusia*) has been found to be economic in small breeding pools, provided vegetation covers less than half of their area.

CONTROL OF FLOODWATER MOSQUITOES. Concern for economy in area treated has led to investigation of flight patterns of the adult broods. It appears that *A. nigromaculis* in California does not show the movement characteristic of *A. taeniorhynchus* and *A. sollicitans* in Florida. *A. vexans* and other species breeding on the Alberta prairies have been found to descend into the river valleys and move along them, so that barrier sprays across the valley can protect a city therein.

Development of pre-hatching treatments in southeastern U.S.A. has shown that DDT at 1 lb./acre offers protection for the season, while the effect of dieldrin at 1 lb./acre can extend for 4 seasons.

In an attempt to find agents that will destroy eggs without leaving toxic residues, and exploiting the fact that reduced oxygen content is a hatching stimulus, experiments are being made in California with respiratory poisons as ovicides.

IRRIGATION MOSQUITO PROBLEMS. Rea-

sons are being sought for the fact that no two fields are alike in breeding mosquitoes. One basic principle, it is now considered, is that the highly productive fields are those in which water stands for a period long enough to allow completion of pre-adult development. The factors determining production have been characterized in Utah. Work on the western prairies of U.S.A. has shown that *A. nigromaculis* is characteristic of irrigated fields, *A. melanomon* of ditches and sloughs, while *A. dorsalis* can develop in alkaline seepage areas. The best land practice known at present to prevent breeding is to level the field and install efficient drainage systems.

Development of insecticides to be added to the irrigation water as it is supplied is a matter mainly of cost; the present insecticides are too expensive to allow treatment of the large amounts of water involved to be economic. Residual insecticides for pre-flood treatment of fields at present include heptachlor and dieldrin, which have been tested in Colorado and Oregon. Control for the season, in the absence of resistance, may be obtained by heptachlor at 0.5 lb./acre and dieldrin at 0.25 lb./acre, from granules or emulsions. An application of dieldrin at 1 lb./acre gives control for 2 seasons, becoming unsatisfactory for the third season. However, residue regulations do not allow the use of these chlorinated hydrocarbons on pasture or haylands, leaving malathion as the insecticide of choice.

At their present stage of development, granular formulations are about as effective as sprays. In California, parathion granules have been found successful and malathion granules promising; however in Oregon malathion granules failed where heptachlor succeeded. Information has been obtained on the rate of release of parathion from granules and of its adsorption onto the soil. Clay formulations release insecticide very slowly, and thus the development of sand cores may prevent the loss occasioned by retention on the granules. Paris green granules on vermiculite have proved successful in Florida, particularly against the increasing *Psoro-*

phora problem. For application of these granules, the 'Swathmaster' has proved the best applicator to appear so far.

RESISTANT MOSQUITOES. Recent developments have done much to answer the questions in the 1958 report, as follows:

1. The mode of action of all present organic insecticides is by poisoning nervous activity. The chlorinated hydrocarbons affect the action potentials of nerve, the mechanism being unknown for BHC and dieldrin, although it has recently become clearer in the case of DDT. The organophosphorus insecticides are oxidized in the body to enzymes that inhibit the nerve enzyme cholinesterase. Carbamate compounds such as Sevin are also anti-cholinesterases.

2. Mechanisms of resistance are now divided into 3 groups: DDT-resistance, dieldrin-resistance and OP-resistance. DDT-resistance in mosquitoes sometimes is associated with increased DDE production, as in houseflies. Nothing is known of the mechanism of resistance to dieldrin or BHC. OP-resistance may be due to increased detoxification of the oxidized toxicant, as in houseflies. Increased lipid has been found in some resistant strains but not in others.

3. DMC, which interferes with DDT-detoxification, was not sufficiently synergistic with DDT for resistant *A. aegypti*, and no synergized mixtures are now used in mosquito control. Of the negatively correlated compounds which could theoretically reverse resistance, CBA is not negatively correlated for *Aedes*, and PTU is not sufficiently toxic.

4. The genetics of resistance is being thoroughly studied in mosquitoes. DDT-resistance in 3 species, and dieldrin-resistance in 1 species, has been found referable to a single gene allele. Genetical technique is being applied to estimate gain and loss of resistance, and to differentiate between true resistance and vigor tolerance.

5. As a new type of control technique, sterile males of *An. quadrimaculatus* have been released; it was found that very large numbers are required for an effect. This method is now being tested for *Ae.*

aegypti. Using chemicals in a new way, it has been found that certain halogenated carbinols reduce the egg production of *A. aegypti* as well as of house flies. The most promising compounds against resistant *C. tarsalis* larvae found this year are Bayer 29493 and Geigy 30494. The reintroduction of paris green as a larvicide is promising because it has no record of inducing resistance in the past.

7. The role of pathogenic organisms in insect control has recently been reviewed in a special conference at Washington. The unicellular fungus *Coelomomyces* is being tested for *Aedes* control on a western Pacific island. The use of the blue-green alga *Anabaena*, which produces a toxin for mosquitoes but not for higher animals, was found promising in California, but subsequent tests in Utah showed that mosquito larvae could complete their development before the toxin accumulated, there being no carryover from one year to the next.

EFFECT OF INSECTICIDES ON FISH AND WILDLIFE. A recent symposium on co-ordination of mosquito control and wildlife management, and a conference of entomologists with the Conservation Foundation, have done much to bridge an estrangement between the two groups. Fish and wildlife interests are more frequently participating in the planning of mosquito abatement operations. The 3 points raised under this heading in the 1958 report may be covered as follows:

1. DDT at 0.1 lb./acre has been found not to affect the numbers of animals and birds, and the reduction in crustacea such as crabs and shrimps is only temporary. DDT at 0.2 lb./acre sometimes involves mortality of fish, roughly equivalent side-effects being given by repeated doses of 0.1 lb./acre. The Fish and Wildlife Service recommended that the 0.2 lb./acre dose be restricted to single treatments. It is realized that secondary accumulations due to wind action on deposits may cause spot mortalities of fish or other vertebrates.

2. Apart from the observation that 100 p.p.m. of DDT in the diet reduced the egg fertility and increased the nestling

mortality of quail, nothing is yet known about the effect of DDT and other insecticides on the reproductive rate of birds in the area treated.

3. Development of new insecticides is mainly in the organophosphorus group. Although malathion is considered to be slightly more toxic to fish than DDT, there is great variation in response between different species. The USPHS laboratory at Cincinnati is assessing the toxicity of new compounds to fish, and is concerned

with the accumulation of insecticides from run-off into rivers. Paris green granules may well be one of the insecticides with the least side-effects on wildlife.

Respectfully submitted,

—A. W. A. BROWN, *Chairman*

W. R. BUNN

W. R. HORSFALL

K. L. KNIGHT

M. W. PROVOST

K. D. QUARTERMAN

G. E. SMITH

ATTACHMENT #14

REPORT OF COMMITTEE ON LEGISLATION

The Legislative Committee of the AMCA, composed of representatives from each of the geographic regions, wishes to report that no requests have been received for Federal legislation regarding mosquito abatement with the exception of a continuing request that the districts be allowed to purchase Government surplus property without coming under the jurisdiction of Civil Defense.

Respectfully submitted,

—E. CHESTER ROBINSON,
Chairman

F. P. CREADON

C. T. WILLIAMSON

DR. PAUL R. MEYER

LAVERNE MILLER

J. A. MULRENNAN

ROWLAND E. DORER

ATTACHMENT #15

REPORT OF THE RESOLUTIONS COMMITTEE

RESOLUTION NO. 1

WHEREAS, the general assemblage at this sixteenth Annual Meeting of the American Mosquito Control Association held in conjunction with the Northeastern Mosquito Control Association in the City of Boston, has found these sessions, facilities and arrangements to be of enjoyable and of excellent nature,

NOW THEREFORE BE IT RESOLVED that we herewith offer expression of our appreciation and gratitude to Dr. William E. Bickley and members of this Program Committee for the schedule of interesting and informative presentations,

The Northeastern Mosquito Control Association as host for these meetings,

Robert L. Armstrong, General Chairman of the Arrangements Committee and his many fellow workers for the very considerable effort, organization and efficiency exhibited in the preparation and conduction of these meetings,

The Somerset Hotel for provision of these enjoyable facilities and attendant operations,

The many commercial exhibitors and members in attendance at these meetings for their meritorious displays, participation and contributions, with special appreciation of additional hospitality and constructive aid rendered to these Associations,

And the many speakers and participants who through their presentations and

efforts have so capably provided such merit and knowledge and understanding towards the advancement of mosquito control throughout the world.

RESOLUTION No. 2

WHEREAS the dosages of insecticide used in mosquito control are very much less than those used in forest or for crop protection, and have been shown by recent wildlife studies to be thus far entirely without deleterious or harmful effect on the abundance of birds and mammals, and almost invariably without effect on fish;

WHEREAS there has recently been an extensive exchange of information between mosquito control and fish-and-wildlife experts at two national conferences, there is an increasing trend for fish-and-wildlife

experts to be consultants in the planning of mosquito control activities wherever concerned, and there has been formed a National Committee for the Coordination of Mosquito Control with Fish and Wildlife Management, as a continuing safeguard;

RESOLVED that the American Mosquito Control Association make it known that it repudiates any suggestion that mosquito control, as carried on by approved methods, jeopardizes the interest of the public by sacrificing, or destroying fish and wildlife of value.

Respectfully submitted:

—ROBERT L. ARMSTRONG
A. W. LINDQUIST
C. DONALD GRANT,
Chairman

ATTACHMENT #16

AMERICAN MOSQUITO CONTROL ASSOCIATION, INC. COMMITTEE CHAIRMAN AND SUGGESTED COMMITTEE APPOINTMENTS FOR 1960 FOR ACTION MARCH 30, 1960

Editorial Staff, Mosquito News: Editor: Donald L. Collins; Miss Helen Sollers, Mrs. Helen Louise Durkee, William C. McDuffie, Austin Morrill, Jr.

Business Mgr. Miscellaneous Publications: C. T. Williamson

Editorial Board (Standing Committee) on Publication of Mosquito News: Chairman: Kenneth L. Knight; Richard Darsie, Jr., Richard B. Eads, Harry D. Pratt, Richard Peters, Andrew Rogers

Standing Committee on Legislation: Chairman: E. Chester Robinson; *Vice-Chairman:* Rowland E. Dorer; F. P. Creadon, C. T. Williamson, Paul Meyer, J. A. Mulrennan, Glen Collett

Standing Committee on Research and Development: Chairman: A. W. A. Brown; R. W. Bunn, Maurice Provost, William R. Horsfall, Lyle E. Haggmann, C. M. Gjullin, Gordon E. Smith, John W. H. Rehn, Kenneth D. Quarterman

Standing Committee on Finance: Chairman: Charles F. Scheel, and subcommittee from President's Advisory Committee including certain present and past officers as Policy and Finance Council

Standing Committee on Bylaws: Chairman: J. A. Mulrennan; Richard F. Peters, Bailey B. Pepper, Robert Armstrong, C. M. Gjullin, K. D. Quarterman, John Hughes

Standing Committee on Public Relations: Chairman: Rowland E. Dorer; *Vice-Chairman:* William P. Warner, C. Donald Grant, Earle D. Potter, William S. Murray, Franklin C. Wray, Frank J. von Zuben

Standing Committee on Membership: Chairman: P. Bruce Brockway; *Co-Chairman:* A. W. Buzicky, and all Regional Directors

Standing Committee on Miscellaneous Publications: Chairman: C. Donald Grant; Hugo Jamnback, T. D. Mulhern, Harry D. Pratt, Carroll N. Smith, Franklin C. Wray

Committee on Sale of Advertising Space: Chairman-Manager: Francis P. Creadon and members of certain committees

Nominating Committees: Chairman: A. D. Hess; Robert Armstrong, Robert Ostergaard, Gordon Smith, William Cox, Kenneth Quarterman, Carroll N. Smith, William Rapp, Franklin Wray, Don M. Rees, Robert Harwood, Chester Robinson, Gardner McFarland, Thomas Aitken, John McClintock, Patrick Nakagawa, John M. Hirst

Committee on International Exchange and Good Neighbor Club: Chairman: Ernestine B. Thurman; A. W. A. Brown, Don Pletsch, Donald Johnson, Eugene Gerberg—and suggested Associates

National Advisor: Robert L. Vannote
President's Advisory Committee, including Sub-
committee on Policy and Finance: Chairman:
 Robert L. Vannote; Arthur Lindquist, Fred H.

Stutz, Richard Peters, Rowland E. Dorer, Fred
 C. Bishopp, C. R. Twinn, Don M. Rees, Lester
 W. Smith, Harold F. Gray, M. D. Peters, Harry
 H. Stage, C. T. Williamson

ATTACHMENT #17

REPORT OF SPECIAL COMMITTEE TO CONSIDER CONSOLIDATION OF BUSINESS ACTIVITIES

The bylaws state that the President shall have the usual responsibilities and powers of supervision and management, such as pertain to his office and such other powers as specified in the bylaws or properly assigned by the Board.

The Executive-Secretary is empowered, among other duties, to coordinate the objectives, policies, responsibilities and services of the Association.

The Board of Directors is empowered to "prescribe policies governing the activities and functions of the Association."

Therefore, in an effort to consolidate several of the administrative functions of the Association which will result in more effective and efficient service to our membership and in concurrence with the advice and approval of the Executive-Secretary, your President recommends the following transfers of function for Board approval:

1. That as soon as practical the library, now located in Barnegat, New Jersey, be transported to the Executive-Secretary's office and that the duties now performed by Walter Henderson be assumed by the Executive-Secretary immediately on completion of the transfer of the property. The

Editor of *Mosquito News* is requested to make a suitable announcement giving the date the Executive-Secretary will assume these library duties.

This recommendation is made to improve and centralize the operation of this function and in no way discredits its current administration.

2. That as soon as practical the surplus supplies of Association bulletins and other publications be transported to the Executive-Secretary's office for sale and distribution. This recommendation is made with the approval of the Business Manager and is designed to improve and centralize the administration.

3. That the clerical services of the Good Neighbor Club be administered by the Executive-Secretary under the direction of the Chairman of the Good Neighbor Committee.

This recommendation has been endorsed by the Chairman of the Good Neighbor Committee and is designed to centralize the clerical and administrative function of this activity in the Executive-Secretary's office.

VIRGINIA MOSQUITO CONTROL ASSN.

5721 Sellger Drive, Norfolk 2, Virginia

George C. Lyon, Ocean Park, President

Jack E. Dent, Norfolk, First Vice President

Philip P. Davis, So. Norfolk, Second Vice President

C. E. Johnson, Hampton, Third Vice President

R. E. Dorer, Norfolk, Secretary-Treasurer