NEWS AND NOTES

AUSTIN W. MORRILL, JR.

A NAVY CAPTAIN WHO CAME OUT TO CALIFORNIA TO RETIRE (and we refrain from comment on *that,* you Florida members) recently told us that the most remarkable job of mosquito control that he has ever encountered in all his Navy travels, is that done at Virginia Beach, Virginia. Commenting on the efficiency of the control crews and their systematic appearance during the season, he remarked how once that region had been all but uninhabitable during certain parts of the day and year. TAKE A BOW, ROLLIE DORER & COHORTS! !

INCIDENTALLY, VMCA's *Skeeter* announces February 24 and Suffolk, Virginia, as the time and place of the 1959 Virginia meetings and we certainly hope that many of you got to them, for they are always well worth a trip. Rollie says he'll send us a copy of the program and we will put it in this space (which is being written *before* the meeting date) if he meets our deadline. This is the Twelfth Annual Meeting for the Virginia Association and the fifteenth anniversary for *Skeeter.* Another distinction which should not go un-noted is that VMCA's exhibit was the AMCA exhibit at the meetings of the Entomological Society of America, held in Salt Lake City in December, and the display elicited lots and lots of admiring comment.

THE CMCA MEETINGS WERE HELD AT MONTEREY, CALIFORNIA on the 2nd, 3rd and 4th of February, this year and comprised two principal sections of consideration. On the first day and half of the second, various papers and symposia covered problems of administration and operation, including purchasing, insurance and public education. The remainder of the sessions covered inter-agency coöperation, insect population surveys, gnat research programs, toxicology of new insecticides and resistance to old ones. *Meaty.*

DR. WILLIAM E. BICKLEY OF MARYLAND arranged a "Dutch Mixer" during the annual meeting of the Eastern Branch of the Entomological Society of America, which was held in Baltimore at Thanksgiving time. With the help of Mr. Vernon Conant, Director of our North Atlantic Region, he rounded up some sixty members and guests. Bick says there were no speeches, except that everyone present was urged to make the trip to Salt Lake City in April. At the meeting of the Eastern Branch, Manley Jobbins discussed at length the position of *Culiseta melanura* in New Jersey, for there seems to be considerable circumstantial evidence that this species is a vector of eastern equine encephalitis. Encephalitis is, of course, becoming of increasing concern to entomologists, who are probing the question as to which mosquito is the vector. The New Jersey people believe that *melanura* is a species which should be watched, especially because of its possible importance in maintaining the virus in birds. Dr. R. C. Wallis reported on a rather extensive survey of Connecticut for this species. He concluded that insufficient information is available to consider *melanura* the principal vector in Connecticut but added that much work has been and is being done in attempting to isolate the virus from adult female mosquitoes there.

DR. FRED BISHOPP SENDS US A CLIPPING FROM THE FT. MYERS (FLORIDA) *News-Press* for November 13, 1958, to show that cattlemen, too, are interested in mosquito control. The clipping described at length a meeting of cattlemen from all over the southeastern states and gave prominence to a talk given the convention by BOB BARTNETT, President of the Florida Anti-Mosquito Association. "Animals that are being attacked by mosquitoes cannot possibly gain the weight that undisturbed animals put on," Bob told them. He went on to point out the relationship between mosquitoes and diseases and to explain the relationship between cattlemen and mosquito control districts. From the tone of the clipping, he impressed them with both these basic principles.

DR. FRED'S LETTER was sent from Nassau, Bahamas, and said that he and Mrs. Bishopp had attended the meeting of the American Association of Tropical Medicine and Hygiene and were touring Florida in search of a place to pass the winters amid a little less snow than they have in Silver Spring, Maryland. Good luck! We'll hope to hear all about your further travels at Salt Lake City, Fred!

DR. MELVIN E. GRIFFITH, CHIEF MALARIA CONTROL ADVISOR TO THAILAND has been helping out in Laos, too, where ICA had no program. All this will now be changed, however, with the arrival there of DR. MAYNARD S. JOHNSON, another AMCA'er who has been until now the Army's civilian entomologist in Japan. Maynard and his wife left the United States on the 24th of January for Vientiane, the capital of Laos, for a four-day Thailand-Laos malaria conference beginning the 2nd of February. This is to be the kick-off of ICA's malaria eradication program. En route, the Johnsons went by Tokyo to clear the things off his desk, which he didn't have time to even put away when he was "recruited" by Don Johnson, awhile back! Well, it's all in the family, Don. Good luck, Maynard!

(Maynard's new address, by the bye, is: USOM Laos, Box L, Navy No. 150 % FPO San Francisco, California)

EARL MORTENSON SENDS US A PARAGRAPH OF INTEREST ABOUT THE FORMATION OF A NEW MOSQUITO ABATEMENT DISTRICT IN FRESNO COUNTY, CALIFORNIA. This has been formed in the western portion of the county and is officially known as the Fresno Westside Mosquito Abatement District. It will comprise 1,325 square miles of area with approximately 800 square miles in irrigated agriculture and more coming. Earl points out that the Board of Trustees is now (or was as of the middle of January) considering applicants for the position of Manager-Entomologist. The salary range will be from $600 to $750 per month, depending on the training, experience and personal qualifications of the applicant, and application may be made to Mr. Roy H. Howard, President of the Board of Trustees, Fresno Westside M.A.D., Box 186, Dos Palos, California. The successful applicant will be handed the knowledge that resistance to parathion is looming in that area, that irrigation and population are zooming and that he should not take Equanil any oftener than once in three hours.

YE OLDE HARRY (STAGE, that is) sent us the proceedings of a conference on mosquito control held at Pullman, Washington, on November 5, 1958, just too late for our December deadline, alas. The conference surveyed the progress of mosquito abatement in the Columbia Basin area and the advancement of knowledge on mosquito species involvement. They heard a report of the activities of entomologists under the direction of our Harry and discussed insecticide resistance (naturally) before giving consideration to the establishment of a permanent mosquito control association and inviting the expression of opinion as to the desirability of establishing a spring short-course in mosquito control.

YOU MAY REMEMBER OUR MENTIONING GEORGE BURTON'S NEW WORK ON FILARIASIS IN INDIA and the distances involved in his travels within that monumental and populous nation. Well, if you have ever wondered idly how come the ubiquitous "cocoa mat" in front of people's doors happens so often to be stamped "Made in India," George has found out a lot about that for you. Those fibres *are* cocoanut husk and they *do* come from India. They are grown down in Kerala and part of the preparation process involves letting the husks lie in tanks of water and rot until the fibres are loosened. All this is, of course, just fine for mosquitoes and also produces a lagoon suitable to growth of *Pistia,* to the roots of which *Mansonia* makes its customary attachment. All this is in the light of the developing fact that *Mansonia* accounts for about 15 percent of the filariasis and *Culex fatigans (quinquefasciatus* to you and you and you) for 85 percent, tying it up between them pretty well. The people who run the rotting tanks don't want them sprayed, needless to add. They like mosquitoes.

BRIAN HOCKING APPEARS IN THE NEWS EVERY NOW AND THEN AND THE LEAFLET *Scan* is the latest to write up his long and productive studies on the flight of insects. The Shell Co.'s informative little sheet digests an article Dr. Hocking wrote for the *Scientific American* and we advise you to look *that* up in your library, for it is mighty interesting. Brian is quoted as summarizing, "Insect flight is a complex and controlled action which has served insects well, as is testified by their survival in this man-infested world."

FRANCISCO BAISAS IS THE AUTHOR OF A THOROUGHGOING AND FACT-PACKED article on filariasis in the Philippines, which originally appeared in the Philippine *Journal of Science* in 1957, but has just reached us in the form of a reprint published in 1958. Part of his classic series of *Notes on Philippine Mosquitoes* (XIX), the present article is entitled, *The Mosquito Problem in the Control of Filariasis in Sorsogon Province* (Southeast Luzon). In the study reported, *Culex fatigans* was found for the first time in nature with infective third-stage microfilariae, and, disturbingly, they were found in mosquitoes resting imperturbably on walls where traces of DDT were readily visible. Similar resistance was found in three other of the principal vector species.

TOM MILLER (JR.) SENDS US HIS FIRST ANNUAL REPORT OF THE LEE COUNTY (FLORIDA) MOSQUITO CONTROL DISTRICT which was born on the 21st of January, 1958, of a consolidation of three former districts, with a legacy of accomplishments, equipment . . . and problems. The former component districts had comprised less than 8 percent of the County (the more densely habitated areas) whereas now the District contains 98 percent of the County, and a lot of untaxable but highly mosquito-infested areas, at that. Fortunately, this year was a light mosquito year and they were able largely to concentrate on basic environmental work, much of it in line with Dr. Provost's recent findings; but here is the rub. The citizenry took the natural lightening of the population to be the result solely of the new District's efforts and Tom fears (as we know too well, with reason) that *next* year they may not at all understand why the mosquitoes are still around in some numbers. Well, good luck next year!

GEORGE THOMPSON'S ANNUAL REPORT FROM JEFFERSON COUNTY (TEXAS) details a valiant (and successful) fight against irregularities in the environment in the form of alternate droughts and floods, which is both consoling and heartening to those of us faced with similar problems. Two points which seem of particular interest are George's use of chemical non-hormone herbicides and the use of airplanes, not only for insecticide dispersal but also for reconnaissance and indoctrination. Both were very effective, in George's view; he points out that the aerial reconnaissance by ground personnel gives them a better view of their work both psychologically and physically.

CHET ROBINSON REPORTS THAT ALAMEDA COUNTY'S MOSQUITO ABATEMENT DISTRICT partici-

pated in a County Government on Display exhibit at which the District's color pamphlet entitled, *Mosquitoes Are Unnecessary,* was handed out to the tune of two thousand copies. The exhibit contained also photos of operations and two tanks of water, one with mosquito larvae and one with mosquito fish. The pamphlet emphasizes individual responsibility and ought to be a very valuable booster both of the public rapport and public participation.

TED RALEY'S WORDS OF WISDOM TO MANY INTERESTED MEMBERS have no doubt been duly noted by many of you but can well bear repeating here. Ted points out that each of us can fulfill a vital function in AMCA by participating in two of its least time-consuming activities. That is, you can participate without consuming any more time than it takes to write a single sentence. First is the Good Neighbor Club, which you can join by merely writing one little line and your name on a check. This enables you not only to strengthen AMCA and *Mosquito News* but individually and effectively to participate in the United States of America's Technical Assistance program. The second activity is to encourage the suppliers you buy from to put ads in *Mosquito News.* This will help both them and you . . . and thus, *us.*

TRAVIS MCNEEL RETURNED TO TALULLAH (LOUISIANA) FOR THE HOLIDAYS and thus signalled the end of his tour in Mexico. He didn't say if he was going to stay in this country now for a change, after his rapid-fire transition from the Philippines to Mexico, or if he, too, is going to be a permanent AMCA Globetrotter. We can tell him one thing, that mosquito-borne virus, *Wandervogelitis,* is durn hard to eradicate.

IF THE LIEUTENANT MAY BE ALLOWED TO PRESENT HIS COMPLIMENTS TO HIS GENERAL (this isn't *done,* militarily speaking), "News and Notes" would like to applaud the editorial on the Defense of English, or Gobbledegook Deplored. We have been as guilty as anyone, we fear, in straining the language past its normal limits of elasticity in our labored efforts to be Light and Witty. Sometimes what we write seems rather different in cold print, (as in our remarks about Dr. Knipe's article in the last issue, which sounds rather contentious as we read it over, when we meant merely to be chatty). But it is certainly high time to View with Alarm the spectacular displays of semantic virtuosity which nowadays construct elaborate and meaningless circumlocutions where perfectly good and meaningful words already exist. Incidentally, Ed, this business of *attrahent:* it may interest you to know (as if you didn't) that the old Bureau of Entomology made a valiant effort to promulgate the word and did get wide acknowledgment that it was *correct,* all right, back in the 30's, but it was just that nobody wanted to use it. Couldn't seem to make it sound right when it was read out loud.

ANOTHER THING TED RALEY TOLD US IN HIS LETTER WAS THAT DR. OSMOND P. BRELAND has replaced Dr. Micks as Director for the Southwest Central Region. Don is in Geneva, according to Ted, who says that so far he hasn't heard one word against Alaska from our biggest glacier-free state. But just wait until we start reading about all the doings of the AMCA and wake up to the fact that it's the *Alaska* Mosquito Control Association they mean!

THAT TAKES CARE OF OUR NEWEST STATE, WE THINK. WE WILL NOW LEAD OFF OUR WHO'S WHO IN AMCA WITH TWO MEMBERS FROM OUR *NEXT* STATE.

PAT NAKAGAWA, who was mentioned in the December issue for his notable work on the Membership Committee, is the Chief of the Bureau of Mosquito Control in the Division of Sanitation of the Department of Health of Hawaii. Pat was born there in 1920 and received his B.S. there in 1942, after which he went to the University of Minnesota (which is about as far as he *could* go, climatically, we guess) for his M.S. He served with the famed, "most decorated" 442nd Infantry during World War II in Italy and France and, after receiving his M.S., returned to Hawaii on the Oriental Fruit Fly Investigations. He was entomologist for the U. S. Army, Pacific, from 1951 to 1955, when the Air Force snatched him away for three years, as civilian entomologist. A year ago he was tapped for his present position when Dr. Hu joined the Naval Medical Research Unit No. 2, of which more later. Pat's hobby, beside being a top-flight and modest golfer, is wood-working and (*we* think, from the results) gardening . . . . Pat says you don't garden in Hawaii, everything just grows. He is a member of the Entomological Society of America, the Society of the Sigma Xi, the Hawaii Entomological Society and the Hawaii Public Health Association, as well as of the AMCA.

DR. STEPHEN M. K. HU, whom we mentioned above, was born in Honolulu in 1903 and spent his early years, no doubt, congratulating himself on his perspicacity. This same perspicacity led him, however, to choose mosquitoes and their role in disease transmission as a life work, and this led him to Cornell University where he took his B.S. in 1928 and his M.S. in 1929. In 1931, switching to Johns Hopkins for his Sc.D., his thesis was on the subject of *Mosquito Transmission of Dog Filariasis.* Field studies with the Rockefeller Malaria Research Stations in Florida and the Philippines and with the Henry Lester Institute in Shanghai, with UNRRA and the Army Advisory Group, led up to his appointment to the Bureau of Mosquito Control of the Hawaiian Department of Health, which Bureau he headed for ten years. Dr. Hu lists among his honors the fact that he studied under such able and renowned men as Professor Robert Matheson, Professor Francis Post,

Dr. Mark Boyd and Dr. Paul Russell and we imagine that they consider it among their honors to have had so distinguished a student and colleague. He is now with the U. S. Naval Medical Research Unit No. 2, APO 63, San Francisco, and besides being a member of the American Society of Tropical Medicine and Hygiene, the Hawaiian Entomological Society, the Hawaiian Academy of Science and the Society of the Sigma Xi, is also a member of the Lions Club, Sinim Lodge and the Islam Temple and finds time to go in for the contemplative hobbies of swimming, shell collecting, fishing and occasionally, exchanging fins and goggles for boot, to go hiking. Who said that these Tropical Paradises make people lazy?

HAROLD TRAPIDO, although he was born in Newark, New Jersey (in 1916), is another example of how the tropics sap one's energies. He got off to a running northern start, of course, having taken his undergraduate work at Cornell and enough of his graduate so that he could achieve his Ph.D. on a three day pass from the Army in the early part of the War! His careful and effective work as Lieutenant in charge of mosquito control at Camp Davis was thoroughly, though rather too quietly, appreciated by his military superiors and led in 1944 to a course in tropical and military medicine at Walter Reed Army Medical Center and assignment to the Gorgas Memorial Laboratory in Panama. He arrived there for 120 days temporary duty and did not leave until 1956, some 4370 days later. By then he had managed to get out of the Army, anyway. Well, he did have occasional leaves of absence, such as being consultant on the *Anopheles labranchiae* eradication program in Sardinia. He worked on the bionomics and behavior of *A. albimanus* in Panama, as he says, quite happily, until yellow fever suddenly showed up and from 1948 on he gradually became involved in the study of forest mosquito fauna in relation to sylvan (*not arbor*, ED) yellow fever. In 1956, as mentioned previously in N. and N., he joined the Rockefeller Foundation to go to the Virus Research Centre in Poona, India. In addition to the fascinating investigations on the Kyasanur Forest Disease, of which Bill Reeves brought us word in December, Harold has also been involved in studies on the mosquitoes associated with the transmission of the viruses of the Japanese B encephalitis—West Nile complex. "An immediate problem here," he writes, "is that while viruses have repeatedly been isolated from what has been called in India *Culex 'vishnui'*, it now appears that at least four species are passing under that name and the females cannot as yet be told apart." Seems to us that Vishnu was famous for having had some nine reincarnations. Wasn't there something about telling them apart by the number of arms, Harold?

THE BULLETIN OF THE LOUISIANA MOSQUITO CONTROL ASSOCIATION comes to us from the desk of Ted Raley just in time to make this issue and to make a good start, too, for mosquito control in 1959. Things are really humming down there on the Old Bayou, where the first annual meeting was scheduled for the L.S.U. campus on the 24th of January. In the November elections, the voters ratified a Constitutional Amendment which authorized the "police juries" to set up mosquito control districts supported by *ad valorem* taxes. The vote on this amendment was quite lop-sided, as the Bulletin notes, some parishes going heavily for while others went almost as strongly against and some stayed mighty near the middle, though approving; so the battle is just begun. However, the Plaquemines Parish Police Jury (where the vote was in favor almost 17 to 1) led off by paying sustaining membership dues of one thousand dollars to the Association. For the benefit of the uninitiated, a Parish is a County, sort of, and a Po-lice Jury is the County Commission. The Orleans Parish voted official endorsement of the scientific program of the LMCA, devoted to survey and pilot experiments in control techniques for Louisiana areas, and in keeping with its scientific interest, the LMCA Bulletin devotes considerable space to discussions of the work of other mosquito control associations and workers. AMCA'er E. B. JOHNSON, the Public Health Entomologist of the Louisiana State Department of Health, and a member of the Louisiana Association's Technical Advisory Board, was headlined in the Who's Who section of the issue of the Bulletin Ted Raley sent us. Bon voyage, LMCA!

GEORGE THOMPSON OF THE JEFFERSON COUNTY (TEXAS) MOSQUITO CONTROL DISTRICT has been promising further information on his use of BHC dusts in adulticiding and we have just received his rundown on last season's work. This business of using dusts has, of course, been receiving more and more attention, as we have previously noted here. Following its very successful use in overseas military areas and occasional reports on it from this country, LCDR Bob Du Chanois ran some extensive comparative tests and reported on the dusts quite favorably. Meanwhile George Thompson's extensive use was arousing more and more interest, and we are delighted to present a summary of it for those who have been asking.

George's trucks are all one-man operated, essentially half-ton pickups with heavy duty springs and turbine duster units mounted on the body with their own power from 8 HP, 1 cylinder engines. Large hoppers are used, which hold three 50-lb. sacks, and George says he is shooting for a hopper which will hold four or five sacks. He says, incidentally, that though it may seem odd, the flat slope is better than the steep one on a large hopper. He didn't say if he used an aerator unit to fluidize the dust and it would be interesting to try it, if he hasn't. Controls of the unit are extended through the cab into the truck and, except for a roving mechanic, one man per truck is all that is needed.

Trucks cruise at a speed between 10 and 15 mph and the dosage is two sacks of 5 percent BHC dust per three miles. This gives a rate of just under 0.1 lb. per acre (approximately) and by carrying 24 to 26 of the 50-lb. sacks, the trucks can carry on a five hour operation from sunset to about 11 or 12 p.m. George says he uses the 5 percent dust because it is actually cheaper than the 3 percent.

In 1958, the costs of operation were about $5.90 per cwt, for the dust, $1.75 an hour for labor, or a total of about $3,932.78 for 8,920 miles. With a swath width of 200 feet, they reach about 25 acres per linear mile, and this figures to an average of $0.113 per acre, and includes everything. George says he had lower costs on automatic transmissions than gear shift trucks, too! Thanks for the interesting info, George!

The Northeastern Mosquito Control Association held its fifth annual meeting on February 19 and 20, 1959 at the Somerset Hotel in Boston, Massachusetts. The program included papers on mosquito control legislation, granular insecticides, eastern equine encephalomyelitis, water resources, and current field problems in mosquito control. Dr. William Jellison, U.S.P.H.S., discussed arthropod-borne diseases of animals.

The following officers were elected for 1959–1960: President, Hugo Jamnback; Vice President, Robert Armstrong; Second Vice President, William Maynard; and Executive Board Member for three years, Edward Duda.

LIST OF ADVERTISERS