

made if malaria is not to take us by surprise; (2) Suppression of the breeding of dangerous anopheline species by the destruction of the larvae where their presence has been revealed by the surveys should be the main dependence for preventing the establishment and spread of the introduced infection; (3) As supplementary measures for protection against infected *Anopheles*, the effective screening of houses and the spray-killing of adult mosquitoes should be instituted and popularized through propaganda.

Finally, the need for a master plan for the eradication of malaria or its vectors or both, is stressed.

11. A Program for the Eradication of Malaria from Continental United States. By Assistant Surgeon General J. W. Mountin, U. S. Public Health Service. As a climax to the Symposium, Dr. Mountin proposed a bold plan, originally advanced by Dr. L. L. Williams, Jr. of the Public Health Service, for the eradication of malaria from continental United States as an aggressive answer to the problem of returning malaria carriers. It is pointed out that malaria has reached the lowest ebb in history and the cyclic upswing which previous experience had taught us to expect in 1941-42 failed to materialize.

It is not proposed to eradicate malaria vectors, but only to reduce anopheline densities below the point where transmission is likely to occur or to institute protective measures against the bites of infected mosquitoes in the permanently endemic malarious areas of the country.

Forty-two counties in the United States from 1938 to 1942 had an annual average mortality rate of over 20 per 100,000 population. The average estimated expenditure per county per year is \$125,000 and it is felt that three years would be an adequate trial period. Such an undertaking would require the fullest cooperation of Federal, State and local agencies. Dr. Mountin asks that serious consideration be given this proposal, keeping in mind that such a favorable opportunity for the eradication of malaria may not occur again for a generation.

CALIFORNIA MOSQUITO CONTROL ASSOCIATION CONFERENCE

By HAROLD F. GRAY

The California Mosquito Control Association held a very successful two-day conference at the University of California, Berkeley, on February 28-29, 1944. There was a total attendance of about 180, of which more than one-half were officers in the Army and Navy.

The high lights of the meeting were the papers and discussions presented by Sanitary Engineer Nelson H. Rector, U. S. Public Health Service, Office of Malaria Control in War Areas, at Atlanta, Georgia, and by Senior Entomologist Harry H. Stage, U. S. Bureau of Entomology and Plant Quarantine, Washington, D. C. Mr. Rector presented a paper on "The use of ditch lining, underground drains and sanitary fills for malaria and mosquito control," illustrated by lantern slides.

Mr. Stage presented a paper on "Mosquito repellents and their uses," which was illustrated by projected kodacrome photographs; a brief discussion on new larvicidal materials, and a discussion on the proposed reorganization, on a national scale, of the Eastern Association of Mosquito Control Workers.

"The *Aedes aegypti* program of the U. S. Public Health Service," a paper prepared by Asst. San. Engr. Harvey F. Ludwig, U. S. Public Health Service, Atlanta, Georgia, was read by P. A. Sanitarian W. C. Frohne, U.S.P.H.S., San Francisco. This paper was illustrated by an excellent motion picture film prepared by the Service, and by slides.

A symposium on diseases transmitted by mosquitoes in the Pacific area (malaria, dengue, filariasis and encephalitis) provoked considerable discussion, as did the symposium on mosquito control problems in the South Pacific area.

An interesting feature of the meeting was the Question Box and Panel Discussion held on Monday evening. The panel which answered questions consisted of Prof. W. B. Herms, Chairman; Lt. Cmdr. Dwight L. Wilbur, M.C., U.S.N.R.; H. H. Stage; Prof. Don M. Rees; W. C. Reeves; Nelson H. Rector; Harold F. Gray; M. E. Stewart.

A large part of the final afternoon was given over to laboratory demonstrations of various important mosquitoes, and the demonstration of various materials and equipment.

AN ANNOTATED LIST OF THE MOSQUITOES OF VIRGINIA

By

R. E. DORER, W. E. BICKLEY AND H. P. NICHOLSON
U.S.P.H.S., Malaria Control in War Areas

Observations on the mosquito fauna of Virginia have largely been made in the southeastern part of the State primarily because such studies usually are associated with control work. Now, as well as in the past decade, mosquito control of all types has been concentrated in the Hampton Roads area. Recently the water chestnut areas of the Potomac in which *A. quadrimaculatus* breeds so abundantly have had the attention of Malaria Control in War Areas authorities.

The following list has been compiled from records obtained from all likely sources within the State, but the number of records in the above areas constitutes well over 90% of the total. This fact should be considered with reference to statements as to species distribution.

Aedes:

- A. aegypti* (L.). Common in Southeast.
- A. atlanticus* D. & K. Fairly common.
- A. canadensis* (Theob.). Fairly common.
- A. cantator* (Coq.). Rare. Larvae found at Camp Peary (C. K. Dorsey); other records probably exist but have not been verified.
- A. dupreei* (Coq.). Rare. Lake Drummond, Aug. 19, 1935. Alan Stone. Also reported from Camp Peary.
- A. fulvus pallens* Ross. Rare. Single female from light trap, Camp Peary.
- A. bimaculatus* of authors. Pendleton, June 21, 1943. H. P. Nicholson.
- A. mitchellae* (Dyar). Rare in traps in Hampton Roads area. First taken as larvae, 1942. Fairly common in larval collections.
- A. sollicitans* (Walk). Very common in coastal and bay areas; a predominating pest. Taken occasionally in traps at Fort Belvoir.
- A. sticticus* (Meig.). Rare. Woodstock, Feb. 6, 1903. F. C. Pratt, U. S. N. M. det. by H. G. Dyar.
- A. taeniorhynchus* (Wied). Very common in coastal and bay areas; a predominating pest. Taken occasionally in traps at Fort Belvoir.
- A. triseriatus* (Say). Fairly common in some localities.
- A. trivittatus* (Coq.). Rare. Schoolfield, Pittsylvania Co., July 9, 1943. H. P. Nicholson. Waynesboro, Aug. 7, 1943. W. E. Bickley. Probably occurs in Southeast.
- A. vexans* (Meig.). Common and widely distributed.