

## ASSOCIATION NEWS

### THE AMERICAN MOSQUITO CONTROL ASSOCIATION FIELD TRIP TO THE WASHINGTON, D. C., AREA

HELEN LOUISE TREMBLEY

National Institute of Health, U. S. Public Health Service, Bethesda, Md.

The American Mosquito Control Association met at Washington, D. C., November 20 and 21, 1945, for an inspection trip in that area.

Mr. Perry W. Ruth, President of the Association, and members assembled at 1 P.M. November 20, in the offices of Doctor F. C. Bishopp, Chairman of the Arrangements Committee. At this time, each member was furnished a mimeographed itinerary of the field trip, a prospectus of projects, and an identification tag, and was then assigned to a car for the tour.

Shortly thereafter, the party, in ten automobiles, proceeded through Rock Creek Park and across the city to the Rockville Pike in Maryland, where the first stop was made at 2:15 at the Naval Medical Center in Bethesda. Here the party formed two groups, each in turn, visiting the Naval Medical School and the Naval Medical Research Institute.

Captain Clyde L. Bozarth, M.C., U.S.N., Executive Officer of the Naval Medical School, welcomed the group aboard, and Lieutenant Commander William J. Perry, H(S), U.S.N.R., gave the members an illustrated talk on health problems and malaria control activities as met by the armed forces in the Pacific war areas. At the conclusion, an exhibit was held, demonstrating material covered in medical entomology classes and malariology in the Naval Medical School, and a few of the available insecticides used overseas were demonstrated.

Meanwhile, the members visiting the Research Institute, were greeted by Captain E. G. Haakansson, M.C., U.S.N., Medical Officer in Command. Lieutenant (j.g.) L. A. Jachowski, H(S), U.S.N.R., in charge of entomology, conducted the

visitors through the insectary and testing rooms, and explained that the colonies of *Anopheles quadrimaculatus* and *Aedes aegypti* were being maintained for malaria transmission, and *Musca domestica* and *Blattella germanica* for insecticide investigations. He said also that studies at the Institute have included long-term investigations on mosquito repellents, which yielded (1) a standardized testing procedure, and (2) a number of excellent mosquito repellents.

At about 4 P.M. the party left for the National Institute of Health, U. S. Public Health Service, located just across the road from the Naval Medical Center. Here they visited the Malaria Drug Testing Laboratory, Doctor G. Robert Coatney in Charge. This laboratory since 1941 has participated in a co-ordinated search for better anti-malarial drugs. Large-scale screening tests in chicks are conducted in Bethesda, and promising drugs are used elsewhere in trials on experimentally infected humans. Doctor Coatney and Doctor W. Clark Cooper, Senior Assistant Surgeon, discussed the project informally and explained charts showing typical infections and drug responses in both chick and human malarias. Routine preparation and administration of drugs to chicks were demonstrated by the laboratory staff. In the insectary, *Aedes aegypti* mosquitoes are raised primarily for the transmission of *Plasmodium gallinaceum*, a bird malaria, and colonies of *Aedes atropalpus* and *Anopheles quadrimaculatus* are maintained for transmission and other experimental projects. Helen Louise Trembley discussed rearing procedures briefly, and explained methods of mosquito, sporozoite, infection and transmission.

The group left by auto at approximately

5:30 P.M. for dinner at Hayden Farms, Silver Spring, Maryland, stopping en route for an hour of cocktails and informal discussion. At Hayden Farms, the party was augmented by a number of men from local control groups, and dinner at 8 o'clock furnished excellent food which added to the enthusiasm and good-fellowship already prevailing. After dinner, President Perry W. Ruth welcomed members and guests of the American Mosquito Control Association, and graciously expressed his appreciation of the efforts of the Committee on Arrangements: Doctor F. C. Bishopp, Chairman; Mr. H. H. Stage, Major H. L. Felton, and Miss H. L. Trembley.

Four phases of mosquito control work were included in the evening's program; speakers and topics follow:

Col. Paul F. Russell, Chief of Division of Parasitology, Army Medical Center. "Malaria and Its Control in Liberated Italy in 1944."

Dr. Newell E. Good, U. S. Public Health Service. "Mosquito Surveys and Inspections in the D. C. Area."

Lt. J. M. Hutzler, Insect Pest Control Section, Bureau of Medicine and Surgery, U. S. Navy. "Entomological Activities in the Marine Division."

Mr. H. H. Stage, Asst. Chief, Division of Insects Affecting Man and Animals, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture. "Control of Anopheles Mosquitoes by Residual Sprays."

A very short period of comment and discussion on the papers was followed by adjournment of the evening's session at 11 P.M.

Wednesday morning, November 21, at 8:30, the automobile party left the Willard Hotel in downtown Washington for the Agricultural Research Center at Beltsville, Maryland.

The air was cold, but there was little wind, so the first stop was made at the airfield. Here a White Standard Plane with spinner disc attachment was viewed.

The pilot explained the mechanism of airplane application of insecticides, and demonstrated by a trip testing procedures, including methods of studying swath-width, particle size, particle distribution, and effects of atmospheric conditions.

Laboratory inspections were scheduled to begin at 10 A.M., and the party divided into three groups, the first visiting the Division of Insecticide Investigations under Doctors R. C. Roark and H. L. Haller. Chemical investigations on DDT were demonstrated and explained briefly by the staff: chemical and physical properties of DDT, by S. J. Cristol; DDT formulations, by E. E. Fleck; analytical investigations of DDT insecticides and of DDT deposits on vegetation, R. H. Carter; and analytical investigations of DDT in minute amounts by the colorimetric method, M. S. Schecter. The chemistry of pyrethrum was discussed by Dr. F. B. LaForge in his laboratory, where a method for the preparation of purified pyrethrins has been developed, so that odorless non-irritating pyrethrum sprays can be made. The purified pyrethrins are also well-suited for use in aerosols. Liquefied gas aerosols were explained and some demonstrated by Dr. L. D. Goodhue. The object of his work is the development of improved aerosol formulas and equipment for the control of insect pests.

Meanwhile, the second group of Association members was visiting the Division of Control Investigations, Dr. C. P. Clausen, in Charge. Biological evaluation of insecticides and fabric resistance to mosquitoes is carried on under the direction of Dr. E. R. McGovern, who briefly discussed the project. New materials, improved formulations of known insecticides, new methods of applying insecticides, etc., are tested on insects, and the more promising discoveries are forwarded to other Divisions for thorough tests under practical conditions. Demonstrations and short talks were given as follows:

Mosquito rearing—Mrs. A. H. Casanges

Housefly rearing—Mrs. S. J. Beahm

Turntable spray tests—W. A. Gersdorff

Peet-Grady Chamber tests—J. H. Fales  
Residual tests and roach tests—P. G.  
Piquett

The testing of fabrics for resistance to mosquito bites, under the supervision of Mrs. M. F. Schott, was of much interest. The object of these tests is to determine which fabrics used in the uniforms of the armed forces of the United States will provide the most protection against mosquito bites.

A third group of members, during this time, was inspecting the laboratories of Mr. Randall Latta, where thermal aerosol investigations are underway. Smoke aerosols are produced by heating a solution of the insecticide in oil in a generator adapted from machines used for military screening smokes. Drifting aerosol "clouds" in many cases give a high percentage of kill over a considerable

area. A wind tunnel is used to study insecticidal efficiency so that exact comparisons can be made relative to particle size, rate of air movement, and formulation of the insecticide.

Rotation of the three visiting groups was arranged so that everyone had inspected all of the laboratories by 1 P.M., the time scheduled for lunch at the Log Cabin, which is the Research Center's cafeteria. At the conclusion of this meal, a few words were spoken by several members including a short farewell by President Ruth. Adjournment followed.

Excellent weather and a general spirit of friendliness and co-operation contributed much to the success of the meetings, and "Tommy" Mulhern's patience and industry with his camera has furnished a photographic record as evidence of the work and pleasure experienced by all.