NEWS AND NOTES

THE FOLLOWING LETTER to Mr. Mulhern, because of its interest to AMCA members, is published in its entirety.

"Turoa"
Raratonga
Cook Islands
24th April 1951

Mr. Thomas D. Mulhern, Secretary
American Mosquito Control Association
334 Rowell Building
Fresno, California

Dear Sir:

I have been given your name by Captain R. W. Babione, MC, USN, as one who could give me some information on the latest efforts in mosquito control.

For the last twenty-five years I have taken an active interest in the control of mosquitoes in this part of the Pacific, and during the last war when I served in the N.Z. Air Force, had the pleasure of meeting many American officers with kindred interest.

Since the war it has been more difficult to get any up to date information, and I am informed that there is a publication "Mosquito News" published by your Association. I would be glad to know the cost of subscription.

As you are no doubt aware our principal disease carried by mosquitoes in this part of Polynesia is filariasis, the vector of which is in this section *A. scutellaris pseudoscutellaris,* but with a fortnightly call of aircraft from Fiji, there is always the danger of introducing yellow fever, and dengue, as we have *A. stegomyia aegypti.*

My interest is that of a student, and I have for years devoted time to developing a type of larvivorous fish that would act as a check in the swamps.

The principal difficulty is that storm water carries off the fish and dry periods kill them, however, by renewing the supply frequently they have a definite value, especially if used with the insect *Anisops cleopatra,* which has the power of short flight and can fly from pool to pool.

In some of the islands of New Britain, there is a small Ceratopogonine that appears to suck from the adult mosquito.

Should any of your Association be in this part of the Pacific I would be glad to meet them, and give them some of my fish for further experiment.

Yours faithfully,
(Capt.) J. D. Campbell

THE INTERNATIONAL RESEARCH CENTRE FOR CHEMICAL MICROBIOLOGY was formally opened in Rome on June 25. The Centre, directed by Professor E. B. Chain, F.R.S., is attached to the *Istituto Superiore di Sanità,* the chief center for medical research and drug control of the Italian Government. Its Director is Professor Domenico Marotta. The Centre, which is recognized by WHO as an international Centre, will provide international research and training facilities in antibiotics. It will meet the need felt by many countries which lack facilities for basic research on antibiotics, particularly as regards problems of production. Its new laboratories contain large-scale pilot plant facilities for the production in substantial amounts of substances of microbiological origin and biochemical interest for research purposes.

From Bill Perry:

The following short note may be of interest to you for reproduction in MOSQUITO NEWS in your "News and Notes." As usual, the greatest burden of work still rests in physiology and so forth with little chance to keep up the medical entomologic aspects and problems in tropical medicine. This note I am including is of importance, however, because it represents a shift in emphasis such as many of us predicted would happen during the control operations in the Pacific. For lack of a better title I might list it "Effect of Malaria Control on Immunity":

"During a recent meeting of the Royal Entomological Society of London the problem of immunity and malaria control was discussed following the presentation of a color film on the mosquito eradication campaign in Cyprus.

"Emphasis was placed on the danger of a recurrent epidemic in malarious areas when natural immunity was reduced in an indigenous population through attempted complete mosquito eradication in endemic areas.

"Experience on Sardinia suggested that children ceased to possess a natural immunity to malaria through such control measures and that epidemics may be expected if adequate preventive measures are not continued.

"The results of such campaigns on Sardinia, Cyprus and Greece, leaves one to speculate on the current incidence of disease in native populations on many of the South and Southwest Pacific Islands where control measures, since the withdrawal of military troops from these areas, were stopped completely after 2–4 years of anopheline eradication.

"In addition, Professor F. J. C. Cambournac, W.H.O. expert on malaria, and one of the principal participants in the Malaria Congress which met at Kampala (Uganda), made a seven months' tour of Equatorial Africa and presented an account of the general survey of malaria in this area. The problem of hyperendemic malaria and immunity was one of the main questions on which the conference had to take a decision. In brief, however, they indicated, too, that adequate controls should be maintained to reduce the risk of re-infecting populations which, as a

result of control operations either complete or partial, have lost their immunity to malaria."

I talked with Dr. Bishopp yesterday and, unfortunately, because of his tight schedule I was not able to have lunch with him during his stay in London. I am looking forward to meeting him, however, in Amsterdam when we both will be attending the sessions on medical entomology during the international congress.

My very best regards.

Sincerely yours,

William J. Perry

DR. RICHARD H. DAGGY of the Arabian American Oil Company, Dhahran, Saudi Arabia, has written as follows:

"As for your 'News and Notes' requests, I suppose I should account for myself after 4 years in Arabia—especially since I thoroughly enjoy reading accounts of activities of friends and professional acquaintances with each new issue of MOSQUITO NEWS. Although more and more of my time is taken up with administration of our Preventive Medicine Division, I'm still very much interested in the mosquito and malaria control problems here in Saudi Arabia and feel that others may be interested and perhaps surprised at a mosquito-malaria problem in a predominately desert country.

"One of our largest projects has been that of DDT residual spraying as a malaria control measure in nearby oasis towns and villages. Malaria has always been a most important health problem in irrigated lands in Arabian oases. Before we began our DDT program, more than 2,000 of our 10,000 Arab employees reported to our hospitals and clinics with malaria in the single year of 1947. After two successive years of DDT control, less than 50 reported in the same period of time. Checks on children in the villages disclosed an average of over 80% parasite infections before treatment. After 3 annual applications this has been reduced to 2% in some of our test villages—another excellent illustration of the success of DDT house spraying in malaria control where a domestic species such as our *Anopheles stephensi* is concerned.

"At present we are planning our next annual application for September 1951. Over 450,000 pounds of 75% DDT wettable powder will be used in the Qatif oasis on the coast, in the Hofuf oasis farther inland, in the Al Kharj area, and in Riyadh in the interior. Much of our efforts are aimed toward training Saudi Arabs in residual spray techniques. We've found that 75% wettable DDT and wheelbarrow sprayers are most successful under our conditions. We are looking forward to even better results in cases prevented and a further reduction in parasite indices in children after our repeat surveys this coming November and December.

"Another interesting project still underway is an *Anopheles* eradication attempt in the isolated Jabrin oasis some 300 miles inland from Dhahran on the edge of the Empty Quarter. Here is an abandoned oasis with evidences of past settlements, some of great age, and more recent evidence of attempted agricultural colonization. From all historical accounts and current history, malaria has been the deciding factor in failure of agricultural development in the past.

"Our investigations showed *Anopheles sergenti* breeding in about 800 wells and small pools in the area. Using Lovett's DDT-impregnated briquette technique reviewed in MOSQUITO NEWS *8*(3):126, we planned a series of well treatments designed to knock out all breeding places during the summer and fall months of 1951. Our hope is that adults will not be able to survive the hot weather of Saudi Arabia for more than a few months—and that with all breeding places residually treated, the species will be eradicated from the area. With *sergenti* a relatively weak flyer and the oasis remote from other breeding areas, we hope *sergenti* will not be able to re-establish itself.

"It will be an interesting project to watch since most of us have been intrigued by eradication possibilities—even though we realize that Jabrin is not quite another Sardinia or Cyprus.

"In conclusion let me issue an invitation to old friends and other MOSQUITO NEWS acquaintances to stop by Dhahran and visit us if any of them are passing through this part of the world. We are sure you will find some unusual mosquito and malaria problems of interest and we will be most happy to show them to you.

Sincerely,

Richard H. Daggy

Preventive Medicine Supervisor"

DR. F. C. BISHOPP was among those attending the Ninth International Congress of Entomology held in Amsterdam, the Netherlands, August 17 to 24.

RICHARD F. PETERS is now Chief of the Bureau of Vector Control, California State Department of Public Health. He succeeds Arve H. Dahl who recently took a position with the Office of Civilian Defense in San Francisco.

FROM THE OFFICE OF THE SURGEON GENERAL, U. S. Army, Lt. Col. F. W. Whittemore, Jr., has supplied the following information about AMCA members: Stanley J. Carpenter has been given the permanent rank of colonel and is now on duty in the Sixth Army Area Laboratory, Fort Baker, California. Lt. Col. F. S. Blanton recently received his Ph.D. at Cornell and is now in Panama where he succeeded Col. Carpenter at Fort Clayton, Canal Zone. Captain Gordon Field is working in the Office of the Surgeon General in

Washington. Lt. Frank Favorite is now Chief of the Entomology Branch, Third Army Medical Laboratory, Fort McPherson, Georgia.

CDC TECHNICAL DEVELOPMENT SERVICES reports that in small land-locked ponds where hazards to fish and other wildlife do not have to be considered, Dieldrin emulsion at the rate of one pound per acre gave effective control of mosquito larvae for one to two years—from the CDC Bulletin 10:(4), p. 22, Apr. 1951.

Obviously such a potent larvicide should be used with extreme caution in areas where attention must be given to wildlife.

MOSQUITO TRAPS may be purchased from Foster and Morrison, 120 Kentucky St., Bakersfield, California, as well as from Hausheer's Machine Works, Bayville, N. J. If other manufacturers will advise us of their existence, we shall give them a little free advertising too.

ENTOMA, a directory of insect and plant pest control, is expected to come from the press in early December.

AN EXCERPT FROM A RECENT LETTER TO TOMMY MULHERN is reproduced with Dr. Matheson's permission:

"I was very pleased to get your letter of Feb. 10th and to learn that you are happy and content in that famous state of California. Mosquitoes seem to be booming and with more and more development of irrigation farming can the people expect anything else but that the mosquitoes should take advantage of this wonderful opportunity and multiply to their fullest extent under such a wonderful climate? Furthermore there is no way to exclude wandering mosquitoes from other parts of the country, quarantines are probably not *very* effective. *Aedes nigromaculis* is a visitor and I am waiting to hear that our old friend *Anopheles quadrimaculatus* has at last reached the golden state. What a wonderful time it should have? What I cannot understand is its failure to reach California before this.

"Life moves on as usual here in the East. Spring is coming slowly but I will not be able to run about the hills, marshes, lakes and streams to seek my friends, the mosquitoes, as in previous years. However I hope to follow a few of my friends and learn a few new things. I am back to work about half the time now and still have an office in Comstock Hall where I enjoy reading what my friends are doing and all I can do is to wish them well. Perhaps I am a pessimist but I do not think we shall be able to exterminate many of our blood-sucking friends. . . .

"With all good wishes and best of luck,
Sincerely yours,
Robert Matheson."

MR. RUFUS VINCENT has returned to the mainland after a long tour of duty on the Island of Guam. He is now working in the office of the Chief of Engineers, U. S. Army, Washington, D. C.

Aedes aegypti CAMPAIGN IN THE AMERICAS. The number of successful campaigns that have eradicated insect vectors can be counted on the fingers of one hand. It is interesting, however, to note the success that has attended the efforts in eradicating *aegypti*. This mosquito, because of its domestic habits and short flight range, has already been eradicated from many localities by collaborative campaigns between Latin American countries and the Pan American Sanitary Bureau, Regional Office for the World Health Organization. Dr. Soper states, "It is the first time in the history of the world that a continent is collaborating on a program for the solution of a public health program and the eradication of a disease vector on a continental basis."—*Tropical Medicine News.*

ACCORDING TO TROPICAL MEDICINE NEWS the World Health Organization has been asked for help in malaria control by King Ibn Saud so that additional agricultural areas in Saudi Arabia can be settled.

A SERIOUS SHORTAGE OF DDT is reported by the Pan American Sanitary Bureau in the June number of Tropical Medicine News. The United States produces about 75 per cent of the world supply. There has been an increase in allocations for defense needs and a shift of some of our benzene production to manufacture synthetic rubber. Several countries in South America and Asia have been affected by the shortage.

THE STEM, PHS MISSION to Thailand to assist the Thai government in the expansion of its malaria control program has found energetic and enthusiastic cooperation from the malaria workers of Thailand. Even remote villages are reached by transporting DDT drums over difficult trails on bullock carts, and survey men often walk 10 to 20 kilometers to reach off-the-road settlements.

Participating in the program are Dr. M. E. Griffith, Entomologist, PHS, STEM to Thailand; Dr. Tanticharen, in charge of the station at Bhrabhudabat; Dr. Erval R. Coffey, M.D., PHS, Chief of PHS Mission; and Dr. Ayurikit, Chief, Div. Malaria, Thailand Dept. Health.—D. C. and E. Thurman, c/o U.S. STEM, U.S.P.H.S., Chiengmai, Thailand; contributed by H. L. T.

DR. LOUIS L. WILLIAMS, Chief, Division of International Health, U. S. Public Health Service,

has, according to him, become strictly a "homebody." We wonder, however, just how long this quiet existence will last. He is most enthusiastic about the work being done by DIH young men around the world. He emphasized, too, for the AMCA members, that in practically every country where Public Health Service directs projects for ECA and the Point 4 Program that malaria control is one of the important undertakings.—H. L. T.

REVIEWS AND ABSTRACTS has acquired assistants in 3 foreign countries:

Brazil, Dr. Fernando de Bustamante, Rua Aristides Espínola 11, Apt. 3—Leblon, Rio de Janeiro, D. F., Brazil;

Thailand (Siam), Ernestine and Deed C. Thurman, Jr., U.S. STEM, U. S. Public Health Service, Chiengmai, Thailand;

India, Dr. Rajindar Pal, Malaria Institute of India, 22 Alipore Road, Delhi, India.

These members have graciously consented to screen and abstract the literature from their part of the world and so make available to the AMCA much information which otherwise might remain obscure.—H. L. T.

"INSECT CONTROL BY CHEMICALS" is the title of a book just published by John Wiley and Sons. The author is Dr. A. W. A. Brown of the University of Western Ontario. A review will appear in the December MOSQUITO NEWS.

NEWS FROM VIRGINIA. The fifth annual meeting of the Virginia Mosquito Control Association will be held at the Chamberlin Hotel, Old Point Comfort, on Jan. 7, 1952. This year's officers are as follows:

President—Jonathan S. Gibson, Warwick County
Vice-President—Dr. L. H. Denny, Portsmouth
Second Vice-Pres.—V. D. McManus, Williamsburg
Third Vice-Pres.—J. W. Dennis, Jr., Norfolk
Secretary-Treasurer—Rowland E. Dorer, Norfolk

Two new mosquito control districts have been established in York County. The Hampton Roads area is having the worst infestation of salt marsh mosquitoes in many years.

There was widespread publicity concerning an outbreak of what was at first thought to be encephalitis in Richmond in midsummer. The so-called epidemic died out very rapidly, and it is now known that the disease was meningitis.

DR. T. B. MAGATH, writing in the June Tropical Medicine News, states that 16,000 servicemen who served in Pacific areas were diagnosed as being infected with filariasis. It is highly improbable that this figure is a valid one; in only a handful of cases were microfilariae demonstrated in the blood. Adult worms were observed in sections made of lymph nodes in a small group. A pilot study of the present status of these veterans has shown that almost none of the patients now exhibits any difficulty which can be definitely said to be caused by the infection.

THE QUESTION OF COMPLAINTS as a means of measuring the success of a mosquito control program has been discussed in two recent issues of Mosquito Buzz, the news-sheet of the California Association. An engineer has commented that in sanitation work he has found few complaints in areas where conditions are at their worst. People in rat infested areas expect to see rats and do not complain about them. Yet people in relatively rat free areas seldom see a rat and do complain when they see one. He believes that complaints are almost totally unreliable as an index of environmental sanitation conditions.

A Mosquito Abatement District Manager believes that properly interpreted, complaints give almost as good an index of mosquitoes as light traps, leg counts or what have you. When a complaint is answered all possible information is gathered, and survey records are checked so that the complaint can be classified largely on the basis of the type of mosquito. In this particular district *Aedes migromaculis* is the cause of a great many complaints, and it is felt that reduction in the number of complaints from this cause are without doubt due to control efforts.

It is probably true that the proportion of valid complaints is relatively high in areas where control work is successful. It has been noticed by many workers that in a new control zone a very small number of mosquitoes will cause a large number of complaints after the area has been almost free of mosquitoes for only one or two seasons. People have forgotten how bad the mosquitoes were before control measures were initiated. They have become spoiled.

Recently it was found in a Maryland zone that a number of complaints could be easily correlated with an increase in mosquito density. In this case the complaints were a help in forcing a more thorough check on the cause of the increase in population (a faulty formulation of insecticide).

But whatever their value as an index of good control or regardless of whether or not they are valid, old timers will agree that complaints must be answered. They cannot be ignored even if the complainer is complaining of flies or fleas.