NEWS AND NOTES

AUSTIN W. MORRILL, JR.

**WE MENTIONED IN JUNE THAT AMCA doesn’t run ENTIRELY on hot air even though this column may seem to. HARDLY had we sent in our copy when Ted Raley recently issued a list of former AMCA’ers who apparently felt that we do exist without money, or at least could do without them. When we read the list, we were APPALLED! Our first reaction was disbelief, because we know these fellows and they certainly haven’t lost their interest in mosquito control or their feeling of identification with AMCA, either. They just apparently think that AMCA is like the sun, it’s always there and no need to do anything drastic about it, at least not now.**

**We decided maybe the duckhunter types were right when they said we mosquito control characters were dreamy and impractical. Maybe the dear old buddies needed to be brought down to earth and informed that they are now two years overdue or is it understood? But Ted assured us that this simply wasn’t so. They’d told plenty of notice. President Don Minkes says, “There comes a time in our respective lives when we must adopt a mature, responsible attitude concerning our obligations to scientific organizations which represent those areas of our most active interests. Just the fact that we are ‘bus’ hardly justifies ignoring repeated dues reminders. In fact, I know of no other organization that heads over so far backward in this respect as AMCA.” We think he’s right.**

**Well, next reaction was to print the list right away and ask all friends and cohorts to do what many of the Regional Directors have already done, and write or talk to the delinquent brethren, exhorting them to ante up.**

**But we won’t. Ye Ed probably wouldn’t let us, anyway. Blackmail, you know. Laws. Good taste.**

**But sure as we’re sitting here, these fellows don’t really mean to ditch AMCA. They just don’t believe it makes any difference if they’re a year or two late. It can’t be the last ol’ mesquite eight bucks. These guys ain’t that poor. And heck, no professional organization can know of his dues any better than in the Journal that’s worth as much. (Ye Ed was worried that maybe some members are dissatisfied with Mosquito News but refrains from saying so but surely everyone knows that constructive criticisms are valuable and welcome. We’re not exactly unbiased, of course, but personally we think the News gives us a good blend of scientific and “practical” . . . and without excessive page charges or any fancy grants from charitable foundations, at that. Of course, we could use a few more contributions to Operational Notes . . . ) Well, so we had to drop a few fine old names. And, although new members (at two to one) make up for it fairly handsomely, nevertheless it saddens us. They’re beginning to trickle back, the black sheep. Maybe they’re all in by now. We hope so. But if any of ye’re guys out there don’t get this issue . . . How about mailing in your note? Sure, you can live without us . . . but who wants to? (If you can’t hear me, raise your hands.)**

**OUR ANNUAL MEETING IN MARCH AND IN CHICAGO SHOULD BE ON ALL OUR MINDS and Francis Cleason sends us a short letter to let us know that it is very much on Chicago’s mind. He refers a brochure to “familiarize you with the Paulist choristers” of which he and his son Pat are members. We need no introduction to this famous boys’ choral group, Frank, and we eagerly look forward to joining the thousands of every denomination who annually hear them. Which is a roundabout way of saying that anyone who reaches Chicago before noon on Sunday will be in for a rare treat if he will hasten right over to Old St. Mary’s for the 12 o’clock services. It is but a short walk from the Pick-Congress Hotel, Frank says. (Down, Frank? Upwind, better take a cab, hey?) The Choristers have sung in many cities of this continent and Europe since their founding in the early years of the century and they have been heard on radio and TV on many occasions. So plan to come to Chicago early!**

**Those of you who are Army Reservists may be interested to know that we are trying to get recognition for AMCA meetings as reserve points source. There is little about mosquito control that does not have a distinct military bearing and much mosquito control and research is, of course, being done with active military participation. For this reason, it seems natural to ask for accreditation which will mean that all Reserve attending AMCA meetings will be able to sign attendance rosters and get points. Three or four points aren’t a lot, of course, but they ain’t bad, either. We hope all you Reservists from aging Colonels down to spring-cooper Shavelins, will take advantage of this. Of course, it’s not in the bag yet, but if everyone gets his Title in to Dr. Brown on time, we’ll push all we can. The deadline for submission of titles is Dec. 15, so this notice is too late to help in that regard, but we urge you to attend and we’ll let you know about the credit. There should be plenty of military interest, as we said at the start. Are you with us?**

**Ted Raley hasn’t sent us only bad news**
by any means. For instance, he reports that Dr. Tony Brown estimated Ted's district has about 14 years more in which it can profitably use organophosphorous compounds before Dat Ole Dubul Resistance catches up with it. Resistance is a mighty spotty thing and Ted isn't saying he's not just lucky. On the other hand, he says, he does a lot of boom spraying to clean up the residual adults in agrarian field sources and he stacks off the pressure on the larvae by using oil whenever circumstances permit. Keeps 'em sort a groggy. Ted also sends along a report from President Mcika that there is now a new mosquito control program in Mississippi and Kentucky has passed proper legislation to form mosquito abatement districts: he, in fact, started one in Hopkins County. In Utah, the Cache Valley program has been expanded and has funds in hand for a reasonably complete program in that area. In Yerington, Nevada, a dairy valley oasis, the farmers have had irrigation water long enough to be no longer drunk on it and are beginning to mull over the advice Don Murray gave them some time back. Unlike as it may seem to many at this time, this may lead to something. The Word is getting around.

On the other hand there are still a few places that haven't heard the latest word, exactly. An article in a Baton Rouge, Louisiana, paper dated 5 July, 1963, for instance, sent to us by Bill Bickley, recounted how the cattle were dying from mosquito bites and had to be kept from the fields and fed baled hay, and added, "City officials this week offered another solution to the problem. They proposed spraying oil over the breeding grounds in an attempt to stop the breeding. Before they adopt this radical innovation, perhaps the reporters should consider reading some of Prof. E. S. Hays' remarks on the subject, particularly his letter of 5 September, perhaps sparked by the aforementioned newsclip which, while aimed toward Louisiana conditions, is a masterful summary of the whole art of mosquito control. (Ask him for a copy.)"

While Louisiana was having rain after a long drought, and all the mosquitoes, George Thompson was just having the drought, but he made up for lost time in mosquito production when he had Hurricane Cindy. In one 24-hour period, Cindy dropped 13.29 inches of rain and totaled 16.12 inches during her five-day run. Aerial spraying and acelidical dusting were accelerated after the storm and George managed to hold his own and even get a few rounds of applause. During one 36-hour period, his mosquito control turned into a fire-fant control operation as great rafts of ants, some of the rafts as big as 10 x 25 feet, drifted into the levees and swarmed ashore. Malathion was used and the workers sanctifying the levees were saved. Mosquitoes showed up far from home, too. A light trap at Port Arthur collected 800 female and 640 male Aedes sollicitans and the nearest breeding area was four miles away. "The Aedes sollicitans showed up in Beaumont with a 34/22 ratio of females to males and Aedes punies males outnumbered females 8 to 1 as shown by George, saying that for some reason the landing rates beat the light traps all hollow. They were probably just glad to be set down, George, don't you know?"

Dr. Fred Bishop sent a letter in August to say that he and Mrs. Bishop reached 328 Sixth Street, Manhattan Beach, California, their new home, after having covered the 2760 miles from Ft. Myers in four days. They took off almost at once for Rio and the Seventh International Congress of Tropical Medicine and Malaria, which was held from 1 to 11 September. In late September, Dr. Fred attended the National Pest Control Association meetings in San Francisco (and visited their daughter) so Manhattan Beach hasn't seen much of the '63, but it invited us a report on his earlier trip.

The Bishops have been looking for a good excuse to tour South America and that excuse came when Dr. Fred was invited to present a paper at the above-mentioned International Congress. The paper was a joint one with Wayne Miller, outlining the organization and work of the Lee County (Florida) Mosquito Control District and the District's movie was shown twice. Among the AMCA representatives were President Micks, Bill Sherry and George E. Brown. The eleven days of the Congress were well filled, with as many as five simultaneous sessions at times. Essentially every facet of tropical medicine was treated in the approximately 400 papers and discussions. Before and after the meetings, Dr. Fred and Mrs. B took looks at Guatemala City, Caracas, Panama City (Panama... not Florida), Brazilia, Sao Paulo, Montevideo, Buenos Aires, Santiago, Lima and Mexico City. Dr. Oswald Fortinetti, Regional Director for the countries in the South showed them some of his interesting work and the facilities of the University in Sao Paulo and many old friends from all over the world were warmly greeted. Dr. B. gave up his work in Florida most regretfully but says they are no getting settled down in California and will be happy to have AMCA's drop by.

Meanwhile Dr. Forsett's exact research is not reported but Bill Bickley reported that they, at the University of Maryland, had had a most enjoyable visit from the Doctor. He had attended a meeting at Gainesville, Florida, and spent a couple of days in the Washington area as well. Since he is very much interested in the neotropical mosquitoes, he was considered help to Ralph Brain, who's studying them in the Aedes (Coelo) category.

Another AMCA's who is taking up again his peripatetic ways is Don Fleisch, who left his "most agreeable" assignment in Mexico after some seven and a half years and wrote us from Copenhagen on route to become Chief of the
WHO Malaria Eradication Certification Team to Spain, where indigenous malaria cases have been at the near-zero point for several years. He and Mrs. Pletsch arrived in Geneva after a “coffee break” stop of 2½ days in Paris (these old-hand travellers don’t mind dallying for only a moment in Paris... they’ve been there before... us, we’d need 2½ hours!) The team will be completed in about a month, so Don and the mission is probably back in Mexico D.F. by now, and reading for the next move. Besides a plug for WHO’s “Practical Entomology in Malaria Eradication,” Parts I and II, Don sent us also a clipping from the Minneapolis Tribune, all about Al Brazilian.

Headlined “Mosquito Fighter tries to eliminate sting of summer,” the half-page spread tells how Al attacks the problem, mainly with larvicides. Al’s District covers over 2,850 square miles, mostly above water, but containing some 2,700 breeding sites of some 418 square miles. It was evident from the reporter’s comments that much of what Al had to tell him was startlingly new, particularly the facts about mosquito specklation and zoophilic. Al got in a good one we can all use when he added that organized mosquito control is actually a protection for wildlife and prevents undue contamination of the environment with insecticides by reducing mosquito populations with proper applications and thus reducing the amount of wild and uncontrolled application of materials by amateurs. A good thought there!

Archie Hess has the distinction of being an AMCA’er who has moved without moving. It’s this way. On July 1, 1963, the Communicable Disease Center of the U. S. Public Health Service established a new Disease Ecology Section. The primary mission of the Section is to conduct research on the ecology and control of selected communicable diseases, with particular reference to the western states. It is also concerned with vector and other health problems associated with the development of water resources and outdoor recreational areas. The new Section is headquartered at Greeley, Colorado with two field stations: The Plague Research Center at San Francisco and the Encephalitis Research Station at Berkeley, California. Who but Archie to head all this? So...

Chappie (Dr. H. C.) Chapman needed all of his famous eternal youth this summer when he stepped over a silent rattler nearly as big as Chappie himself and the rattler, defying the books, quietly sank his teeth into Chappie’s heel. Like Achilles, the kid almost did Chappie in but in addition he had a severe anaphylactic shock and durn near didn’t come out of it. But as they say, it was the snake that died and Chappie is now once more bouncing about on deck, despite a slight limp and a pronounced distaste for snakeskin shoes, wallets and belts. And all hands in AMCA are mighty happy we still have Chappie with us, we need’t add.

The California Mosquito Control Association is distributing at cost a resistance test kit developed by Tony Brown and the California Bureau of Vector Control, whose AMCA membership is too numerous to mention individually. These kits may be had from Dr. Don Murray and the coordinator of the program is Larry Lueallen. The kits contain measured dosages of parathion and a blank and the paraphernalia for making dilutions and all the necessaries. The program is based mostly on Aedes aegypti and quinupristin, for instance. All data should be funnelled through Larry, please.

Unimpeachable sources have revealed that the secret of Charlie Judson’s amazing success in clearing specimens used in his studies is... Clairoll! So TV viewing does pay off. And now we can envision even the mosquito gals as saying, colloquially, “Does She or Doesn’t She?” (No Adv.)

Dr. Bob Wallis spent a good bit of the summer in the Yale “Aboriginal” Team Field Studies, in his capacity as Chief of the Section of Medical Entomology of the School of Medicine of that renowable University, the studies being centered in Beaufort County of South Carolina. Besides some very flattering things to say about the malaria control program at Parris Island Marine Base (which made us quite puffed up, though we had nothing to do with it), Bob gave us some interesting dope on the program in conjunction with A. A. Marsh of Beaufort County Health Service and Frank Arnold of the State Department of Health. In their aerial spray program, by very carefully timing their applications of malathion to limited areas, they were extremely successful in knocking out the mid-summer build-up of both pest and potential encephalitis vector species.

Dick Peters had the pleasure of playing host to two of the French doctors whom he had visited at the University of Montperry, France, at the end of his sessions with WHO earlier this year. Dr. Jean A. Rieux, Director of the Malaria Control program on the Mediterranean shore of France, Professor at the University, and ardent exponent of modern mosquito control, and Dr. Georges Gras, of the University’s Department of Pharmacy, also visited Delta, Kern and Merced MAD’s (Don Murray, Art Geis and Oscar Loyd, as if you didn’t know) and a number of other places from stem to stern of the Golden State before taking off for the Congress in Rio.

Virginia Mosquito Association’s Skeeter, as we have often said, is so full of goodies we’d have to reprint it all but if you didn’t notice it, we want to draw your attention to one item.
Skeeter had recently, namely, a PESTICIDE LABEL. "The words that make up the label on a pesticide have been called some of the most expensive words in all of literature because the research and development behind them frequently cost the manufacturer more than a million dollars. Pesticides used according to the label are safe. The National Agricultural Chemicals Association has issued a small label in bright red with white letters with a 'stick to anything type' of back. . . . This can be stuck to cans, bottles, equipment and other conspicuous places where pesticides are being used." The sign is octagonal shape . . . and you know what that means, if you've passed your driver's license test. Stop! (Read the label.)

We mentioned Prof. Hathway's masterful summary of mosquito control, and should tell you about another masterful summary . . . Don Murray's report on fly control. Many mosquito abatement districts are finding themselves upgraded into Vector Control Districts by force of circumstances and although some have fought off their Manifest Destiny for the time being, we have an idea more and more mosquito controllers are finding occasion to wonder about hordes and biting gnats and their private lives. Don's Progress Report is based entirely on work in Tulare and Visalia (California) but his comments are so fundamental that the observations would apply anywhere. He might send you a copy, too.

Stop the press! Item from Tony Brown was received as we typed this, namely, a tentative agenda of the Chicago Meetings that looks mighty classy. Symposium No. 1, for instance, moderated by J. N. Leparre, and starring Dr. H. H. Ross, Bill Hancock, and Ken Queran, is on mosquitoes vs. Man, past, present and future. If your crystal ball's getting cloudy, better to get started! Symposium No. 2 is on special problems, such as organization of small districts, finances, control in parks and preserves, methods of control and inter-organization cooperation, and will be moderated by Tony and feature Roy McGee, J. N. Leparre, R. F. Enkempt, Al. Butzky, Frank Warren, Bruce Brookway, Bob Heber, N. F. Otto, and Charles Schell. Symposium No. 3, the Present Status of Insecticides, a perennial and vital problem to us all, is tentatively to be moderated by Bob Metcalf and to include such panelists as Dick Putnam, A. J. Rogers, N. J. Sutherland, Carroll Smith and J. P. Nichol- son, who will carry the discussion from California to Florida and up through New Jersey to the Northeast and range over the contrasts of pesticides with other methods of control and the ultimate fate of larvicides.

Symposium No. 4 is tentatively set to be moderated by Ken Queran and to cover Aedes aegypti, recently of concern with the possibility of re-introduction of dengue by jet age travellers. Dick Putnam will open on breeding and biology in the laboratory, George Craig on the genetics of polymorphism, Hans Schoof on development of insecticides for Aedes aegypti, Tony Brown on resistance in the species, Austin Kerr on eradication work in Latin America and H. Moore on the recent outbreak of dengue in Puerto Rico. A team composed of Tinker, Lie, Brown, Rudnick and Schleienkamp is asked to lead off the comments.

Submitted papers are still coming in but already include one by Harold Grant on the use of consultants; by Bill Forni on late-swimming Culics; by Steven St. John and Law Nielsen on the use of antibiotics as an aid in rearing mosquitoes; Bill Rapp has a paper on sewage lagoons, an increasingly interesting subject as contamination of waterways forces communities to try alternative measures; Ken Knight will discuss the role of soil inorganic chemicals in the selection of oviposition sites by salt marsh mosquitoes, and yours truly hopes to have a moment to discuss military mosquito control operations in relation to the surrounding communities.

We never re-read old columns . . . too depressing . . . but somehow we think we missed telling you that Harold Traverso, whom we didn't know was back from Ponce, has for some time been with the Bureau of Animal Population at the Botanic Garden on High Street, Oxford, England. Col. L. E. Taylor somehow missed getting noted at the same time (June, that is) as having arrived at the U.S. Navy Disease Vector Control Center in Jacksonville, Florida, to take over command from Capt. George Stains when Geo. came to California.

Other movers among our restless membership were Rev. Bob Vanderheyt, who left St. Norbert College in Wisconsin, to go to the Johannes Gutenberg Universität in Mainz (Germany), and K. C. Leong, who went from Caracas to Oficina Sanitaria Panamericana, Caracas: 3117, Avenida Salaverry 722, Luis, Peru. Is there anything livelier, R.C.? We'd sure be pleased and fascinated to have little bitsy notes from you-all guys going to these interesting-sounding far places to tell us stay at homes what it's like out there. How about it? You too, Bob Taylor, over yonder in Haiti on that Agency for International Development project. (This is Bob's second round; his first was some years ago in his pre-Navy and post-Army days, when he served in Bogota, that lovely, sophisticated city, for two years with WHO.)

There's also John Doll, who has moved from Santa Fe to 805 Alexander Highway, Colorado Springs, Colorado, where the Air Academy is . . . you going to indoctrinate the Air Force, John? . . . and Col. Sam Hill has
shaken the clay of Beltsville from his shoes and gone back to his native Dixie with the U.S. Department of Agriculture (70 F. Box 109), Gulliver, Mississippi. Lyman C. Gour has transferred his loyalties from Emi's Volume M. C. D. to Emi's Frontiers, Vol. 48, No. 1, Flagg Beach, Florida, where he is Director, and Gour Love has changed his geography but not his organization, by going from Georgia to the CINC-Pheonix Field Station at 3402 N. W. 7th St., Phoenix, Arizona, a part of town where we used to chase backrubbers and road runners through the campus a long time ago. Lawrence Smith is now the Assistant Director of the Pesticide Control Division of the West Virginia Department of Agriculture, in Charleston, and Ernest Calhoun has gone to the Preventive Biological Operations at the Pine Bluff Arsenal, Pine Bluff, Arkansas. Making considerable progress here are Henry Fuller, who is now at the Medical Medical Laboratory, APO 244 (Harr.); San Francisco, and Dr. Smith, who is now out of APO 271, New York, though still with USAID.

Dr. Yoko Shogaki, who has been with the WHO malaria eradication project in Kathmandu, Nepal, has returned to Japan and his address is now 21, Mamarinda Cho, Shinagawa, Sakai, Kyo, where Capt. William G. Pearson has fixed the laboratory on the Orient and is now residing in the Preventive Medicine Section, Medical Field Service School, Brooke Army Medical Center, Ft. Sam Houston, Texas. (That's in San Antonio. In Texas, you know.) And Capt. Leonard Trager has finished up his chores in Maryland and is now in the Air Force Medical Service School, Preventive Medicine Branch, at Guantán Air Force Base, Alabama.

Dr. M. O. T. Eyenga left New Caledonia a month or so ago and has gone to India, where his address is now 21, Mamarinda Cho, Shinagawa, Sakai, Kyo, Mamarinda Cho, Shinagawa, Sakai, Kyo, where Capt. William G. Pearson has fixed the laboratory on the Orient and is now residing in the Preventive Medicine Section, Medical Field Service School, Brooke Army Medical Center, Ft. Sam Houston, Texas. (That's in San Antonio. In Texas, you know.) And Capt. Leonard Trager has finished up his chores in Maryland and is now in the Air Force Medical Service School, Preventive Medicine Branch, at Guantán Air Force Base, Alabama.

Dr. Saad E. D. Aqchi, still Senior Adviser in WHO, transferred his attention from Saudi Arabia to the WHO Anti-Malaria Coordination Board, P. O. Box 222, Sitra, Kuwait, but in time for the excitement. We guess he just likes adventure. And Capt. Bruce Frischknecht, going in for adventure of the mind, has returned to hustle the books at the Department of Entomology of Purdue, in Lafayette, Indiana.

We'd like to welcome some new members too, whom we sort of neglected in the last two issues. Twenty-eight of them! To Usman Adbulai of the Dept. of Biology, University of Notre Dame, Indiana; John Allen, of P. O. Box 420 (the one number all schoolboys remember, the seventy-five), Denver, Ill.; Dorothy Avent, of the Dept. of Entomology, National Institutes of Health, Bethesda, Maryland; Henry Calhoun, of Tokyo; Richard Baker, of the Dept. of Zoology, University of Illinois, Urbana; John Allen, of the Dept. of Zoology, University of California, 601 Hilgard Ave., Los Angeles 24; Robert Boyce, of Chermeneg, Latham Shipping Center, Latham, N. Y.; Napoleon Keglow, of Heckscher Drive, El. George, Florida; W. A. Collier, of P. O. Box 306, Harlem, Connecticut; Naishu Kawabata, of Tokyo; Robert Connell, of the Veterinary Science Dept., University of Saskatchewan, Saskatoon; Ted Davis, of 304 City and Country Bldg., Pueblo, Utah; John Dowson, of Lake Road, Williamson, N. Y.; James Grome, of the Dept. of Public Works, 730 Winchester St., Monroe, Mich.; James Goodwin, of P. O. Box 721, Tampa, Florida; C. C. Hays, of 3720 Newmark St., Orlando, Florida; Dennis Hartwell, of the North Shore MAD, 62 Frontage Road, Northfield, Ill.; Thomas Jackson, of Gantown Road, RD 6, Sewell, N. J.; Harry Johnson, of 12th Street, Jacksonville, Florida (Say, who knew this guy? Hecksher in Florida?). Charles Kenne, of 1415 Marcus St., Lansing, Mich.; John Lamb, Jr., of P. O. Box 142,018, Norfolk, Va.; Kenneth Libby, of the Dept. of Entomology, University of Maryland; Donald Maynard, of 1415 Athens Rd., Geer, Athens, Del.; N. M. Moschi, of 2, Box 400, Jacksonville, Florida; Gilbert Otto, of Albert Laboratories, North Chicago, Illinois; Donald Payson, of 11204 Americano Lane, Jacksonville, Fla.; 52218 (second zipper?); Miss Ambridge, M. Rejek, of the Division of Natural Sciences, University of Saskatchewan; E. C. Simmons, P. O. Box 1110, Tampa, Fla.; R. J. Smith, Jr., of 720 Peachee St., N. J. (Need we say Atlanta?); J. R. Stevenson, of the Dept. of Zoology, University of Utah, Salt Lake City, (another of the famous Rev. Family? Hurryrt!); Lt. Eugene Thompson, of the Dept. of Entomology, Oklahoma State University, Stillwater; Carl Vowels, of 190 N. Shadow Lane, Fort Myers, Fla.; Dr. Norman Zovata, Head of the Dept. of Parasitology, Indiana University, Bloomington, Indiana; Sister Mary Gerald Leary, of Mt. St. Mary's College, 7201 Chalon Road, Los Angeles 49.

And if we left anyone out or misspelled your name, we're mighty sorry. You try sit right down and write us a letter ... and tell us all about you and what you do and the place where you are. hear? In fact, do it anyway ... even if we didn't forget you or misspell you. And they'll be true fine.

Rob O'Neill sends in the following account of a two-day field trip which was held in New Jersey on July 17-18, 1963, for the purpose of reviewing present representative field study.
conditions and problems in the various urban and suburban areas of the State. The meeting was a special one of the Associated Executives of Mosquito Control Work in New Jersey, but invitations were extended to all in the A.M.C.A., North Atlantic Region as well as others in the East. The attendance was, of course, dominated by the New Jersey group, but representation from neighboring States and the Military was good. In all, 42 individuals registered.

In the morning of each day, the group met at the new Mosquito Laboratory at Rutgers, and then travelled by automobile via various field inspection sites. On the 17th, the Bergen County Mosquito Extermination Commission was host in the morning, and Vernon Conant and Harold Struckman competently demonstrated and described the complex mosquito problems which arise in a highly developed industrial and urban area.

Middlesex County was visited in the afternoon, where Harry Smith guided a tour of the Batan Arsenal, and told of the attending problems of a military installation being returned to civilian use.

Dr. Bailey Pepper opened the evening session at the Rutgers Mosquito Laboratory with a welcome to all, and a discussion of the present and future projects of the State Mosquito Control Commission. A brief description of research at the laboratory was given, and a tour of the building was conducted, by Manley Jenkins and staff.

A two-hour discussion was held following development of an agenda on the basis of questions raised. The principal items covered were: (1) small units for catch basin spraying and the chemicals used; (2) experimental chemicals proving advantageous as residuals in pre-season applications.

Slides of tracked vehicles were presented, and Robert Armstrong introduced a general discussion on the Culex complex and identification needs.

The session concluded with questions and answers on formulations of chemical insecticides. At 9 a.m., on the 18th, the group left New Brunswick and journeyed to the Monmouth County Mosquito Extermination Commission headquarters where the new facilities were inspected, and a demonstration of a tracked marsh vehicle viewed.

The afternoon trip included a stop in Ocean County, where specialized marsh cranes and vehicles were demonstrated by Walter Henderson and staff, and a visit to Earl Potter in Burlington County where salt marsh and State Park mosquito control problems were examined.

The theme of mosquito control in a changing environment was aptly demonstrated in the Garden State in just a brief space of two days and a few hundred miles. A word of praise for dedication to all those participating should be given inasmuch as the thermometer remained in the very uncomfortable (for New Jersey) 95-100 degrees range.

REVIEWS AND ABSTRACTS

HELEN LOUISE DURKEE

RADIONUCLIDES AND IONIZING RADIATIONS IN ENTOMOLOGY. International Atomic Energy Agency, Vienna, Bibliographical Series No. 9. 414 pp. 1963. Abstracts of 1577 papers are given, and are summarized by an index according to species of insect, type of radionuclide or radiation, and type of study. Two columns of the index are devoted to mosquitoes. An appendix table lists all of the radionuclide studies on mosquito dispersal, mostly with P32; this table was prepared by D. W. Jenkins for the Bangkok conference of the IAEA in 1963. The reader will find the references for irradiating Aedes aegypti and Culex pipiens and Culex quinquefasciatus for sterile-male release, and the radiation-induced mutants of Culex pipiens, C. pipiens and Aedes aegypti. Work with radio-labeled insecticides is summarized, along with an appendix table on their synthesis prepared by T. L. Hopkins for the Bangkok conference; there is also a section on radioassay techniques. The compiler, Mrs. M. Binggeli, has produced a very useful source book, although the misprints of a non-English typesetter are rather frequent, and some articles are abstracted twice. The price is $8.00, available from the National Agency for International Publications, Inc., 801 Third Avenue, New York 22.—A. W. A. Brown, London, Canada.