

NEWS AND NOTES

HAROLD F. GRAY IS RECOVERING NICELY FROM A RATHER SERIOUS OPERATION ACCORDING TO DICK PETERS, A.M.C.A.'s 1955 proxy, who writes:

"The day of retirement barely came in time for Harold F. Gray. Although appearing to be in good health as reflected by his cheerfulness at the Annual Conference in Los Angeles, he actually was only scarcely a month away from a serious operation. A kidney infection resulted in Harold having to submit to a nephrectomy on March 3. The graveness of his condition was illustrated by the decision to operate, even though he had a low-grade fever at the time. Harold's post-operative period was complicated by a severe bout of hiccoughing which persisted over a week and inevitably drew upon his storehouse of strength. In fact, Harold describes the experience as a 'mighty close squeak.' Those of us who know Harold well attribute his recovery to his rugged determination and resolution to realize at least twenty years of fiscal return from his retirement. Others believe he made the grade on his cussedness alone. In any case, we are pleased to inform his many friends that Harold is now convalescing and recuperating in his retirement rancho, Box 3081, Woodleaf Star Route, Oroville, California. Of course the welcome sign hangs out."

MARVIN C. KRAMER, formerly manager of the Tulare Mosquito Abatement District, will depart soon to a new position as assistant to E. Chester Robinson who, as noted last month, is the new manager of the Alameda County District.

AL WEST, who has been on a year's assignment at Camp Detrick, Maryland, returned to Canada the latter part of April.

BEN KEH, reports in the April issue of *California Vector Views* that a gynandromorph mosquito was taken near Manteca, California, during an encephalitis virus recovery survey, by one of the workers of the Bureau of Vector Control. "This *Culex tarsalis* specimen," Ben reports, "has the genitalia of a male and, instead of the bushy antennae characteristic of a male, it has the more sparse and reduced antennae typical of the female. The palpi are short as in a normal female. A more detailed study of this specimen is contemplated in the near future. Gynandromorphs are quite rare. Their scarcity may be gauged from the small number of these freaks recorded from the millions of mosquitoes taken and examined by entomologists all over the world."

A FURTHER NOTE ON LIGHT TRAPS appears in the same journal and is of interest to control operators in connection with last month's discussion. During the period from 24 August through 23 October, 1953, three light traps were operated, one from 7 to 11 p.m., one from 11 p.m. to 3 a.m. and one from 3 to 7 a.m. On a

number of occasions mosquitoes were seen resting on the illuminated surface of the adjacent building, neither active nor further attracted to the light. The smaller numbers of mosquitoes caught from 3 to 7 a.m. were not necessarily an indication of a reduction of mosquitoes in the area, this seems to indicate, and, in fact, on some mornings as many mosquitoes were seen resting in the immediate vicinity of the traps as had been caught in them.

FROM DON PLETSCH, A BELATED NOTE ON THE BAGUIO CONFERENCE comes via a letter which he sent to the American Society of Professional Biologists, and relayed by them to us. Don relates that some attention, though hardly enough to satisfy a fanatic in control, was paid to the problem of efficient application of insecticides in houses. "There seems to be a general impression," he says, "that all one must do is to place a sprayer in a laborer's hands and say, 'Now act like a spray-man' and he does so automatically. This is far from true here in Formosa. I am increasingly suspicious that the instances of reported non-effectiveness of DDT may not be due so much to vector resistance or changes in vector habits as to sloppy spraying jobs during the field work." This seems worth thinking over in any part of the world where more and more careful application methods will be needed to counteract such resistance as may be appearing. Don adds that their program has given direct protection to 5½ million people during the 1954 operations.

H. BARNES, QUOTED IN THE ALAMEDA U. S. NAVAL AIR STATION'S THER-MAL AIR-O-SOL, asseverates that we should tell people our slogan in a punchy rhyme:

SO THERE YOU ARE
Slap a mosquito, trap a rat
Good idea, of course,
BUT
To most effectively combat
GIT-'EM at the source!

A fellow who can split an infinitive so wide open at one blow ought not to have much trouble convincing folks he's man enough to tackle a mosquito.

THROUGH THE COURTESY OF BRUCE BROCKWAY JR., OF TOLEDO, a stenographic record of the case of Richard Calaway, *et al.*, vs. the United States of America, has been made available to us. This case covered the liability of the Government in obscuring a highway with a fog which was being created for mosquito control at the Erie Ordnance Depot. The fog drifted over the highway without warning, a truck entered the fog and immediately slowed down, whereupon a following passenger car struck it with such force that the car was demolished and the passengers injured.

The Court found that the driver of the car was not negligent, after the truck driver testified that he himself had not been able to see the fog until he had entered it and that the following car could not have seen it in time to have slowed down and avoided the collision. On the other hand, the Court cited a number of precedents where those who created obscuring smokes and fogs had previously been adjudged guilty of negligence. Damages were awarded both to the injured car passengers and to the insurance company which reimbursed the loss of the car.

This case is of interest to all those engaging in fogging operations since they are warned thereby to guard against negligence in obscuring highways. Everyone is aware of the danger which is created when children follow a fogger and dart in and out of the fog with a high likelihood of their being injured by passing cars. But not everyone thinks of the need to arrange police permission or warnings to motorists on nearby highways toward which the fog may blow.

FROM THE ARCTIC HEALTH RESEARCH CENTER IN ANCHORAGE, ALASKA, BILL FROHNE contributes a note on the occurrence of mermithid parasites in Alaskan mosquito larvae. The Jenkins & West article in Mosquito News 14(3) reports that the northern larva most frequently infested with mermithid worms is *Aedes communis* (DeG.), and that in the course of their studies in Canada they also found individual parasitized larvae of *A. nigripes* (Zett.) and *nearcticus* Dyar. In six seasons of larval surveys in Alaska, Bill has found mermithid parasites of *communis* wigglers three times: (1) In temporary potholes in a spruce bog at Liberty Falls near Chitina, June 3, 1953. (Unfortunately the wigglers from several of these potholes were combined and it is uncertain whether the *communis*, which were heavily infested, developed in the same water with *A. dianaeus* and *pionips* of the collection, which were all free of parasites.) (2) In a semipermanent, boggy pool below Herbert Glacier near Juneau, Alaska, June 6, 1952. Four species of *Aedes* larvae were dipped, of which three—*communis*, *cinereus* Mg., and *pionips* Dyar—were parasitized. The wigglers of the former two species, respectively 17 and 3, were all positive, usually with 2-3 worms coiled transversely in the thorax. *A. pionips*, a later mosquito, was mostly in the second instar and these small larvae appeared to be negative, but a single large third instar *pionips* had two mermithids. (This collection was rechecked recently to confirm the identifications and to corroborate the negative status of *A. hexodontus* Dyar, the fourth species present. An earlier larval collection of May 15, 1952 from the same pool, composed of second and third instar *communis* wigglers was re-examined along with four early June larval collections from neighboring ponds. All these larvae appeared to be negative.) (3) One mermithid in an *A. excrucians* (Wlk.) fourth stage larva collected May 19, 1954 was taken from a semipermanent *Carex*

pond near Copper Center. Five other collections, all completely negative, had been made in 1953 in this pond including (of northern *Aedes* besides *excrucians*) *communis*, *fitchii*, *dianaeus*, *cataphylla*, *punctor*, and *stimulans*.

JOHN A. MULRENNAN, DIRECTOR OF THE BUREAU OF ENTOMOLOGY OF THE FLORIDA STATE BOARD OF HEALTH, has announced that the new entomological research center four miles south of Vero Beach in Florida's East Coast Indian River County is scheduled for completion in May.

"Although the new research center is located on the lower East Coast," Mulrennan explained, "it will be an 'All-Florida' project designed to serve all the state's insect control districts and projects.

"Its primary purpose will be the practical application of scientific knowledge to programs designed to kill as many mosquitoes and other insects of public health and economic importance as possible at the lowest reasonable cost.

"Although our knowledge of the habits of mosquitoes and other biting insects is fairly extensive, there are still a number of unanswered questions where good, economical control measures are concerned. It will be the responsibility of the new research center to determine the answers to these questions and to pass on the information to the state's mosquito control districts and various county health department projects in this field.

"We feel the contributions this new research center can make in effective control measures will speed the day when Florida will at least be relatively free of insects which offer a threat to the state's health and economic development."

The new center, a two-story concrete block structure, will contain offices, laboratories, special insect-breeding rooms, storage space for supplies and equipment and other facilities for entomological studies.

Dr. Maurice Provost will be in charge of the research center.

CALIFORNIA VECTOR VIEWS has in its March issue an interesting discussion of mosquito (and fly) source reduction with liquid manure systems, which should be of value even to those areas where dairying is not a big industry.

"A number of years ago," the report says, "the worst producers of house mosquitoes in the Delta Mosquito Abatement District were the sewage disposal plants of the various cities in the District. Through the active cooperation of the cities, the mosquito problems at sewage plants have been reduced to a very minor matter. Following the elimination of these major sources, dairy drains have emerged as one of the most important producers of house mosquitoes. Several very serious outbreaks this past summer have been traced directly to dairy drains. The impossibility of controlling these mosquito sources with insecticides means that, unless we can obtain changes in certain existing practices before next summer, we are likely to have a very troublesome year.

"Dairymen must wash their cows and their barns in order to produce the high quality, clean milk which we demand for ourselves and our children. This liquid manure, including necessary water for washing the cows and barn, amounts to about 22 gallons per day per cow." The report goes on to describe control of the problem by means of pumping the liquid into a septic tank or irrigation stand-pipe, from which it flows to fields for irrigation and fertilization rather than standing in swampy puddles under the manure-induced heavy vegetation, an ideal breeding source and one of the most difficult to control.

THE EURASIAN WATER-CHESTNUT of Water Caltrop, *Trapa natans*, is now re-established in the upper Chesapeake Bay. Francis M. Uhler of the U. S. Fish and Wildlife Service has reported that four separate beds totalling about 100 acres in the Gunpowder River Area were observed in 1954. A rapid increase in the infestation can be expected unless prompt action toward eradication is taken.

Navigation, aquatic wildlife, and recreation in the fresh-water section of the Bay are threatened. The floating plants choke shallow areas and provide ideal conditions for mosquito breeding. The nuts produced by Caltrop are spined and prevent the use of beaches by swimmers.

The infestation in the Potomac lasted for about twenty-five years and was controlled by underwater mowers operated by the Army Corps of Engineers. Over \$500,000 was spent for cutting, and mosquito control by the Public Health Service was also very expensive. Mr. Uhler has stated that the infestation if uncontrolled is certain to be a major disaster. This is no exaggeration.—William E. Bickley

THE ILLINOIS MOSQUITO CONTROL ASSOCIATION, dormant since 1951, was re-activated on February 23 and 24, 1955, with a meeting at the University of Illinois, in Urbana. Representatives were present from eight of the eleven active districts in the state, as well as from community mosquito control groups, state and local health departments, the State Department of Conservation, the Natural History Survey, the University Department of Entomology, the Agricultural Experimental Station, and several commercial concerns.

An informal refresher course in mosquito classification was held Wednesday morning under the direction of the Department of Entomology with an overflow attendance.

The program included a series of papers on the general subject of Standardization and Evaluation of Mosquito Control Operations. Those participating included Mr. C. F. Scheel, North Central Regional Director of the A.M.C.A.; Franklin C. Wray, Des Plaines Valley District; Dr. William R. Horsfall, Professor of Entomology, University of Illinois; Oscar V. Lopp, South Cook County District; and Dr. F. Earle Lyman, Associate Professor, Southern Illinois University.

Papers were also presented on the "Distribution of Mosquitoes in Illinois" by Dr. H. H. Ross,

and on "Insecticides for Mosquito Control and Resistance to Insecticides" by Willis N. Bruce, both of whom are in the Natural History Survey.

At the business session, presided over by Thomas J. Lynch of the North Shore District, the following officers were elected to constitute the Executive Committee for 1955:

- President Franklin C. Wray
- Vice-President Ralph K. Gibson
- Secretary-Treasurer ... James D. Williams
- Members-at-Large Thomas J. Lynch
William J. Buchanan
George N. Willard

Tours were also made through the University Department of Entomology and the Illinois Natural History Survey.

FRED H. STUTZ SENDS IN A NOTICE FROM THE BRAZORIA COUNTY, TEXAS, CHAMBER OF COMMERCE THAT AN ORGANIZED MOSQUITO CONTROL PROGRAM is being set up in that county. A clipping from the *Daily Facts-Review*, which they sent Fred in thanks for his advice and assistance, starts off, "Brazoria County voters approved by more than two to one the setting up of a mosquito control district in the county." The story continues with a discussion of the background of the movement and states that the Brazoria County Commissioners Court will now appoint a five-man board as governing body of the new district, which will hire a general manager and entomologist to run the program. Voters in all but one district were strongly in favor of the proposal and of setting up a levy of 5 cents per \$100 valuation tax to finance the mosquito program.

THREE MORE ITEMS FROM CALIFORNIA which are of general interest: The summary of registrations at the joint meetings of the A.M.C.A. and the California M.C.A., at Los Angeles, shows that 169 of the registrants were from California, most of them from mosquito abatement districts, while 85 were from other states, Canada, the Rockefeller Foundation, the Pan American Bureau and various agencies of the Federal Government and the Armed Services.

From 22 to 25 June, 1955, the 39th Annual meeting of the Pacific Slope Branch of the Entomological Society of America will be held at the Mission Inn in Riverside. The program will contain invitational papers of subjects of current importance, submitted papers, movies and assorted entertainments.

Alameda County reports that they filled 1,282 tree holes with cement and sand this year to prevent breeding of *Aedes varipalpus*, which had been found in 201 of the holes. This is an aspect of pest mosquito control which is overlooked in the mosquito control of many localities, for a few hole-breakers can make the whole program seem ineffective.

AMONG OUR WHO'S WHO IN A.M.C.A. we had hoped to bring you in this issue all the dope about our 1955 prexy, Dick Peters. Dick, how-

ever, in his modest way didn't put anything on his form but his address, so while we are waiting for our threatening letters to bear fruit, a quick search of the file shows that A.M.C.A. has more than enough notables to fill even the gap made by Dick's absence.

Our first notable was born on a ranch at Virginia Dale, Colorado, in January 1884 and received his B.S. and M.S. at Colorado Aggie, moving on for a Ph.D. at Ohio State. He taught at the University of Maryland before going to the U. S. Department of Agriculture, where he served with distinction as an entomologist, rising to head the Division of Insects Affecting Man and Animals and to become Assistant Chief of the Bureau of Entomology and Plant Quarantine. Under his guidance much of the military program was staffed during the war and research was done on materials and techniques of military importance. He is a member of various scientific societies, and has been president of the Washington Entomological Society, the American Association of Economic Entomologists, the American Society of Parasitology and our own Association. He is now coordinator of Pink Boll Worm Research at the Oscar Johnston Cotton Foundation, Brownsville, Texas, but retains an active interest in mosquito control. DR. FRED C. BISHOPP, that is, of course.

EDWARD F. KNIPLING, who followed Dr. Bishopp in many of his footsteps, including chiefship of the Division of Insects Affecting Man and Animals of the Bureau, and who has been President of the American Association of Economic Entomologists and is now Chief of the Entomological Research Branch of the Agricultural Research Service of the U. S. Department of Agriculture, was born in March of 1909 at Port Lavaca, Texas, and raised on a farm. His undergraduate work was done at Texas A. and M. and he received his Masters Degree and Ph.D. at Iowa State College. He headed the laboratory at Orlando, Florida, during the war, at which time the use of DDT was developed and repellents 612, 622 and others were originated there. This laboratory, which consisted of a good-sized group of high-powered specialists, turned out findings at such a rate that the Armed Services were put to it to apply their findings and industry had difficulty keeping up production, but they worked modestly and without fanfare and much of the resulting publicity passed them by. Although Knip has received numerous medals and citations and is well-known for his work on cattle grubs and horn flies as well as mosquitoes, he is quietly proudest, perhaps, of his prowess as a hunter with bow and arrow. Three deer have fallen to his arrow in recent years but he says he won't reveal how many got away "because of 'Buck Fever.'"

A. W. A. BROWN, who manages to be known to a large number of people as "Tony" in spite of his awesome crudition, was born in 1911 in England. He received his B.S. in 1933 from the

University of Toronto and went on to his M.A. and Ph.D. in 1935 and 1936. He is author of two books: "Insect Control by Chemicals," in 1951, and "Entomology: Medical and Veterinary," in 1954. By way of accomplishments, part of the list includes the Canadian Forest Insect Survey, a military Majority in the Directorate of Chemical Warfare, now the Defence Research Board of Canada, of which he is still a member of the entomological panel, the National Research Council panel on Vectors of Disease, the WHO Expert Committee on Insecticides, and the Executive Committee of the Xth International Congress of Entomology. He has been chief of the Department of Zoology of the University of Western Ontario since 1947, is a member of the Royal Society of Canada, the editorial board of the Annual Review of Entomology and the Entomological Societies of Ontario and of Canada. As a crowning achievement, naturally, he is the Regional Director of A.M.C.A.

YOUR NEWS AND NOTES EDITOR claims no eminence but it's a good thing he gets around pretty well all over, because WILLIAM C. REEVES is another A.M.C.A. notable who modestly left off half his accomplishments. Fortunately, the facts were known and we just want the facts, ma'am. Bill is a Californian who received his Ph.D. from the University of that State, where he first entered mosquito control activities in 1938. With the Hooper Foundation and the University of California School of Public Health, where he is now a professor, Bill has been doing research in tropical medicine, epidemiology and insect transmission of disease ever since. In 1947 he was instrumental in pinpointing an epidemic of what appeared to be encephalitis in Guam and which had the local control people, who had previously been sort of ignored, in a feverish blaze of activity and unwonted attention. He supervised an intensive survey on the part of military and civilian agencies and uncovered the presence of the first anopheline on Guam, *Anopheles subpictus*, and of a new dengue-carrier, *Aedes albopictus*, both presumably introduced since the war. Through his supporting testimony, the Navy program of control was considerably augmented and the Army and Air Force established control sections and set up a permanent position for an entomologist. Bill has acted as consultant to the Surgeons General of the Public Health Service and the U. S. Army, and in 1954 toured Army installations where his practical recommendations were widely acclaimed for their helpfulness and the sound understanding they displayed of the problems confronting them.

GOOD NEWS HAS BEEN RECEIVED FROM PRESIDENT CARL A. NAU OF THE GALVESTON COUNTY, TEXAS, Mosquito Control Association. He states that the County Judge has found an additional \$12,500, thus providing \$40,000 for the initiation of the newly organized anti-mosquito work in

Galveston County. Bill Cox has been appointed Director of Mosquito Control and Dr. Don Micks as Technical Consultant.

It will be recalled that the Galveston County Mosquito Control Association was organized on July 29, 1953 (Mosquito News 13(3):216), and that the voters approved the establishment of a Mosquito Control District at an election held November 7, 1953 (Mosquito News 13(4):264). Delay in providing funds to start the work was due to the fact that the County was levying the maximum permissible tax in the general fund.

Dr. Nau states that neighboring counties are "looking across the fence" and that the favorable action in Galveston County may cause them to move in the same direction. Dr. Nau writes on May 17 that the Judge of Orange County has called a meeting of representatives of all Texas coastal counties in Orange on May 18 and that four from Galveston are going to attend.

This forward movement along the Texas coast is definitely favorable for the forthcoming meeting of the AMCA in Beaumont on February 5-8.—F. C. Bishopp.

ORANGE, TEXAS. F. J. VON ZUBEN, JR., Senior Sanitary Engineer, Texas State Department of Health, has sent the following information on the meeting in Orange, Texas, on May 18, 1955. (See above note from Dr. Bishopp.)

"The Honorable Charlie Grooms, County Judge of Orange County, called a meeting of officials of Texas Gulf Coast Counties to discuss the mosquito problems common to that area of the State. Approximately 40 interested officials were in attendance from Orange, Jefferson, Chambers, Galveston and Brazoria Counties. Among the more important officials were the following: Charlie Grooms, County Judge of Orange County; James A. Kirkland, County Judge of Jefferson County; F. E. Williams, County Judge of Chambers County; Alton C. Arnold, County Judge of Brazoria County; Carl A. Nau, M. D., Chairman, Galveston County Mosquito Control Assn.; Paul R. Meyer, M.D., Chairman, Jefferson County Mos-

quito Control Assn.; P. J. Gurklis, Chairman, Health and Sanitation Committee, Brazoria County Chamber of Commerce; (also a representative of Dow Chemical Company of Freeport); and H. H. Key, M.D., Director, Orange County Health Unit, Orange, Texas.

"After an address of welcome and a few introductory remarks, Judge Grooms turned the meeting over to me. I suggested that consideration be given to the formation of Texas Gulf Coast Mosquito Control Association, pointing out that this would be an excellent means of exchanging technical information, as well as accomplishing other desired objectives. After some discussion, the motion was made and favorably voted on by those present. Jefferson County Judge Kirkland was elected temporary chairman, and Orange County Judge Grooms was elected temporary secretary. A committee consisting of the five interested county judges was appointed to work up rules and regulations governing the activities of the Association. Judge Arnold, Brazoria County, invited the Association to hold its next meeting in Brazoria County. This was approved, and it was agreed that Judge Kirkland would set the date for the next meeting and notify all concerned.

"Next, the pressing problem of enabling State legislation was thrown open for discussion. It was the general consensus of opinion that old H.B. 127 was grossly inadequate, and that a constitutional amendment would be needed before the counties could adequately finance effective control programs. Those present instructed the Association officers and committee of county judges to support the passage of a constitutional amendment in the current session of the Legislature.

"There seemed to be considerable enthusiasm concerning the formation of the Association, and all present seemed to feel that it was a step in the proper direction. It was felt that this Association could form the nucleus of a larger State Association when additional counties become interested in other sections of the State."