

WORLD WIDE MOSQUITO CONTROLPacific Coast Anti-Mosquito
Conference Cancelled

The annual conference of the Pacific Coast Mosquito Abatement Districts has been cancelled because of the war effort restricting the members time and transportation. One paper by Mr. G. W. Mapes, originally prepared for this conference, has been offered to Mosquito News for publication and appears in this issue under New Developments in Mosquito Control.

The 1942 Anti Mosquito Campaign in Bermuda

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In the autumn of 1941 a sharp epidemic of dengue attacked 1,401 people of this island, according to the records of the Health Department, and probably as many more whose illness was not recorded. It seemed but a sensible procedure and a war time precaution to see that such a catastrophe should not recur, especially as the mosquito *Aedes aegypti*, which spreads dengue, can transmit yellow fever with equal facility, once the seed is planted. So it was agreed that all available forces should be joined in an effort to clear this mosquito; and, as she is indistinguishable from others to most eyes and on most occasions, all mosquitoes should be fought. Some of the others if not of primary importance in human health are no less of a nuisance and probably are significant in veterinary medicine.

So for six months this year the U. S. Army and Navy joined a squad of the British Garrison in helping the

Health Department to inspect the island and fight the domestic mosquitoes. The force consisted of thirty American and twenty British men. The U. S. Army in addition supplied the services of Mr. Jason Berry, a sanitary engineer, to help in the campaign.

The island was divided into fifty parts and an individual map issued for each part. The territory was then covered by the temporary inspectors. Tanks and gravity tanks were inspected and screened or supplied with fish, abandoned tanks punctured, rock cisterns filled or punctured, gutters straightened, needless receptacles and trash cleared, water containing plants uprooted, and much undergrowth cut away. At the same time appropriate leaflets were issued to all the school children, and the Bermuda General Theatres Limited most generously loaned the use of its halls and equipment in Hamilton, St. Georges, Hamilton Parish, Southampton and Somerset so that a mosquito film could be shown to the entire school population. Thus the campaign with its purpose was brought to the attention of every man, woman and child of school age.

Throughout the six months the chief officers immediately concerned in the campaign met weekly to review the work, and the press issued statements of their deliberations. Without the generous cooperation of these officers and men of the armed forces of the two nations, and also of the press, it would have been impossible to make the substantial progress against mosquitoes which was achieved. The measure of that progress was indicated by a trap near the Electric Light Station which bagged five mosquitoes during three nights in October against seventy-four over the same period in May. Other traps gave much the same results. The traps were in the hands of Mr. John Travis, who has worked on mosquitoes in the United States for thirty years and whose services were loaned by the New Jersey Mosquito Commission for the campaign. Mr. Travis not only gave practical expert advice throughout, but proved an excellent coordinator and never failed to clear those little differences which invariably arise between

one group of workers and another. The people of Bermuda have good reason to extend their gratitude to the U. S. forces, the British Garrison and Mr. Travis for the work accomplished.

The Dockyard joined in the campaign. Then the work had to be carried to the islands in the Great Sound, Hamilton Harbour and St. Georges Harbour, and the boats moored in those waters. For these periodic inspections carried on from Hamilton many thanks are due to Mr. Sydney Spurling who not only took the inspectors in his motor boat without charge, but on several days gave them the benefit of his own intimate knowledge.

Another job was the clearance of red hot poker plants which hold usually a gill of water and furnish an admirable breeding place for mosquitoes. At the beginning the clearance of these plants was considered an incidental matter, but their numbers have run to about 20,000 without the end being reached.

But inspecting and clearing domestic mosquitoes was not the only object of the campaign, for the marsh mosquitoes remained, and much manual spade work has had to be carried on beyond the public gaze against them. The first job was to sink 700 yards of trench in the swamp at Southampton West. No contractor could be found to undertake it at less than 4/- a cubic yard, so the Health Department assumed the work. Inspector Wright became foreman and put through the initial job at 2/2d a yard. Thenceforth he superintended most of the trenching and also the clearing of old drainage trenches. The figures run to some length; in Warwick 120 yards of trench were dug and 1,770 cleared; in Paget 1,285 dug and 1,130 cleared, in Devonshire 3,900 dug and 2,125 cleared, in Pembroke 725 dug and the canal cleaned for a mile and a half, 150 yards of subsidiary trench cleared and another 150 yards of trench, no longer effective, filled; in Hamilton Parish 320 yards

of trench were dug and 400 cleared; in Somerset 250 yards cleared. Thus in round numbers 7,250 cubic yards of trench were cut and the same amount cleared, if the Pembroke canal is not counted. No separate account was kept between the digging and clearing, for the work went on concurrently, but in general a yard was dug and another cleared for 2/3d, and at the present time there are 8½ miles of trench in working order. In addition 2,000 square yards of Southampton Pond were cleared.

Incidentally it is of interest to note the number of mosquitoes trapped. *Aedes aegypti* 260, *Culex fatigans* 220, *Aedes sollicitans* 73 and *Aedes taeniorhynchus* 249, the first two being the domestic and the last two salt marsh varieties.

During these six months numerous talks on mosquito control were given to clubs and small groups and a 16mm film was shown. In furtherance of this idea Messrs. Travis and Berry devised, and Mr. Knudsen photographed a 16mm technicolor film which will be ready for general use in the New Year. It is both informative and beautiful and should be popular.

Though much has been done a good deal remains. The marshes extending disjointedly from Paget East into Smiths have to be trenched and the edges of ponds straightened. During the cool months the U. S. forces are inspecting St. Georges Parish, Tucker's Town, part of Smiths and all of Southampton. The remainder of the island is being covered by a maintenance squad of eight men working from the Health Office. They are doing more than maintenance work and have made several definite advances. In the spring, however, it will again be necessary to cover the island several times in rapid inspection, and the General of the U. S. Army has generously promised to augment the mosquito squad for several weeks to enable the mosquito control to be put on the most favorable basis. The residents are cooperating and if they will but keep up their interest the mosquitoes should be sufficiently reduced by midsummer to be under permanent control.