

NEWS AND NOTES

FROM SOUTH AMERICA. A letter from Dr. L. W. Hackett, Director for the Rio de la Plata and Andean Regions, The Rockefeller Foundation, International Health Division, Buenos Aires, Argentina, contains the following interesting paragraphs:

"I appreciate your desire for entomological news from this region, and I will be glad to help you to get it; but I have personally abandoned the field of malaria and am engaged in administrative work in general public health . . .

"The Rockefeller Foundation is aiding Bolivia, Peru and Ecuador in mosquito control projects, and perhaps I can get our staff members in those countries to send you a short account of the interesting work they are doing.

"In Bolivia the principal agricultural region is in the foothills of the Andes, and Dr. Henry Carr has accomplished the complete elimination of malaria in a typical area, entirely through the installation of automatic siphons in the streams which are greatly reduced during the dry season. In this area *A. pseudopunctipennis* is the only vector and this species breeds almost entirely in the beds and along the margins of streams.

"In Peru the coastal zone, west of the Andes, is principally desert, crossed by about 50 rivers arising in the snow capped mountains. These river valleys are separated from one another sufficiently to prevent mosquitoes flying from one to the other. This turns each valley into a biological island in which living things, with the exception of birds, cannot leave or enter without the aid of man. We are attempting the total eradication of anopheline species from one of these valleys just south of Lima. Breeding of *A. pseudopunctipennis* takes place from the sea up to an altitude of almost 8000 ft., which covers a stretch of about 50 miles of river. The application of paris green and a certain amount of small open drainage has now reduced our adult anophelines practically to zero, although we found one small larval focus in the lower valley in December. We are optimistic about the possibilities of anopheline eradication in such valleys."

R.D.G.

Anopheles punctimacula Dyar and Knab, CONVICED AS A VECTOR OF MALARIA. "It is reported by the Departamento de Malariologia of the Servicio Cooperativo Inter-americano de Salud Publica in Colombia, that they have succeeded in positively incriminating *Anopheles punctimacula* as a vector of malaria in Medellin. Epidemiological evidence based upon house and Magoon trap catches of *Anopheles*, reveal that only this species in that locality is appreciably attracted to either burros in traps or humans in their dwellings. Also, a total of six wild-caught

infected specimens have been found, only two having been previously reported for the world. This work places upon a much more firm basis the incriminating evidence against this species. The detailed results are to appear probably in Amer. Journ. Trop. Med. in the near future."

Carl B. Huffaker.

FROM SENEGAL, WEST AFRICA. An air-mail letter from T/Sgt. Claude R. Strickland, 29th Medical Composite Unit (Malaria Control), APO 622, c/o P.M., Miami, Florida, (now in Senegal, West Africa) contains the following paragraphs of general interest:

"Relative to insects of this area, I have had the privilege of association with three young fellows who belong to a Malaria Survey Unit. One has made an extensive collection of ticks here, but so far he has not found the *Ornithodoros monbata*" (the carrier of African relapsing fever). "All three are engaged during their spare-time in the collection of a variety of insects. The tsetse fly (probably *Glossina palpalis*) is common here although sleeping sickness is not found this far north. The filaria worm, *Wuchereria bancrofti* is common here and was found in abundance in the stomach of *Anopheles funestus* and *A. gambiae*. The disease" (elephantiasis) "is also apparent in local natives.

"Other than malaria control, our unit does little else. Of course, in the routine of native village spraying, we wipe out the flea, bedbug and lice populations. This you may say is purely accidental — they just happen to get in the way of the DDT.

"Certainly, mosquito control and allied fields must be brought together in a common undertaking for public good. Heretofore there have been too many agencies, diversities of opinion and of other factors too numerous to mention that have hindered progress and actually blocked the efforts of all concerned. The public cause of mosquito control can be best served by an integrated organization. I . . . believe the A.M.C.A. will be the norm for such integration."

R.D.G.

NOTES ON MOSQUITOES IN RHODE ISLAND. For the past two years there has been very little work done in Rhode Island toward the actual elimination of mosquito breeding places. Some few towns and cities were induced this spring to make appropriations and clean up their ditches, at least in part, and the City of Providence did a fine job of oiling its sewer basins; but a majority of the towns and cities were indifferent to the February campaign urging them to assume their maintenance obligations.

The reason was labor shortage.

The Division of Entomology and Plant Industry, which in Rhode Island is charged with the ad-

ministration of the state mosquito suppression law, was this year granted \$10,000 to carry on its mosquito control activities. Confronted with the same labor shortage as the towns and cities, it employed its energies in making a wriggler survey of fourteen towns in the state and in publicizing measures for the general public to take toward suppressing mosquitoes on private property. Detail plans were drawn up for five post-war projects. The remainder of the appropriation will be spent upon field equipment as it becomes available from the armed forces, and for grants to cooperating towns.

The mosquito survey disclosed some startling facts, especially with regard to the prevalence of anopheline mosquitoes within the state. They were most plentiful adjacent to the Quonset Naval Air Station in North Kingstown, but also were found in small numbers wherever a survey was conducted. The species included *punctipennis*, *crucians*, and *walkeri*, with *quadrimaculatus* predominant. Several thousand adult "quads" were observed last July, clinging to the basement ceiling of an old barn just south of the navy yard fence.

This find aroused considerable concern among ranking officers at the post. Suppressive work on pest mosquitoes within the reservation had been performed earlier by enlisted personnel, following recommendations offered by the state; but these men were not permitted to do control work outside the reservation. Since the state had neither labor nor equipment to undertake it, the U. S. Public Health Service was called to the scene. Acting under easement procured by the state, it dusted with paris green or oiled all anopheline breeding places within a one mile radius of the camp.

Adult mosquitoes discovered in the old barn were found emerging from a weedy, spring-fed pond scarcely 75 by 150 feet in area. Scattered trees overhanging the pond, which was located but 800 feet due south of the air station. There was another pond and fresh water swamp one-quarter mile northwest of the air station which likewise supported an amazingly large "quad" population.

Other localities where "quads" were fairly plentiful this summer include: a pond and cattail swamp covering 40 acres less than three-quarters of a mile southeast of Fort Benjamin Church, Little Compton; a weedy pond and swamp 8 acres in extent on the south side of Slater Memorial Park, Pawtucket; and a medium pond, partly overgrown with weeds, located 300 feet north of Quonochontaug Beach and 1½ miles west of the Naval Air Station in Charlestown. This station is an auxiliary to the Quonset Air Station already mentioned. In Little Compton the *quadrimaculatus* wigglers were most plentiful along the edge of muskrat channels.

A list of pest mosquitoes found in Rhode Island this summer includes: *C. pipiens*, *C. salinarius*, *C. apicalis*, *C. territans*, *A. sollicitans*, *A. vexans*, *A. aurifer*, *A. canadensis*, *A. cantator*, *M. perturbans*, *P. ciliata*, *U. sapphirina*, *C. morsitans*, *A. restuans*, *A. fitchii*, *C. melanura*.

It is hoped that in the coming year of 1945 both labor and equipment will be available to undertake

more work for the control of mosquito breeding in the State of Rhode Island.

William V. Bartosewitz,
State Mosquito Control Supervisor.

MALARIA CONTROL ACTIVITIES IN FLORIDA. A Bureau of Malaria Control was established in the Florida State Board of Health in July 1941. Although the war has curtailed some activities of the Bureau its responsibility in the war effort has greatly increased. In 1942 it was charged with supervising the operation of malaria control in all areas of military importance. In the fall of 1942, at the suggestion of the Surgeon General's Office, U. S. Army, a school of malariology for the instruction of officers was organized by Dr. John E. Elmendorf, Jr., Director. The school functioned in Florida until January 1944, at which time it was transferred to a foreign post in the tropics.

The Bureau has lost all of its personnel with the exception of John A. Mulrennan, Entomologist, and Nina Branch, Medical Technologist, Dr. John E. Elmendorf, Jr., Director; Dr. Edwin Riley and Dr. R. J. Patterson, Assistant Directors; and James Wright, Engineer, have all entered the military service. Dr. J. Harland Paul, Field Staff member of the Rockefeller Foundation, took over direction in March 1944.

At the present time the Bureau is also engaged in *Aedes aegypti* control and in the formulation of plans to extend efforts to the rural areas of malarious counties in Florida.

J. A. Mulrennan.

FINANCING MALARIA CONTROL WORK IN MEXICO. Mr. J. L. Robertson, Jr., of the U. S. Public Health Service, who has just returned to the States after a two year tour of duty in Mexico, explained the unique way that the Mexican Government has for financing malaria control work. Each letter that is posted with origin and destination in Mexico requires a special stamp in addition to regular postage. The money obtained from this stamp goes to the Mexican Federal Health Department and is spent for permanent malaria control work. The stamp has the figure of a man standing with outstretched arms with a large over-sized mosquito stretched over his back with its proboscis imbedded in the man's chest.

R. E. Dorer.

DDT IN PAINT KILLS FLIES. Two British paint chemists, C. G. Campbell and T. F. West, Nature, London, October 21, 1944, p. 512, may have found a means for making the interior of houses deadly to flies and other insect pests (and presumably also for mosquitoes) perhaps for long periods of time. To an oil bound water paint these investigators added 5 per cent of DDT. When panels coated with this paint (and thoroughly dried) were placed in fly cages, the flies were all killed. Two months later the panels coated with DDT-bearing paint were