

## LITERATURE REFERENCES TO MOSQUITOES AND MOSQUITO-BORNE DISEASES

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### ADULTICIDES AND LARVICIDES

- Baenger, J., Rouge, M. and Tribouley, J. 1970. Etude comparée de l'activité insecticide de contact de plusieurs dérivés du diphenyltrichloréthane. WHO Bul. 43(6):827-840. [Mosquitoes mentioned.]
- Bang, Y. H. and Self, L. S. 1971. Pesticide spray practices in rice fields and control of culicine mosquitoes in South Korea. WHO/VBC/71. 269, 10 pp.
- Fluno, J. A. 1970. Controlling mosquitoes in your home and on your premises. U. S. Dept. Agr. Home and Gard. Bul. 84, 8 pp. Rev. Sept. 1970.
- Fontaine, R. E., Rosen, P., Ramasamy, M. and Renaud, P. G. 1971. A village scale field trial of OMS-1211 (Iodofenphos) for the control of *Anopheles gambiae* and *Anopheles funestus* in north central Nigeria. WHO/VBC/71.284, 15 pp.
- Huehne, W. H. 1971. Barrier spraying at the Kelantan side of the Tai-Malaysia border. J. Trop. Med. and Hyg. 74(5):106-109. [In connection with malaria.]
- LaBrecque, G. C., Wilson, H. G., Gahan, J. B. and Weidhaas, D. E. 1971. Evaluation of various insecticides as residual sprays in buildings naturally infested with *Anopheles quadrimaculatus*. Mosquito News 31(2):206-208.
- Piper, W. D. and Maxwell, K. E. 1971. Mode of action of surfactants on mosquito pupae. J. Econ. Ent. 64(3):601-606.
- Rachesky, S. 1971. 1971 insect control recommendations. Compiled from several State extension services. Pest Control 39(7):26, 28, 30. [Includes mosquitoes.]
- Rosen, P., Fontaine, R. E., Ramasamy, R. and Renaud, P. 1971. A village scale field trial of OMS-1075 (Cidial) for the control of *Anopheles gambiae* and *Anopheles funestus* in north central Nigeria. WHO/VBC/71.265, 15 pp.
- Saccà, G., Scirocchi, A. and Pierdominici, E. 1970. A field trial of Cidial ULV application, by helicopter, for mosquito control. Riv. di Parassitol. 31(4):291-298. In Ital., Engl. Sum.
- Sanai, G. and Mesghali, A. 1970. Laboratory and field studies in Iran on the addition of spreading agents to oil used in larviciding

- programmes. Soc. de Path. Exot. Bul. 63(3):725-732. In Engl.
- Schaefer, C. H. and Ramke, D. J. 1971. An operational evaluation of FLIT MLO for the control of mosquito larvae in California with supplemental comments on problems involved with the aerial application of oils. Calif. Vector Views 18(3):13-16.
- Self, L. S., Tonn, R. J., Bai, D. H. and Shin, H. K. 1971. Toxicity of agricultural pesticide applications to several mosquito species in South Korean rice fields. WHO/VBC/71.270, 10 pp.
- Self, L. S. and Tun, M. M. 1970. Summary of field trials in 1964-69 in Rangoon, Burma, of organophosphorus larvicides and oils against *Culex pipiens fatigans* larvae in polluted water. WHO Bul. 43(6):841-851.
- Spielman, A. 1970. Synthetic juvenile hormones as larvicides for mosquitoes. Indus. and Trop. Health 7:67-69.
- Womeldorf, D. J. and Force, G. W. 1971. Field tests of paris green granules to control larval *Aedes nigromaculis* (Ludlow) and *Culex tarsalis* Coquillett. Calif. Vector Views 18(2):10-11.
- World Health Organization. 1971. Alternative methods of vector control. WHO Chron. 25(5):230-235. [Includes mosquitoes.]
- World Health Organization. 1971. Development of alternative insecticides. WHO Chron. 25(5):227-229. [For mosquitoes included.]

### VARIOUS TYPES OF CONTROL

- Provost, M. W. 1969. Ecological control of salt marsh mosquitoes with side benefits to birds. Tall Timbers Conf. on Ecolog. Animal Cont. by Habitat Mgt. Proc. No. 1:193-206.
- Venters, D. 1971. The mode of systemic insecticidal action of sulphaquinoxaline against mosquitoes. Roy. Soc. Trop. Med. and Hyg. Trans. 65(1):24-25.
- Wheeler, C. M. and Thebault, M. 1971. Efficacy of synthetic substances with hormonal activity against IV instar larvae of *Culex pipiens quinquefasciatus* Say in an outdoor insectary. Mosquito News 31(2):170-174.

### STERILIZATION METHODS

- Bransby-Williams, W. R. 1971. A field release of male *Culex pipiens fatigans* sterilised by apholate. East Afr. Med. J. 48(2):68-75.
- Hafez, M., Aboul-Nasr, A. E. and Salama, H. S. 1971. Studies on the control of mosquitoes

<sup>1</sup> This work was supported (in part) by grants LM 00087 and LM 00755 from the National Library of Medicine, National Institutes of Health, U. S. DHEW.

in Egypt by means of chemosterilants. IV. Sterilization of *Anopheles pharoensis* and *Culex pipiens* by apholate and thiotepa. J. Econ. Ent. 64(3):675-678.

Rongsriyam, Y. and Harinasuta, C. 1971. Preliminary study on sterilization of mosquitoes by chemosterilants. Southeast Asian J. Trop. Med. and Pub. Health 2(1):105-106.

#### Aedes Aegypti Eradication

Pan American Sanitary Bureau. 1971. Informe de Marzo de 1971 sobre la campaña de erradicación del *Aedes aegypti* en las Américas. Bol. Ofic. Sanit. Panamer. 70(6):586.

#### Mosquito Control Agency Problems

Buzicky, A. W. 1971. Budget planning and control. Mosquito News 31(2):227-229.

———. 1971. Our vanishing weapons. Mosquito News 31(2):141-144.

California Mosquito Control Association. 1971. Year book. 61 pp.

Vannote, R. L. 1971. Administrative and operational phases of the mosquito control program. Mosquito News 31(2):144-145.

#### Parasites, Predators, Viruses and Related Agents

Briggs, J. D. 1970. 1969 activities of the WHO International Reference Center for Diagnosis of Diseases of Vectors. WHO/VBC/70.250, 13 pp.

Clark, T. B. and Fukuda, T. 1971. Field and laboratory observations of two viral diseases in *Aedes sollicitans* (Walker) in southwestern Louisiana. Mosquito News 31(2):193-199.

Fedder, M. L., Danilevsky, M. L. and Reznik, E. P. 1971. On finding of parasitic fungus of the genus *Coelomomyces* (Phycomycetes, Blastocladales) in *Aedes togoi* Theobald mosquitoes in the Primorsky region. Med. Parazit. i Parazit. Bolezni 40(2):201-204. In Rus., Engl. Sum.

Goldberg, A. M. 1971. Microsporidia of *Culex pipiens* L. mosquitoes. Med. Parazit. i Parazit. Bolezni 40(2):204-206. In Rus., Engl. Sum.

Harrap, K. A. and Tinsley, T. W. 1971. A suggested Latinized nomenclature of occluded insect viruses. J. Invert. Path. 17(2):294-296.

Hoy, J. B., O'Berg, A. G. and Kauffman, E. E. 1971. The mosquitofish as a biological control agent against *Culex tarsalis* and *Anopheles freeborni* in Sacramento Valley rice fields. Mosquito News 31(2):146-152.

Pandian, T. J. and Reddy, S. R. 1971. Experimental studies on feeding habits of the mosquito-fish *Gambusia affinis*. WHO/VBC/71.282, 4 pp.

Savage, K. E. and Petersen, J. J. 1971. Observations of nematode parasites in Florida mosquitoes. Mosquito News 31(2):218-219.

Shcherban, Z. P. and Goldberg, A. M. 1971. Pathogenic fungi *Coelomycidium* (Phycomycetes, Chytridiales) and *Coelomomyces* (Phycomycetes, Blastocladales) in *Culex* and *Aedes* mosquitoes (Fam. Culicidae, Diptera) in Uzbekistan. Med. Parazit. i Parazit. Bolezni 44(1):110-111. In Rus., Engl. Sum.

#### Equipment

Forrester, G. 1971. The PL-12 Airtruk—an unusual design concept in agricultural aircraft. Pest Articles and News Sum. 17(1):57-63.

Pest Control. 1971. Pest Control's equipment directory. Pest Control 39(5):46-71. Passim.

Prentice, M. A. 1971. A simple constant flow pesticide dispenser. Pest Articles and News Sum. 17(1):64-66.

Oktyabrskaya, T. A., Matsievskaya, M. M. and Kiblitky, L. Z. 1971. Experience of using equipment for destruction of Culicidae larvae in water reservoirs of a large town. Med. Parazit. i Parazit. Bolezni 40(2):210-215. In Rus.

#### Attractants and Repellents

Boparai, M. S. and Varma, R. N. 1971. Field evaluation of diethyltoluamide (Deet) as a mosquito repellent. Indian J. Med. Res. 59(3):504-509.

Gleiberman, S. E. and Volkova, A. P. 1971. Comparative toxicity of diethyltoluamide synthesized on petroleum and coal methaxylene. Med. Parazit. i Parazit. Bolezni 44(1):39-45. In Rus., Engl. Sum.

Kashafutdinov, G. A. and Ilyina, N. A. 1971. Repellent activity of cyclohexenyl ethers of amidophosphoric acid. Med. Parazit. i Parazit. Bolezni 44(1):36-39. In Rus., Engl. Sum. [Mosquitoes included.]

Khan, A. A., Maibach, H. I. and Strauss, W. G. 1971. A quantitative study of variation in mosquito response and host attractiveness. J. Med. Ent. 8(1):41-43.

Potapov, A. A. 1971. The problem of utilization of solid repellents. Med. Parazit. i Parazit. Bolezni 40(1):32-36. In Rus., Engl. Sum.

Richard, P. W. 1965. The influence of water color on oviposition site selection by the mosquitoes *Culex tarsalis*, *Culiseta inornata* and *Aedes triseriatus*. Colo.-Wyo. Acad. Sci. J. 5(6):59-60.

#### Resistance and Susceptibility

Ariaratnam, V. and Georghiou, G. P. 1971. Resistance to carbamate and organophosphorus insecticides in *Anopheles albimanus*. WHO/VBC/71.277, 7 pp.

Busvine, J. R. 1971. The biochemical and genetic bases of insecticide resistance. Pest

- Articles and News Sum. 17(2):135-146. [Includes mosquitoes.]
- Gaoub, I. A., El-Sawaf, S. K. and El-Latif, M. A. 1970. Irritability of adults of *Anopheles (Myzomyia) pharoensis* Theobald (Dipt., Nem.) at the presence of DDT. Z. f. Angew. Ent. 66(4):428-434.
- Ryabova, I. N., Tereshina, Z. S. and Belyaeva, N. S. 1971. On the sensitivity of mosquitoes *Aedes vexans* Meig. to some insecticides in the Khabarovsk region. Med. Parazit. i Parazit. Bolezni 40(2):208-210. In Rus., Engl. Sum.
- Rongsriyam, Y. and Harinasuta, C. 1971. The difference in mortality rate of larvae of dieldrin resistant and susceptible strains of *Culex pipiens fatigans* when reared together in confined containers. Southeast Asian J. Trop. Med. and Pub. Health 2(1):106.
- Tong, R. 1969. The susceptibility to chlorinated hydrocarbon insecticides of larvae of *Culex (Culex) pipiens fatigans* Wiedemann, 1828, *Aedes (Stegomyia) aegypti* (L.), 1762, and *Anopheles (Myzomyia) vagus* Donitz, 1902, and fingerlings of the mouth-breeding cichlid fish *Tilapia mossambica* Peters. Union of Burma J. Life Sciences 2(2):167-173.
- World Health Organization. 1970. Information Circular on Insecticide Resistance, Insect Behaviour and Vector Genetics. VBC/IRG/70.8 Corr.1, 1 p.
- . 1971. Insecticide resistance—the problem and its solution. WHO Chron. 25(5): 214-218. [Mosquitoes included.]
- ### INSECTICIDES AND CHEMICALS
- Adair, H. M. and Coauthors. 1971. Drift of methyl parathion aerially applied low volume and ultra low volume. J. Econ. Ent. 64(3): 718-721.
- Commonwealth Institute of Entomology. 1971. The nomenclature of chemicals used in pest control. Rev. Appl. Ent. Ser. B 59(1):1-12.
- Fowler, D. L., Mahan, J. N. and Shepard, H. H. 1971. The pesticide review 1970. U. S. Dept. Agr., Agr. Stab. and Conservat. Serv. 46 pp.
- Pest Articles and News Summaries. 1971. Names of pesticides. Revised list—September 1970. Pest Articles and News Sum. 17(1):103-118.
- Rogers, A. J. 1971. Pesticides are still indispensable. Pest Control 39(4):11-12.
- Taylor, J. H. 1971. The development of malathion ultra-low volume concentrate in Asia. Pest Articles and News Sum. 17(1):12-17.
- Deichmann, W. B., MacDonald, W. E., Beasley, A. G. and Cubitt, D. 1971. Subnormal reproduction in beagle dogs induced by DDT and aldrin. Indus. Med. and Surg. 40(2):10-11.
- Dyatlovitskaya, F. G. and Bomvinova, L. E. 1971. Separate determination of DDT and Keltane in industrial waste waters. Gig. i Sanit. 36(1):72-74. In Rus.
- Guthrie, F. E., Monroe R. J. and Abernathy, C. O. 1971. Response of the laboratory mouse to selection for resistance to insecticides. Toxicol. and Appl. Pharmacol. 18(1):92-101. [DDT included.]
- Hayes, W. J., Jr. 1971. The degree of hazard to man of DDT as used against malaria. WHO/VBC/71.251, WHO/MAL/71.738. 18 pp.
- , Dale, W. E. and Pirkle, C. I. 1971. Evidence of safety of long-term, high, oral doses of DDT for man. Arch. Environmtl. Health 22(1):119-135.
- Kashyap, S. K. and Gupta, S. K. 1971. Acute and chronic toxicity studies of DDT in albino rats. Indian J. Med. Res. 59(2):284-288. [Concluded that the chronic toxic effect in diet not likely to manifest as increased number of death or adverse body growth.]
- and ———. 1971. The effect of occupational exposure to organophosphorus pesticides on blood cholinesterase. Indian J. Med. Res. 59(2):289-293. [Health hazards encountered due to abnormal inhibition of cholinesterase in them.]
- Odinets, A. A. 1971. Toxicity of malathion for the warm blooded (literature survey). Farmakol. i Toksikol. 34(1):113-116. In Rus.
- Yarbrough, J. D. and Wells, M. R. 1971. Vertebrate insecticide resistance: the in vitro endrin effect of succinic dehydrogenase activity on endrin-resistant and susceptible mosquitofish. Bul. Environmtl. Contam. and Toxicol. 6(2): 171-176.
- ### BEHAVIOR, BIOLOGY AND ECOLOGY
- Asahina, S. 1971. Insect dispersal as observed by a weather ship on the north-western Pacific. Internat. Cong. Ent. (Moscow) Proc. 13:106. [*Culex tritaeniorhynchus* captured.]
- Fedder, M. L. and Coauthors. 1971. Epidemiological evaluation of natural populations of *Aedes togoi* Theobald in the Soviet Primorsky region. Med. Parazit. i Parazit. Bolezni 40(3): 302-307. In Rus., Engl. Sum.
- Gaoub, I. A., El-Sawaf, S. K. and El-Latif, M. A. 1970. Fecundity of *Anopheles (Myzomyia) pharoensis* Theobald (Dipt., Nem.) fed on different hosts. Z. f. Angew. Ent. 66(4):423-428.
- Gwadz, R. W., Craig, G. B., Jr. and Hickey, W. A. 1971. Female sexual behavior as the mechanism rendering *Aedes aegypti* refractory to insemination. Biol. Bul. 140(2):201-214.
- ### TOXICOLOGY
- Cavagna, G. and Vigliani, E. C. 1970. Problèmes d'hygiène et de sécurité dans l'emploi du Vapona comme insecticide dans le locaux domestiques. Medna Lav. 61(8/9):409-423.

- Hagstrum, D. W. and Workman, E. B. 1971. Interaction of temperature and feeding rate in determining the rate of development of larval *Culex tarsalis* (Diptera, Culicidae). Ent. Soc. Amer. Ann. 64(3):668-671.
- Haridi, A. M. 1971. Partial exophily of *Anopheles gambiae* species B in Khashm Elgibra Medto area in eastern Sudan. WHO/MAL/71.746, 12 pp.
- Harmston, F. C. 1971. Suppression of male characteristics in *Aedes schizopinar* Dyar (Diptera: Culicidae) by thermal stress. Mosquito News 31(2):224-226.
- Lambrecht, F. L. 1971. Notes on the ecology of Seychelles mosquitoes. Bul. Ent. Res. 60(3): 513-532.
- Mattingly, P. F. 1971. Cyclical behaviour in mosquitoes. Internatl. Cong. Ent. (Moscow) Proc. 13:416-417.
- McClelland, G. A. H. and Conway, G. R. 1971. Blood-feeding and gonotrophic cycle of the mosquito *Aedes aegypti* assessed by mark-release-recapture in a suburban habitat in Tanzania. WHO/VBC/71.272, 5 pp.
- McCrae, A. W. R. and Coauthors. 1970. Cattle-baited mosquito catches near the Zika forest. East Afr. Virus Res. Inst. Rpt. No. 19:55-58.
- and ———. 1970. Host choice and related activities in *A. implexus*. East Afr. Virus Res. Inst. Rpt. No. 19:51-53.
- McCrae, A. W. R. and Manuma, P. 1970. Summary of the routine catch programme from the Zika tower, 1963-69, with reference to *Aedes africanus*. East Afr. Virus Res. Inst. Rpt. No. 19:23-25.
- , ———, Mawejje, C. and Kitama, A. 1970. Catches of mosquitoes from plant sugar sources, and related studies. East Afr. Virus Res. Inst. Rpt. No. 19:59.
- McCrae, A. W. R., Ssenkubuge, Y., Manuma, P. and Kitama, A. 1970. Mosquito biting activity at and above ground level at the forest edge. With particular reference to the effects of moonlight. East Afr. Virus Res. Inst. Rpt. No. 19:53-55.
- McCrae, A. W. R., Ssenkubuge, Y., Kitama, A. and Ssaku, C. 1970. Studies on the *Anopheles gambiae* species complex. East Afr. Virus Res. Inst. Rpt. No. 19:61-63.
- Mezencev, N. P. 1971. The effect of external factors on the attacking activity of mosquitoes and their daily rhythm in the transpolar region. Parazitologiya 5(3):254-260. In Rus., Engl. Sum.
- Mukwaya, L. G. 1970. Population density—the correlation of larval population density to the biting rate of *A. simpsoni*. East Afr. Virus Res. Inst. Rpt. No. 19:50.
- , Kitama, A. and Mawejje, C. 1970. Studies on the biting behaviour of *Aedes simpsoni*. Inter-relationship between rodent and *A. simpsoni* times of activity at Bwayise. East Afr. Virus Res. Inst. Rpt. No. 19:45-48.
- Mukwaya, L. G. and Ssaku, C. 1970. Periodic pupation and emergence in *Aedes (S.) vittatus*. East Afr. Virus Res. Inst. Rpt. No. 19:50-51.
- Mukwaya, L. G., Ssenkubuge, Y., Mawejje, C. and Kitama, A. 1970. Studies on the biting behaviour of *Aedes aegypti* at Bwayise. East Afr. Virus Res. Inst. Rpt. No. 19:48-50.
- Njogu, A. B. and Kinoti, G. K. 1971. Observations on the breeding sites of mosquitoes in Lake Manyara, a saline lake in the East African Rift Valley. Bul. Ent. Res. 60(3):473-479.
- Novak, G. E. and Semenyuta, I. S. 1971. An unusual mass emergence of gnats and their attack on man and animals in the Sumy region in 1968. Med. Parazit. i Parazit. Bolezni 44(1): 108-109. In Rus., Engl. Sum. [Mosquitoes included.]
- Nowell, W. R., O'Neal, A. T. and Bullard, A. T. 1971. Novel collection record for *Culex tarsalis* Coquillett. Mosquito News 31(2):219-220.
- Schaefer, C. H., Miura, T. and Washino, R. K. 1971. Studies on the overwintering biology of natural populations of *Anopheles freeborni* and *Culex tarsalis* in California. Mosquito News 31(2):153-157.
- Sempala, S. D. K., Ssenkubuge, Y. and Kalamu, R. 1970. Studies on tree-hole breeding mosquitoes. East Afr. Virus Res. Inst. Rpt. No. 19:59-61.
- Spencer, M. 1970. Density and longevity of *Anopheles farauti* Laveran. Papua and N. Guinea Med. J. 13(3):84-89.
- Subra, R. 1970. Etudes écologiques sur *Culex pipiens fatigans* Wiedemann, 1828 (Diptera, Culicidae) dans une zone urbaine de savane soudanienne ouest-Africaine. Lieux de repos des adultes. Ent. Méd. et Parasitol. 8(4):353-376. Engl. Sum.
- Trpiš, M. 1970. Ecological studies on breeding of *Aedes aegypti* and other mosquitoes in shells of the giant african snail *Achatina fulica*. WHO/VBC/70.241, 20 pp.
- and Coauthors. 1971. Diel periodicity in the landing of *Aedes aegypti* on man in Tanzania with discussion on the possible causes of variability between studies. WHO/VBC/71.276, 11 pp.
- Weidhaas, D. E., Patterson R. S., Lofgren, C. S., and Ford, H. R. 1971. Bionomics of a population of *Culex pipiens quinquefasciatus* Say. Mosquito News 31(2):177-182.
- White, G. B. 1971. Blood feeding habits of mosquitoes in the south Pare district of Tanzania ten years after cessation of a dieldrin residual spraying campaign. East Afr. Med. J. 48(3):122-134.

## GENETICS

- Baker, R. H., Sakai, R. K. and Mian, A. 1971. Linkage group—chromosome correlation in a mosquito. Inversions in *Culex tritaeniorhynchus*. J. Heredity 62(1):31-36.
- Bianchi, U. and Chessa, G. 1970. Allozymes having xanthine dehydrogenase activity in

- Anopheles atroparvus*. Riv. di Parassitol. 31(4): 299-303. In Ital., Engl. Sum.
- Coluzzi, M., Bullini, L. and Bianchi Bullini, A. P. 1971. Alleli per la fosfoglucomutasi (PGM) nel complesso *mariae* del genere *Aedes* e studio dell'isolamento riproduttivo di popolazioni naturali. Assoc. Genet. Ital. Atti 16:5-7. Engl. Sum.
- Dennhöfer, U. 1971. Erbllichkeit der Übertragungsfähigkeit bzw. Resistenz gegen Vogel-malaria bei der Stechmücke *Culex pipiens* L. Anz. f. Schädlingskunde 44(6):84-91. Engl. Sum.
- Ishii, T. 1970. On the *Culex pipiens* group in Japan. Part II, VI. Siphonal hair types from type 5-4 population of *Culex pipiens molestus* Forskal (Diptera, Culicidae). Jap. J. Sanit. Zool. 21(4):200-204. In Jap., Engl. Sum.
- Kreutzer, R. D. and Kitzmiller, J. B. 1971. Hybridization between *Anopheles crucians* and *Anopheles bradleyi*. Evolution 25(1):195-206.
- Kreutzer, R. D., Narang, S. L. and Kitzmiller, J. B. 1970. A comparison of the salivary gland chromosomes of *Anopheles crucians* and *Anopheles bradleyi*. Cytologia 35(4):527-551.
- Laven, H. and Jost, E. 1971. Inherited semisterility for control of harmful insects. I. Productions of semisterility due to translocation in the mosquito, *Culex pipiens* L. by X-rays. Experientia 27(4):471-473.
- McDonald, P. T. and Rai, K. S. 1970. Correlation of linkage groups with chromosomes in the mosquito, *Aedes aegypti*. Genetics 66(3): 475-485.
- Quinn, T. C. and Craig, G. B., Jr. 1971. Phenogenetics of the homeotic mutant proboscipedia in *Aedes albopictus*. J. Heredity 62(1): 3-12.
- Rai, K. S. 1971. Recent advances in cytogenetic studies of the mosquito, *Aedes aegypti*. Internat. Cong. Ent. (Moscow) Proc. 13:348.
- , McDonald, P. T. and Asman, Sr. M. 1970. Cytogenetics of two radiation-induced sex-linked translocations in the yellow-fever mosquito, *Aedes aegypti*. Genetics 66(4):635-651.
- Sakai, R. K., Baker, R. H. and Mian, A. 1971. A new karyotype for *Culex tritaeniorhynchus*. Mosquito News 31(2):183-185.
- White, G. B. 1971. Chromosomal evidence for natural interspecific hybridization by mosquitoes of the *Anopheles gambiae* complex. Nature (London) 231 (5299):184-185.
- female mosquito. Internat. Cong. Ent. (Moscow) Proc. 13:358-359.
- Bellamy, R. E. and Bracken, G. K. 1971. Quantitative aspects of ovarian development in mosquitoes. Canad. Ent. 105(5):763-773.
- Burgess, L. 1971. Neurosecretory cells and their axon pathways in *Culiseta inornata* (Williston) (Diptera: Culicidae). Canad. J. Zool. 49(6): 889-901.
- Clay, M. E. and Venard, C. E. 1971. Diapause in *Aedes triseriatus* (Diptera: Culicidae) larvae terminated by molting hormones. Ent. Soc. Amer. Ann. 64(4):968-970.
- Dadd, R. H. 1971. Effects of size and concentration of particles on rates of ingestion of latex particulates by mosquito larvae. Ent. Soc. Amer. Ann. 64(3):687-692.
- Davis, C. W. C. 1970. A comparative study of larval embryogenesis in the mosquito *Culex fatigans* Wiedemann (Diptera: Culicidae) and the sheep-fly *Lucilia sericata* Meigen (Diptera: Calliphoridae). II. Causal interactions in embryonic development. Austral. J. Zool. 18(2):125-154.
- Gwadz, R. W., Lounibos, L. P. and Craig, G. B., Jr. 1971. Precocious sexual receptivity induced by a juvenile hormone analog in females of the yellow fever mosquito, *Aedes aegypti*. General and Compar. Endocrinol. 16(1):47-51.
- Harmston, F. C. 1971. Two mosaic gynandromorphs of *Culex tarsalis* Coquillett from Texas. Mosquito News 31(2):222-223.
- Jones, J. C. 1970. A study of reinsemination in *Aedes aegypti* mosquitoes. Amer. Zool. 10(3): 311.
- . 1971. Recent studies on the morphology and physiology of the reproductive system of *Aedes aegypti*. Internat. Cong. Ent. (Moscow) Proc. 13:391-392.
- Kuznetsova, L. A. 1971. Formation of the peritrophic membrane in larvae and female *Aedes aegypti* L. mosquitoes. Internat. Cong. Ent. (Moscow) Proc. 13:406-407. In Rus.
- McIver, S. 1971. Comparative studies on the sense organs on the antennae and maxillary palps of selected male culicine mosquitoes. Canad. J. Zool. 49(2):235-239.
- Meola, R. and Lea, A. O. 1971. Independence of paraldehyde-fuchsin staining on the corpus cardiacum and the presence of the neurosecretory hormone required for egg development in the mosquito. General and Compar. Endocrinol. 16(1):105-111. [*Aedes sollicitans*.]
- Phillips, J. E. 1970. Apparent transport of water by insect excretory systems. Amer. Zool. 10(3):413-436. [*Aedes detritus* included.]
- Prasad, C. and French, W. L. 1971. Tryptophan pyrrolase activity during development in mosquito (*Culex pipiens*). Compar. Biochem. and Physiol. 38B(3):627-629.
- Rudnick, A., Jeffrey, J., Chong Seng, H. L. and Nee, L. B. 1971. A freak specimen of *Aedes*

#### ANATOMY, MORPHOLOGY AND PHYSIOLOGY

Armstrong, J. A. 1971. The total free amino acid level in the mosquito haemolymph and its role in the blood feeding activity of the

- (*Stegomyia albopictus* (Skuse, 1894) from Malaysia (Diptera: Culicidae). Southeast Asian J. Trop. Med. and Pub. Health 2(1):85-86.
- Stobart, R. H. 1971. Evidence for  $\text{Na}^+/\text{H}^+$  and  $\text{Cl}^-/\text{HCO}_3^-$  exchanges during independent sodium and chloride uptake by the larva of the mosquito *Aedes aegypti* (L.). J. Expt. Biol. 54(1):19-29.
- . 1971. Factors affecting the control of body volume in the larvae of the mosquitoes *Aedes aegypti* (L.) and *Aedes detritus* Edw. J. Expt. Biol. 54(1): 67-82.
- . 1971. The control of sodium uptake by the larva of the mosquito *Aedes aegypti* (L.). J. Expt. Biol. 54(1):29-66.
- Zhuzhikov, D. P. 1971. The structure and permeability of the peritrophic membrane in the larvae of *Aedes aegypti* L. Internat. Cong. Ent. (Moscow) Proc. 13:463-464.
- See also Yajima in Techniques Section.
- ### TECHNIQUES
- Bar-Zeev, M. and Ben-Tamar, D. 1971. A method for rearing the mosquito *Culex pipiens molestus* Forsk. Mosquito News 31(2):174-177.
- Blevins, R. D. and Liles, J. N. 1971. Determination of cellular nucleic acid content in *Aedes aegypti* (Diptera: Culicidae) using microfluorometric assay. Ent. Soc. Amer. Ann. 64(4): 972-973.
- Briegel, H. and Freyvogel, T. A. 1971. Preliminary survey of *Aedes* (*Stegomyia*) mosquitoes during the dry season of 1970 in the Tanzanian hinterland. WHO/VBC/71.274, 24 pp.
- Brown, B. L., Nagle, S. C., Jr., Lehman, J. D. and Rapp, C. D. 1970. Storage of *Aedes aegypti* and *Aedes albopictus* cells under liquid nitrogen. Cryobiology 7(4/6):249-251.
- Burton, G. J. 1971. Insect aspirators made from plastic or glass serological pipettes. Mosquito News 31(2):220.
- . 1971. A simple inexpensive styrofoam chamber for long-term holding of adult mosquitoes. Mosquito News 31(2)220-221.
- Chakraborty, R. 1971. Restricted random mating: a new mating model. Current Sci. (Bangalore) 40(8):185-186.
- Entomological Society of Canada. 1971. Laboratory colonies of mites, ticks and insects in Canada. Ent. Soc. Canada Bul. 3(2) Suppl. 16 pp. [Mosquitoes included.]
- Gheorghiu, T., Ungureanu, E. M. and Garrett-Jones, C. 1971. An apparatus for the study of the behaviour pattern of mosquitoes under the influence of insecticides. WHO/MAL/71.741., WHO/VBC/71.278. 9 pp.
- Grimstad, P. R. and Coauthors. 1970. Observations of a laboratory colony of the mosquito *Aedes dorsalis* (Meigen). Calif. Vector Views 17(12):109-112.
- Hagstrum, D. W. 1971. Evaluation of the standard pint dipper as a quantitative sampling device for mosquito larvae. Ent. Soc. Amer. Ann. 64(3):537-540.
- Ikeuchi, M. 1970. Observations on the physiological age of *Culex tritaeniorhynchus* collected by light traps. Jap. J. Sanit. Zool. 21(4):209-212. In Jap., Engl. Sum.
- Janis, B., Hunter, D. T. and Richards, D. F. 1971. A new method for detecting plasmodia. Military Med. 136(1):23-26.
- Jupp, P. G. 1971. The laboratory colonization of *Culex* (*Culex*) *theileri* Theobald and *Aedes* (*Diceromyia*) *furcifer* (Edwards) (Diptera: Culicidae). Ent. Soc. South. Afr. J. 34(1):191-193.
- Kortmann, H. F., Lelijveld, J., Ross, J. P. J. and Lohr, K. F. 1971. A capillary-tube agglutination test for malaria. WHO/Mal/71.747, 11 pp.
- McCrae, A. W. R., Mukwaya, L. G., Sempala, S. D. K. and Ssaku, C. 1970. Mosquitoes. East Afr. Virus Res. Inst. Rpt. No. 19:66. [Includes data on colonies.]
- Peach, M. J., III. 1971. Plastic cages for mosquito rearing and disease transmission studies. Mosquito News 31(2):190-192.
- Pearson, J. A. 1971. Adaptation of hand torches to 12-volt operation. WHO/VBC/71.286, 2 pp.
- Sasa, M. and Coauthors. 1971. The use of scanning electron microscopy in morphology and taxonomy of some mites and mosquitoes. Jap. J. Expt. Med. 41(2):135-158.
- Turner, A. 1971. Preparation of 8-place slides for multiple testing in fluorescent antibody procedures. WHO/MAL/71.743, 2 pp.
- Washino, R. K. and Else, J. G. 1971. Identification of blood meals of haematophagous arthropods by the haemoglobin crystallization method. WHO/VBC/71.275, 3 pp.
- Yajima, T. 1970. A note on the formation of the "false" dilatation in *Culex tritaeniorhynchus summorosus* Dyar. Jap. J. Sanit. Zool. 21(4): 224-225. Jap. Sum.
- ### Techniques—Tissue Culture
- Elizarova, O. N. and Nuzhdina, D. P. 1971. Use of the tissue culture method for determining the toxicity of pesticides. Gig. i Sanit. 36(1):83-87. In Rus.
- Hagen, K. W., Vavra, R. W. and Harwood, R. F. 1971. Survival of myxoma virus in *Aedes albopictus* cell cultures. Calif. Vector Views 18(2):7-9. [Virus failed to replicate in *A. albopictus* cell cultures.]
- Kitamura, S. 1970. Establishment of cell line from *Culex* mosquito. Kobe J. Med. Sci. 16(1): 41-50. In Engl.
- Marty, W. G. and Weathersby, A. B. 1971. The use of *Aedes aegypti* for infecting chick embryos with *Plasmodium gallinaceum*. J. Parasitol. 57(3):611-614.
- Singh, K. R. P., Bhat, U. K. M. and Paul, S. D.

1971. Adaptation of Singh's *Aedes albopictus* (ATC-15) cell line to media with calf and goat sera and their susceptibility to infection with some arboviruses. *Ind. J. Med. Res.* 59(1):31-34.

See also Virus Research Centre (Poona) in Arbovirus Section.

## TAXONOMY

- Adames, A. J. 1971. Mosquito studies (Diptera, Culicidae). XXIV. A revision of the crabhole mosquitoes of the genus *Deinocerites*. *Amer. Ent. Inst. Contrib.* 7(2):1-154. [*D. atlanticus*, *barrettoi*, *belkini*, *colombianus*, *cuviche*, *panamensis* n. spp.]
- Aslamkhan, M. 1971. A redescription of *Aedes* (*Aedimorphus*) *punctifemoris* (Ludlow) from Pakistan. *Biologia (Pakistan)* 17(1):61-65.
- Belkin, J. N. 1971. Mosquito types in East Germany. *Mosquito Systematics Newsltr.* 3(2):31.
- , Schick, R. X. and Heinemann, S. J. 1971. Mosquito studies (Diptera, Culicidae). XXV. Mosquitoes originally described from Brazil. *Amer. Ent. Inst. Contrib.* 7(5):1-64.
- Dobrotworsky, N. V. 1971. Contributions to the mosquito fauna of Southeast Asia. X. The genus *Culiseta* Felt in Southeast Asia. *Amer. Ent. Inst. Contrib.* 7(3):38-61.
- Ferrara, L. 1970. Description complémentaire d'*Eretmapodites salaïni* Rickenbach, Ferrara et Eouzan 1967 (Dipt. Culicidae). *Ent. Méd. et Parasitol.* 8(2):137-139.
- Kimura, T., Yoshii, A. and Tipton, V. J. 1971. Disc-electrophoretic analysis of some members of the *Culex pipiens* complex. *J. Med. Ent.* 8(1):1-6.
- Knight, K. L. 1971. A mosquito taxonomic glossary. VII. The pupa. *Mosquito Systematics Newsltr.* 3(2):42-65.
- Laffoon, J. L. and Knight, K. L. 1971. A mosquito taxonomic glossary. VI. Female genitalia. *Mosquito Systematics Newsltr.* 3(2):32-41.
- Lunt, S. R. and Nielsen, L. T. 1971. The use of thoracic setae as a taxonomic tool and as an aid in establishing phylogenetic relationships in adult female *Aedes* mosquitoes of North America. Part I. *Mosquito Systematics Newsltr.* 3(2):69-99.
- Mattingly, P. F. 1971. Mosquito eggs XII. Further notes on genera *Orthopodomyia* and *Mimomyia*. *Mosquito Systematics Newsltr.* 3(2):66-68.
- McClelland, G. A. H. 1971. Variation in scale pattern of the abdominal tergum of *Aedes aegypti* (L.). Worldwide survey of populations with particular reference to East Africa. WHO/VBC/71.271, 20 pp.
- Ramalingam, S. and Ramakrishnan, K. 1971. Redescription of *Aedes* (*Alanstonea*) *brevitibia* (Edwards) from Brunel, Borneo (Diptera: Culicidae). *Ent. Soc. Wash. Proc.* 73(2):231-238.
- Sabrosky, C. W. 1971. Additional corrections to A Catalog of the Diptera of America North of Mexico. *Ent. Soc. Amer. Bul.* 17(2):83-88. [Mosquitoes on page 83.]
- Service, M. W. 1970. The taxonomy and distribution of two sibling mosquitoes, *Culiseta morsitans* (Theobald) and *C. litorea* (Shute). *J. Nat. Hist.* 4(4):481-491.
- Sirivanakarn, S. 1971. Contributions to the mosquito fauna of Southeast Asia. XI. A proposed reclassification of *Neoculex* based primarily on the male terminalia. *Amer. Ent. Inst. Contrib.* 7(3):62-85.
- Smirnov, E. S. 1971. Some problems of exact systematics. *Zool. Zhur.* 50(6):797-802. In *Rus., Engl. Sum.*
- Stone, A. 1971. Corrections to mosquito catalog supplements III and IV. *Ent. Soc. Wash. Proc.* 73(2):180.
- Xavier, S. H., Da Silva Mattos, S. and Da Silva, J. E. 1970. *Uranotaenia rachoui*, uma nova espécie do Brasil (Diptera, Culicidae). *Rev. Brasil. de Malariol.* 22(2/4):411-416. *Engl. Sum.* [n. sp.]
- Zavortink, T. J. 1971. Contributions to the mosquito fauna of Southeast Asia. IX. The genus *Orthopodomyia* Theobald in Southeast Asia. *Amer. Ent. Inst. Contrib.* 7(3):1-37.

## DISTRIBUTION

- Belkin, J. N. 1971. Type locality restriction for *Wyeomyia schnusei*. *Mosquito Systematics Newsltr.* 3(2):26.
- and Heinemann, S. J. 1971. *Aedes vexans* in Guatemala. *Mosquito Systematics Newsltr.* 3(2):27.
- Bickley, W. E., Joseph, S. R., Mallack, J. and Berry, R. A. 1971. An annotated list of the mosquitoes of Maryland. *Mosquito News* 31(2):186-190.
- Burgess, L. and Rempel, J. G. 1971. Collection of the pitcherplant mosquito, *Wyeomyia smithii* (Diptera: Culicidae), from Saskatchewan. *Canad. Ent.* 103(6):886-887.
- Colless, D. H. and McAlpine, D. K. 1970. Diptera (flies). In *Insects of Australia* (CSIRO). 1029 pp. [Culicidae on pp. 689-690.]
- Covell, C. V., Jr. 1971. The occurrence of *Aedes stimulans* (Walker) in Kentucky. *Mosquito News* 31(2):226.
- Darsie, R. F., Jr. and Cagampang-Ramos, A. 1971. Additional species of *Anopheles* on Guam. *Mosquito Systematics Newsltr.* 3(2):28-30.
- McCrae, A. W. R. and Coauthors. 1970. Mosquitoes from the Zika Forest processed for virus isolation. Routine catches on the Zika tower. *East Afr. Virus Res. Inst. Rept. No.* 19:17-22.
- Minár, J. 1971. Mosquitoes (Diptera, Culicidae) of the North-East of Mongolia. *Folia Parasitol.* 18(1):92.
- Parsons, R. E. and Howell, D. E. 1971. A list

- of Oklahoma mosquitoes. *Mosquito News* 31(2):168-169.
- Rageau, J., Mouchet, J. and Abonnenc, E. 1970. Répartition géographique des moustiques (Diptera: Culicidae) en France. *Ent. Méd. et Parasitol. Cah.* 8(3):289-317. Engl. Sum.
- Richard, P. W. 1965. The Diptera of the Sukkertoppen Taserisq area in southwest Greenland. *Colo.-Wyo. Acad. Sci. J.* 5(6):59. [*Aedes impiger* and *A. dorsalis* collected.]
- Roman, E. and Ahrary, F. A. 1970. Le genre *Mansonia* dans la région lyonnaise (Diptères Culicidae). *Soc. Linn. Lyon Bul. Mens.* 39(7):236-238.
- Siverly, R. E. and Hart, J. W. 1971. Occurrence of *Aedes atlanticus* Dyar and Knab in Indiana. *Mosquito News* 31(2):224.
- See also Dobrotworsky, Service, Belkin et al. and Zavortink in Taxonomy Section.
- ### ARBOVIRUSES
- Aleshin, L. P. and Coauthors. 1971. Participation of aquatic birds of southeastern Azerbaijan in West Nile virus circulation. *Voprosy Virusologii* 16(2):211-215. In Rus., Engl. Sum.
- Arif, B. and Faulkner, P. 1971. Release of viral hemagglutinin and nucleocapsid components after disruption of Sindbis virus with ether. *Canad. J. Microbiol.* 17(2):161-169.
- Aspöck, H. and Kunz, C. 1971. Investigations on the hibernation of *Tahyna* and *Calovo* viruses in amphibians and reptiles. *Zentbl. Bakteriol. Parasit. Infektionskr. u Hyg. Abt. 1.* 216(1):1-8. In Ger., Engl. Sum.
- Benbough, J. E. 1971. Some factors affecting the survival of airborne viruses. *J. General Virol.* 10(3):209-220. [Includes mosquito-borne.]
- Borden, E. C., Murphy, F. A., Nathanson, N. and Monath, T. P. C. 1971. Effect of antilymphocyte serum on Tacaribe virus infection in infant mice. *Infect. and Immunity* 3(3):466-471.
- Chunikhin, S. P. and Coauthors. 1971. Results of serological study of circulation cycles of some arboviruses in the Republic of Senegal (West Africa). *Voprosy Virusologii* 16(1):52-55. In Rus., Engl. Sum.
- Compans, R. W. 1971. Location of the glycoprotein in the membrane of Sindbis virus. *Nature New Biol.* 229(4):114-116.
- Čupková, E. 1971. Comparative serological studies of some strains of *Tahyna* virus. *J. Hyg., Epidemiol., Microbiol. and Immunol.* 15(1):66-72.
- David-West, T. S. 1971. Propagation and cytopathogenicity of arboviruses in mouse embryo cell culture. *J. General Virol.* 10(2):173-180. [Includes mosquito borne.]
- Davis, J. L., Hodge, H. M. and Campbell, W. E., Jr. 1971. Growth of chikungunya virus in baby hamster kidney cell (BHK-21-clone 13) suspension cultures. *Appl. Microbiol.* 21(2):338-341.
- Dobos, P., Arif, B. M. and Faulkner, P. 1971. Denaturation of Sindbis virus RNA with dimethyl sulphoxide. *J. General Virol.* 10(1):103-106.
- Frisch-Niggemeyer, W. 1971. A technique for competitive inhibition of haemagglutination caused by arboviruses. *Acta Virologica* 15(1):107-110.
- . 1971. Polyphosphoinositides as receptor substances for certain groups of arboviruses. *Acta Virologica* 15(2):119-125.
- Fuscaldò, A. A., Aaslestad, H. G. and Hoffman, E. J. 1971. Biological, physical, and chemical properties of eastern equine encephalitis virus. I. Purification and physical properties. *J. Virology* 7(2):233-240.
- Goorha, R. M. and Gifford, G. E. 1971. Comparison of interferon induction by active and inactive Semliki Forest virus. *J. General Virol.* 10(2):117-124.
- Grěšiková, M. and Vachálková, A. 1971. Influence of pH, heat, deoxycholate and ether on arbovirus haemagglutinin. *Acta Virologica* 15(2):143-147.
- Holmes, I. H. 1971. Morphological similarity of Bunyamwera supergroup viruses. *Virology* 43(3):708-712.
- Horzinek, M. and Mussgay, M. 1971. Studies on the substructure of Togaviruses. I. Effect of urea, deoxycholate, and saponin on the Sindbis virion. *Arch. f. die Gesamte Virusforsch.* 33(3/4):296-305.
- Igarashi, A. 1970. Protein synthesis and formation of chikungunya virus in infected BHK21 cells. *Biken J.* 13(4):289-302.
- , Nithiuthai, P. and Rojanasuphot, S. 1970. Immunological properties of chikungunya virus and its components. *Biken J.* 13(3):229-231.
- Jenson, A. B., Melnick, J. L., Boyd, K. R. and Wende, R. D. 1971. Rapid identification of an arbovirus by observation of its morphogenesis in the electron microscope. *J. Infect. Dis.* 123(5):551-554. [Includes mosquito-borne viruses.]
- Kafuko, G. W. 1970. East African Virus Research Institute Entebbe. Report No. 19, 1969. 68 pp.
- Kirya, B. G. 1970. A case of West Nile virus—SG 15870. *East Afr. Virus Res. Inst. Rpt. No.* 19:16.
- and Coauthors. 1970. Arbovirus serology. *East Afr. Virus Res. Inst. Rpt. No.* 19:30-31.
- and ———. 1970. Arbovirus identification studies. Isolation from mosquitoes. *East Afr. Virus Res. Inst. Rpt. No.* 19:25-30.
- and ———. 1970. Outbreak of dengue-like illness in Lango district, Uganda. *East Afr. Virus Res. Inst. Rpt. No.* 19:35-39.
- Kirya, B. G., Yazama, G. W., Lule, M. and Kibirige, J. 1970. Arbovirus isolation studies. *East Afr. Virus Res. Inst. Rpt. No.* 19:15-16.



- Kissling, R. E., Murphy, F. A. and Henderson, B. E. 1970. Marburg virus. *N. Y. Acad. Sci. Ann.* 174(2):932-945. [Possibly mosquito-borne.]
- Klein, F., Mahlandt, B. G., Bonner, H. B. and Lincoln, R. E. 1971. Ultra-filtration as a method for concentrating Rift Valley fever virus grown in tissue culture. *Appl. Microbiol.* 21(4):758-760.
- Larson, D. R. and Coauthors. 1971. Preliminary report on arbovirus isolations from South Dakota mosquitoes collected during the summer of 1969. *Mosquito News* 31(2):157-159.
- Maguire, T. and Coauthors. 1971. Mosquito-borne infections in Fiji. II. Arthropod-borne virus infections. *J. Hygiene (London)* 69(2):287-296.
- McCrae, A. W. R., Henderson, B. E., Kirya, B. G. and Sempala, S. D. K. 1971. Chikungunya virus in the Entebbe area of Uganda: isolations and epidemiology. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(2):152-168.
- Moolten, F. L. and Kibrick, S. 1971. Enhancement of Sindbis virus infectivity by reduced salt concentration. *Soc. Expt. Biol. and Med. Proc.* 136(2):335-340.
- Murphy, F. A. and Coauthors. 1971. Marburg virus infection in monkeys: ultrastructural studies. *Lab. Investig.* 24(4):291-292. [Possibly mosquito-borne.]
- Nash, D. R., Halsted, S. B., Stenhouse, A. C. and McCue, C. 1971. Nonspecific factors in monkey tissues and serum causing inhibition of plaque formation and hemagglutination by dengue viruses. *Infection and Immunity* 3(2):193-199.
- Nicoli, J., Coulomb, P. and Meyer, F. 1971. Protéines structurales du virus Sindbis et traduction du génome viral. *Inst. Pasteur Ann.* 120(5):683-697. *Engl. Sum.*
- Pant, C. P., Jatanasen, S. and Yasuno, M. 1971. Prevalence of *Aedes aegypti* and *Aedes albopictus* and observations on the ecology of dengue haemorrhagic fever in several areas of Thailand. *WHO/VBC/71.303*, 9 pp.
- Reinartz, A. B. G., Broome, M. G. and Sagik, B. P. 1971. Age-dependent resistance of mice to Sindbis virus infection: viral replication as a function of host age. *Infection and Immunity* 3(2):268-273.
- Saugrain, J., Rosen, L., Outin-Fabre, D. and Moreau, J. P. 1970. Une récente épidémie d'arbovirose du type dengue à Tahiti comparaisons avec l'épidémie de 1964. *Soc. de Path. Exot. Bul.* 63(6):636-642. *Engl. Sum.*
- Service, M. W. 1971. A reappraisal of the role of mosquitoes in the transmission of myxomatosis in Britain. *J. Hygiene (London)* 69(1):105-111.
- Shelokov, A. 1970. New viruses associated with hemorrhagic fever syndrome. *N. Y. Acad. Sci. Ann.* 174(2):990-992. [Includes mosquito-borne.]
- Steele, J. H. 1971. What is the current status of the viral zoonoses? *Arch. Environmtl. Health* 22(1):154-162. [Includes mosquito-borne viruses.]
- Sudia, W. D., Emmons, R. W., Newhouse, V. F. and Peters, R. F. 1971. Arbovirus-vector studies in the Central Valley of California, 1969. *Mosquito News* 31(2):160-168.
- Virus Research Centre (Poona). 1971. Annual report 1969. 157 pp. [Arboviruses and techniques of mosquito tissue culture included.]
- Worthington, M. and Baron, S. 1971. Late therapy with an interferon stimulator in an arbovirus encephalitis in mice. *Soc. Expt. Biol. and Med. Proc.* 136(1):323-327.
- Zasukhina, G. D. and Marinina, V. P. 1971. Conditions for formation of the small-plaque phenotype of chikungunya virus. *Voprosy Virusologii* 16(1):56-61. In *Rus., Engl. Sum.*
- See also Bergold et al., Sempala et al. and Mangiafico in *Experimental Hosts or Vectors Section*; and Gorgas Memorial Laboratory in *Malaria Section*.

## ENCEPHALITIS

- Armstrong, J. A., Freeburg, L. C. and Ho, M. 1971. Effect of interferon on synthesis of eastern equine encephalitis virus RNA. *Soc. Expt. Biol. and Med. Proc.* 137(1):13-18.
- Bykovsky, A. F., Zhdanov, V. M., Uryvaev, L. V. and Ershov, F. I. 1971. Anatomy of Venezuelan equine encephalomyelitis virus. *Voprosy Virusologii* 16(2):196-206. In *Rus., Engl. Sum.*
- Dickerman, R. W. and Scherer, W. F. 1971. Serologic survey for antibodies to VE virus in western and northcentral Mexico. *Bol. Ofic. Sanit. Panamer.* 70(6):550-556.
- Ershov, F. I., Menshikh, L. K., Zaitseva, O. V. and Zhdanov, V. M. 1971. RNA-polymerase induced by Venezuelan equine encephalomyelitis virus. *Voprosy Virusologii* 16(1):103-108. In *Rus., Engl. Sum.*
- Gaidamovich, S. Y., Tsilinsky, Ya. Ya., Lyova, A. I. and Khutoretskaya, N. V. 1971. Features of multiplication of different clones of Venezuelan equine encephalomyelitis virus in *Aedes aegypti* mosquitoes. *Med. Parazit. i Parazit. Bolezni* 40(3):267-271. In *Rus., Engl. Sum.*
- Galindo, P. and Grayson, M. A. 1971. *Culex (Melanoconion) aikeni*: natural vector in Panama of endemic Venezuelan encephalitis. *Science* 172(3938):594-595.
- Gillette, R. 1971. VEE vaccine: fortuitous spin-off from BW research. *Science* 173(3995):405-408.
- Hearn, H. J. and Jameson, P. 1971. Plaque size and virulence of attenuated Venezuelan equine encephalomyelitis virus after passage in various hosts. *Amer. J. Epidemiol.* 94(1):56-61.
- Hearn, H. J., Tribble, H. R., Jr., Nagle, S. C., Jr. and Bowerson, O. C., Jr. 1971. Replication of Venezuelan equine encephalomyelitis virus in vitro. II. Viral growth response to selected

- nutritional additives in suspension cultures. *Appl. Microbiol.* 21(2):342-345.
- Heydrick, F. P., Comer, J. F. and Wachter, R. F. 1971. Phospholipid composition of Venezuelan equine encephalitis virus. *J. Virology* 7(5):642-645.
- Jortner, B. S., Shope, R. E., Manuelidis, E. E. 1971. Neuropathological and virus assay studies of experimental California virus encephalitis in the mouse. *J. Neuropathol. and Expt. Neurol.* 30(1):91-98.
- Kanamitsu, M. and Coauthors. 1970. A field trial with an improved Japanese encephalitis vaccine in a nonendemic area of the disease. *Biken J.* 13(4):313-328.
- Karpova, E. F., Tsilinsky, Ya. Ya. and Loginova, N. V. 1971. Isolation of infectious RNA from certain group A and B arboviruses. *Voprosy Virusologii* 16(2):230. In Rus., Engl. Sum.
- Levitt, L. P., Lovejoy, F. H., Jr. and Daniels, J. B. 1971. Eastern equine encephalitis in Massachusetts—first human case in 14 years. *New England J. Med.* 284(10):540.
- Masterson, R. A. and Coauthors. 1971. California encephalitis—an endemic puzzle in Ohio. *Health Lab. Sci.* 8(2):89-96.
- Mettler, N. E. and Casals, J. 1971. Isolation of St. Louis encephalitis virus from man in Argentina. *Acta Virologica* 15(2):148-154.
- Monath, T. P. C. and Borden, E. C. 1971. Effects of thiorast on humoral anti-body, viral multiplication, and interferon during infection with St. Louis encephalitis virus in mice. *J. Infect. Dis.* 123(3):297-300.
- Moulton, D. W. and Thompson, W. H. 1971. California group virus infections in small, forest-dwelling mammals of Wisconsin. Some ecological considerations. *Amer. J. Trop. Med. and Hyg.* 20(3):474-482.
- Novokhatsky, A. S. and Ershov, F. I. 1971. Comparative study of  $t^r$  and  $t^s$  variants of Venezuelan equine encephalomyelitis virus. *Voprosy Virusologii* 16(1):42-48. In Rus., Engl. Sum.
- Nozima, T. and Yasui, K. 1971. Reaction with mannan of a live Japanese encephalitis virus vaccine. *Acta Virologica* 15(2):174.
- Ordóñez, J. V., Scherer, W. F. and Dickerman, R. W. 1971. Isolation of eastern encephalitis virus in Guatemala from sentinel hamsters exposed during 1968. *Bol. Ofic. Sanit. Panamer.* 70(4):371-375.
- Reitman, M. and Tonik, E. J. 1971. Immunity to aerosol challenge in guinea pigs immunized with gamma-irradiated Venezuelan equine encephalitis vaccines. *Appl. Microbiol.* 21(4):688-692.
- Sanmartín, C., Trapido, H., Barreto, P. and Lesmes, C. I. 1971. Isolations of Venezuelan and eastern equine encephalomyelitis viruses from sentinel hamsters exposed in the Pacific lowlands of Colombia. *Amer. J. Trop. Med. and Hyg.* 20(3):469-473.
- Shapiro, D., Brandt, W. E., Cardiff, R. D. and Russell, P. K. 1971. The proteins of Japanese encephalitis virus. *Virology* 44(1):108-124.
- Singh, B. and Hammon, W. M. 1971. Studies on Japanese B encephalitis virus vaccines from tissue culture. XI. Immune mechanism and evaluation of the mouse challenge potency test. *Appl. Microbiol.* 21(4):743-748.
- Steigman, A. J. 1971. Influence of age on infection with St. Louis encephalitis virus. *J. Infect. Dis.* 123(3):316.
- Trent, D. W. and Qureshi, A. A. 1971. Structural and nonstructural proteins of Saint Louis encephalitis virus. *J. Virology* 8(3):379-388.
- Tribble, H. R., Hearn, H. J. and Nagle, S. C. 1971. Replication of Venezuelan equine encephalomyelitis virus in suspension cell cultures grown in serum-free and defined media. *J. General Virol.* 10(3):231-236.
- Uryvayev, L. V., Derkach, Y. S., Yershov, F. I. and Zhdanov, V. M. 1971. Proteins of Venezuelan equine encephalomyelitis virions. *Experientia* 27(3):348-349. [Unusually spelled Ershov.]
- Uryvayev, L. V., Derkach, Yu. S., Zhdanov, V. M. and Ershov, F. I. 1971. Structural proteins of Venezuelan equine encephalomyelitis virus. *Biokhimiya* 36(1):92-96.
- Uryvayev, L. V., Zhdanov, V. M., Yershov, F. I. and Bykovsky, A. F. 1971. Characteristics of Venezuelan equine encephalomyelitis virus ribonucleoprotein. *Arch. f. die Gesamte Virusforsch.* 33(3/4):281-287. [Usually spelled Ershov.]
- Vianna, N. and Coauthors. 1971. California encephalitis in New York State. *Amer. J. Epidemiol.* 94(1):50-55.
- Wong-Chia, C. and Scherer, W. F. 1971. Aislamiento del virus de la encefalitis Venezolana de un murcielago frugivoro (*Artibeus turpis*) en Mexico. *Bol. Ofic. Sanit. Panamer.* 70(4):339-343. Engl. Sum.
- Yasui, K. and Nozima, T. 1971. Partial in vitro reconstruction of Japanese encephalitis virus receptor. *Acta Virologica* 15(2):113-118.
- , ——, Homma, R. and Ueda, S. 1971. Extraction of active fragment from Japanese encephalitis viral receptor of susceptible cells. *Acta Virologica* 15(1):7-18.
- Yoshino, K., Morishima, T. and Aoki, Y. 1971. Absence of an all-or-none type of complement requirement in early neutralizing antibody against western equine encephalitis virus. *Jap. J. Microbiol.* 15(1):63-72.

## FILARIASIS

- Barry, C., Ahmed, A. and Khan, A. Q. 1971. Endemic filariasis in Thakurgaon, East Pakistan. *Amer. J. Trop. Med. and Hyg.* 20(4):592-597.
- Beckett, E. B. and Macdonald, W. W. 1971. The survival and development of subperiodic *Brugia malayi* and *B. pahangi* larvae in a selected strain of *Aedes aegypti*. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):339-346.

- Cabrera, B. D. and Tamondong, C. T. 1970. Filariasis studies in Mindanao, Republic of the Philippines: the third endemic focus for Malaysian filariasis. *Acta Med. Philippina* 6(3): 102-131.
- Colless, D. H. 1971. An application of numerical methods to the systematics of microfilariae. *Ann. Trop. Med. and Parasitol.* 65(2):245-251.
- Collin, W. K. 1971. Ultrastructural morphology of the esophageal region of the infective larva of *Brugia pahangi* (Nematoda: Filarioidea). *J. Parasitol.* 57(3):449-468.
- Desowitz, R. S. 1971. Notes on the simplified membrane filtration method for the diagnosis of microfilaremia. WHO/FIL/71.90, 2 pp.
- Ewert, A. and El Bihari, S. 1971. Rapid recovery of *Brugia malayi* larvae following experimental infection of cats. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):364-368.
- Gooneratne, B. W. M. 1971. Earliest pre-patent period of *Brugia pahangi*, infection yet recorded. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):406.
- and Coauthors. 1971. Lymphographic changes in cats with filariasis. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(2):195-198.
- Gratama, S. 1970. *Microfilaria bancrofti* and *Microfilaria volvulus* in hydrocele fluid and tissue sections. Morphology and differential diagnosis. *Trop. and Geog. Med.* 22(4):459-471.
- Guest, M. F., Wong, M. M. and Lavoipierre, M. M. J. 1971. Infectivity of irradiated larvae of *Dirofilaria immitis*. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):403-404.
- Guptavanij, P. and Harinasuta, C. 1971. A note on sheathed and un-sheathed appearance of periodic and sub-periodic *Brugia malayi* in southern Thailand. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):94-95.
- , ———, Deesin, T. and Vutikes, S. 1971. Prevalence of sub-periodic *Brugia malayi* in areas near the Thai-Malaysian border. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1): 100-101.
- Guptavanij, P., Harinasuta, C. and Vutikes, S. 1971. Preliminary observations on the adult worms of *Brugia malayi* in experimentally infected cats. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):95-98.
- Guptavanij, P., Harinasuta, C., Sucharit, S. and Vutikes, S. 1971. Studies on sub-periodic *Brugia malayi* in southern Thailand. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1): 44-50.
- Guptavanij, P., Harinasuta, C., Vutikes, S. and Deesin, T. 1971. A trial on the transmission of periodic *Brugia malayi* from man to cats. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):98-99.
- Harinasuta, C. and Coauthors. 1971. Investigations on bionomics of *Mansonia* mosquitoes—vectors of *Brugia malayi* in southern Thailand. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):103-105.
- Higashi, G. I. and Chowdhury, A. B. 1971. Immunoglobulins and complement in sera from patients with various parasitic infections. *Indian J. Med. Res.* 59(3):382-389. [Includes filariasis.]
- Hitchcock, J. C., Jr. 1971. Transmission of sub-periodic filariasis in Tonga by *Aedes oceanicus* Belkin. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):408-409.
- Kessel, J. F., Siliga, N. Tompkins, H., Jr. and Jones, K. 1970. Periodic mass treatment with diethylcarbamazine for the control of filariasis in American Samoa. *WHO Bul.* 43(6):817-825.
- Laurence, B. R. 1970. The curse of Saint Thomas. *Med. Hist.* 14(14):352-363.
- and Simpson, M. G. 1971. The microfilaria of *Brugia*: a first stage nematode larva. *J. Helminthol.* 45(1):23-40.
- Mataika, J. U., Dando, B. C., Spears, G. F. S. and Macnamara, F. N. 1971. Mosquito-borne infections in Fiji. I. Filariasis in northern Fiji: epidemiological evidence regarding factors influencing the prevalence of microfilaraemia of *Wuchereria bancrofti* infections. III. Filariasis in northern Fiji: epidemiological evidence regarding the mechanisms of pathogenesis. *J. Hygiene (London)* 69(2):273-286; 297-306.
- McNeill, K. M. and Hutchinson, W. F. 1971. The tricarboxylic acid cycle enzymes in the adult dog heartworm, *Dirofilaria immitis*. *Compar. Biochem. and Physiol.* 38B(3):493-500.
- Melnichenko, A. P. and Prosvetova, T. A. 1971. The second case of dirofilariasis of man in the Poltava region. *Med. Parazit. i Parazit. Bolezni* 40(2):238-239. In Rus.
- Mullin, S. W. and Dondero, T. J., Jr. 1971. Viability of infective filarial larvae after periods of refrigeration. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):91.
- Nelson, M., Nelson, D. S. and Zaman, V. 1971. Detection of antigens on filarial larvae by means of immune adherence. *Experientia* 27(2):191-192. [*Armigeres subalbatus* intermediate host of *Breintlia sergenti*.]
- Ramachandran, C. P., Sivanandam, S. and Mullin, S. W. 1971. Inoculation of infective larvae of sub-periodic *Brugia malayi* into domestic cats by various routes. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):92-93.
- Rifaat, M. A., Mahdi, A. H., Waffif, S. F. and Morsy, T. A. 1970. Laboratory efficiency ratio of *Culex pipiens* and *Culex antennatus* as filaria vectors in U. A. R. *Egypt Pub. Health Assoc. J.* 45(3):226-272.
- Roberts, C. J., McKeag, A. and Gelfand, M. 1971. *A. perstans* and *W. bancrofti*. A filarial survey in a game reserve in the Zambesi Valley, Cent. Afr. *J. Med.* 17(5):101-102.
- Sivanandam, S. and Dondero, T. J., Jr. 1971. Abnormally long microfilariae found in periodic

- Burgia malayi* infections in man and cat. Southeast Asian J. Trop. Med. and Pub. Health 2(1):93-94.
- Spratt, D. M., Mallett, G., Derrington, P. C. and Thomas, C. 1971. Male *Dirofilaria immitis* from the eye of a dog. Austral. Vet. J. 47(3):124.
- Supryaga, V. G., Fedder, M. L., Yakubovich, V. Ya. and Mantukhov, A. G. 1971. On the possibility of development of *Wuchereria bancrofti* larvae in blood-sucking mosquitoes of the fauna of the USSR. Zool. Zhur. 50(3):343-349. In Rus., Engl. Sum.
- World Health Organization. 1971. The importance of insecticides in public health. WHO Chron. 25(5):209-213. [Includes *Culex pipiens quinquefasciatus* control for filariasis.] See also Gubler et al., Harinasuta et al., and Ho et al. in Experimental Vectors Section.
- Crane, G. G. and Pryor, D. S. 1971. Malaria and the tropical splenomegaly syndrome in New Guinea. Roy. Soc. Trop. Med. and Hyg. Trans. 65(3):315-324.
- Cuellar, C. B. 1971. Focality and spatial units of transmission in human malaria. J. Trop. Med. and Hyg. 74(5):120-122.
- Dover, A. S. 1971. Malaria in a heroin user. Amer. Med. Assoc. J. 215(12):1987.
- Draper, C. C. 1971. Malaria. Laboratory diagnosis. Brit. Med. J. 5753:93-95.
- Ewers, W. H. 1971. A possible technique for testing gametocidal drugs. Roy. Soc. Trop. Med. and Hyg. Trans. 65(3):403.
- Fajardo, L. F. and Rao, S. 1971. Platelet enlargement in malaria. Military Med. 136(5):463-464.
- Field, J. W. 1971. Summary of recent abstracts. III. Malaria. Trop. Dis. Bul. 68(4):393-411.
- Filart, E. S. 1970. Malaria control studies in the armed forces of the Philippines. Revue Int. Serv. Santé Armées 43(9/10):677-680.
- Galvis, A. G. 1971. Lesiones maláricas en hígados humanos. Bol. Ofic. Sanit. Panamer. 71(1):7-12. Engl. Sum.
- George, C. R. P., O'Neill, B. J. and Garth, J. M. 1971. An Australian experience with malaria. Med. J. Austral. 1(21):1110-1113.
- Gorgas Memorial Laboratory. 1971. Forty-second annual report of the work and operations of the Gorgas Memorial Laboratory, fiscal year 1970. U. S. Congress (92d, 1st session) House Document No. 92-10, 40 pp. [Arboviruses and malaria included.]
- Jain, A. C., Renoirte, A. M. and Schroder, A. 1971. Geographical distribution of Burkitt's lymphoma in the Democratic Republic of the Congo. West Afr. Med. J. 20(3):247-249. [In connection with malaria.]
- Kafuko, G. W. and Coauthors. 1970. Studies in relation to Burkitt's tumour. Follow-up of Burkitt's tumour patients. East Afr. Virus Res. Inst. Rpt. No. 19:41-45. [In connection with malaria.]
- Kosower, N. S. and Kosower, E. M. 1970. Molecular basis for selective advantage of glucose-6-phosphate-dehydrogenase-deficient individuals exposed to malaria. Lancet 7687:1343-1344.
- Mati, J. K. G., Hatimy, A. and Gebbie, D. A. M. 1971. The importance of anaemia of pregnancy in Nairobi, and the role of malaria in the aetiology of megaloblastic anaemia. J. Trop. Med. and Hyg. 74(1):1-8.
- Meuwissen, N. H. E. T. and Coauthors. 1970. A malarial infection that had not been imported into the Netherlands. Ned. Tijdschr. v. Geneesk. 114(42):1728-1731. In Dutch, Engl. Sum.
- Moore, G. W. 1971. Disappearing malaria: some relections. J. Trop. Med. and Hyg. 74(6):123-127.
- Morrow, R. H. and Coauthors. 1971. Burkitt's lymphoma: a time-space cluster of cases in Bwamba County of Uganda. Brit. Med. J.

## MALARIA

- Adeloye, A., Luzzatto, L. and Edington, G. M. 1971. Severe malarial infection in a patient with sickle cell anaemia. Brit. Med. J. 5759:445-446.
- Archampong, E. Q. 1971. Patterns and directions of medical research in West Africa. Trop. and Geog. Med. 23(1):1-14. [Includes malaria.]
- Barbotin, M., Thomas, J. and Andre, L. L. 1970. Données actuelles sur l'accès pernicieux palustre. Méd. Trop. (Marseille) 30(4):530-541.
- Bertrand, E. and Le Bras, M. 1971. L'insuffisance rénale aiguë du paludisme à *Pl. falciparum*. Presse Medicale 79(27):1239-1240.
- Bick, R. L. and Anhalt, J. E. 1971. Malaria in drug addicts. Amer. Med. Assoc. J. 216(6):1036.
- Bowman, J. E. and Coauthors. 1971. Hemoglobin and red cell enzyme variation in some populations of the Republic of Vietnam with comments on the malaria hypothesis. Amer. J. Physical Anthropol. 34(3):313-324.
- Britt, R. P. and Hutchinson, R. M. 1971. Case of *Plasmodium vivax* malaria contracted in southern Europe. Brit. Med. J. 5755:206.
- Bruce-Chwatt, L. J. 1970. De malariae morbo: obiter dicta. Lancet 7664:143-145. [Aphorisms in malaria.]
- . 1970. Some tropical hazards of blood transfusion. Revue Int. Serv. Santé Armées 43(7/8):587-593. [Includes malaria transmission.]
- . 1971. Malaria in southern Europe. Brit. Med. J. 5760:528.
- . 1971. Five papers on malaria. Foreword. J. Trop. Med. and Hyg. 74(2):31.
- . 1971. Malaria. Epidemiology. Brit. Med. J. 5753:91-93.
- Cahill, K. M. 1969. Health on the Horn of Africa. A study of the major diseases of Somalia. 66 pp., New York. St. Clare's hospital, N. Y. [Malaria included.]

- 5760:491-492. [In connection with malaria.]  
Mumford, E. P. 1971. Distribution of parasitic diseases in Bahrain. *J. Trop. Med. and Hyg.* 74(4):89-92. [Includes malaria.]
- . 1971. Distribution of parasitic diseases in Qatar. *J. Trop. Med. and Hyg.* 74(4):87-88. [Includes malaria.]
- Neghme, A. and Silva, R. 1971. Ecologia del parasitismo en el hombre. *Bol. Ofic. Sanit. Panamer.* 70(4):313-329. *Engl. Sum.* [Includes malaria.]
- Neva, F. A., Sheagren, J. N., Shulman, N. R. and Canfield, C. J. 1970. Malaria: host-defense mechanisms and complications. *Ann. Internal Med.* 73(2):295-306. [NIH conference.]
- Pinhão, R. C. 1969. Curso de entomologia para malariologistas. I.—Introdução ao estudo dos culicídeos. Escola Nacional de Saúde Púb. e de Med. Trop. *Anais (Lisbon)* 3(1/4):151-169.
- Rees, P. H., Touquet, V. L. R., Allen, A. V. H. and Nyawade, Z. N. 1971. "Clinical malaria" in Nairobi. *East Afr. Med. J.* 48(2):51-55.
- Reis, E. S. 1969. Malária e gestação. Escola Nacional de Saúde Púb. e de Med. Trop. *Anais (Lisbon)* 3(1/4):73-78. *Engl. Sum.*
- Saha, N. and Banerjee, B. 1971. Erythrocyte G-6-PD deficiency among Chinese and Malays of Singapore. *Trop. and Geog. Med.* 23(2):141-144. [In connection with malaria.]
- Sauter, J. and Quilici, M. 1971. Malaria contracted in France during the summer. *Presse Medicale* 79(12):524.
- Schultz, M. G. 1971. Eradication of gametocytes to prevent introduction of falciparum malaria. *Amer. Med. Assoc. J.* 216 (3):519-520.
- Seitz, H. M. 1971. Comparison of acridine orange and Wright's stain in the diagnosis of malaria. *Z. f. Tropenmed. u. Parasitol.* 22(2):136-138. *In Ger., Engl. Sum.*
- Sitprijia, V. 1971. Urinary excretion patterns in renal failure due to malaria: the effects of phenoxybenzamine. *Austral. and N. Zeal. J. Med.* 1(1):44-48.
- Umlas, J. and Fallon, J. N. 1971. New thick-film technique for malaria diagnosis. Use of saponin stromatolytic solution for lysis. *Amer. J. Trop. Med. and Hyg.* 20(4):527-529.
- Voller, A. and O'Neill, P. 1971. Immunofluorescence methodology suitable for large scale application to malaria. *WHO/MAL/71. 744*, 9 pp.
- WHO Expert Committee on Malaria. 1971. Fifteenth report. *WHO Tech. Rpt. Ser. No. 467*, 59 pp.
- World Health Organization. 1971. Persistent insecticides: protectors of health and environmental pollutants. *WHO Chron.* 25(5):206-208. [Includes DDT for malaria control.]
- . 1971. The place of DDT in vector control. *WHO Chron.* 25(5):201-205. [Chiefly mosquitoes and malaria.]
- . 1971. The work of WHO, 1970. Annual report of the Director-General to the World Health Assembly and to the United Nations. *WHO Off. Rec. No. 188*. 306 pp., Geneva [Includes malaria.]
- See also Janis et al. and Kortman in Techniques Section.

### Malaria—Cerebral

- Borochovitz, D., Crosley, A. L. and Metz, J. 1970. Disseminated intravascular coagulation with fatal haemorrhage in cerebral malaria. *Brit. Med. J.* 5711:710.
- Smitskamp, H. and Wolthuis, F. H. 1971. New concepts in the treatment of malignant tertian malaria with cerebral involvement. *Brit. Med. J.* 5751:714-718.

### Malaria—Eradication

- Augustin, A. and Popesco, A. 1970. Aspects médico-militaires de l'éradication du paludisme en Roumanie. *Revue Int. Servs. Santé Armées* 43(11):753-756. *Engl. Sum.*
- Bernieri, R. 1969. La colaboración de los servicios locales de salud in la campaña de erradicación de la malaria en el Estado Sucre. *Bol. Inform. (Dir. de Malariol. y San. Amb.)* 9(4):162-169.
- Gramiccia, G. and Hempel, J. 1971. The evolution of mortality for malaria in countries where malaria eradication is not making satisfactory progress. *WHO/MAL/71.745*, 14 pp.
- Rafatjah, H. 1971. The problem of resurgent bed-bug infestation in malaria eradication programmes. *J. Trop. Med. and Hyg.* 74(2):53-56.
- Ruziev, Kh. Kh. 1971. On the history of malaria eradication in Kirghizia. *Med. Parazit. i Parazit. Bolezni* 40(3):363-364. *In Rus., Engl. Sum.*
- Tabibzadeh, I., Behbehani, G. and Nakhai, R. 1970. Use of *Gambusia* fish in the malaria eradication programme of Iran. *WHO Bul.* 43 (4):623-626.

### Malaria—Immunology

- Barker, L. R. 1971. Experimental malaria: effects upon the immune response to different antigens. *J. Infect. Dis.* 123(1):99-101.
- and Powers, K. G. 1971. Immunosuppression in rodent malaria. Effect upon recovery and antibody response. *Amer. J. Trop. Med. and Hyg.* 20(3):389-393.
- Cohen, S. and Butcher, G. A. 1971. Serum antibody in acquired malarial immunity. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(2):125-135. [Discussion pp. 146-151.]
- Colwell, E. J., Bernier, G. M. and Fife, E. H., Jr. 1971. Serum immunoglobulin D and

- malaria antibodies in South Vietnamese residents. Roy. Soc. Trop. Med. and Hyg. Trans. 65(3):310-314.
- Desowitz, R. S. 1971. *Plasmodium berghei*: enhanced protective immunity after vaccination of white rats born of immune mothers. Science 172(3988):1151-1152.
- . 1971. The combined effect of maternal immunity and vaccination in producing a high level of protective immunity against *Plasmodium berghei* in the young white rat. WHO/MAL/71.742, 4 pp.
- Greenwood, B. M., Playfair, J. H. L. and Torrigiani, G. 1971. Immunosuppression in murine malaria. I. General characteristics. Clin. and Expt. Immunol. 8(3):467-468.
- Greenwood, B. M. and Voller, A. 1970. Suppression of autoimmune disease in New Zealand mice associated with infection with malaria. I. (NZB × NZW) F<sub>1</sub> hybrid mice. II. NZB mice. Clin. and Expt. Immunol. 7(6):793-803; 805-815.
- Lykins, J. D., Smith, A. R., Voss, E. W. and Ristic, M. 1971. Physical separation of three soluble malarial antigens from the serum of chickens infected with *Plasmodium gallinaceum*. Amer. J. Trop. Med. and Hyg. 20(3):394-401.
- McGregor, I. A. and Wilson, R. J. M. 1971. Precipitating antibodies and immunoglobulins in *P. falciparum* infections in The Gambia, West Africa. Roy. Soc. Trop. Med. and Hyg. Trans. 65(2):136-145. [Discussion pp. 146-151.]
- Seitz, H. M. 1971. Malaria-immunität der maus: übertragung mit Zellen. Naturwissenschaften 58(4):220-221.
- Voller, A. 1971. The detection and measurement of malarial antibodies. Roy. Soc. Trop. Med. and Hyg. Trans. 65(2):111-124. [Discussion pp. 146-151.]
- , Lelijveld, J. and Matola, Y. G. 1971. Immunoglobulin and malarial indices at different altitudes in Tanzania. J. Trop. Med. and Hyg. 74(2):45-52.
- Williams, A. I. O. and McFarlane, H. 1970. Immunoglobulin levels, malarial antibody titres and placental parasitaemia in Nigerian mothers and neonates. Afr. J. Med. Sci. 1(4):369-376.
- Malaria—Parasites*
- Aikawa, M. and Thompson, P. E. 1971. Localization of acid phosphatase activity in *Plasmodium berghei* and *P. gallinaceum*: an electron microscopic observation. J. Parasitol. 57(3):603-610.
- Angus, M. G. N., Fletcher, K. A. and Macgraith, B. G. 1971. Studies on the lipids of *Plasmodium knowlesi*-infected rhesus monkeys (*Macaca mulatta*). I. Changes in serum lipids. II. Changes in serum non-esterified fatty acids. Ann. Trop. Med. and Parasitol. 65(2):135-154; 155-167.
- Aung-Thun-Batu and U-Hla-Pe. 1971. Haemoglobinopathies in Burma. I. The incidence of haemoglobin E. Trop. and Geog. Med. 23(1):15-19. [*Plasmodium* spp. included.]
- Ayala, S. C. 1971. Sporogony and experimental transmission of *Plasmodium mexicanum*. J. Parasitol. 57(3):598-602.
- Butcher, G. A. and Cohen, S. 1971. Short-term culture of *Plasmodium knowlesi*. Parasitology 62(2):309-320.
- Das, S. and Mukherjee, A. M. 1970. Some morbid changes in the brain of mice due to *Plasmodium berghei* infection. Calcutta Schl. Trop. Med. Bul. 18(2):46-47.
- Dasgupta, B., Pal, N., Chatterjee, A. and Chatterjee, D. 1971. A new malaria parasite in *Hylopetes alboniger* Hodgson. Parasitology 62(2):195-197. [*Rayella hylopetei* n. sp.]
- Gutteridge, W. E., Trigg, P. I. and Williamson, D. H. 1971. Properties of DNA from some malarial parasites. Parasitology 62(2):209-219.
- Howells, R. E. and Bafort, J. M. 1970. Histochemical observations on the pre-erythrocytic schizont of *Plasmodium berghei*. Soc. Belges Méd. Trop. Ann. 50(5):587-594.
- Kitchen, A. G. and Di Luzio, N. R. 1971. Influence of *Plasmodium berghei* infections of phagocytic and humoral recognition factor activity. Reticuloendothelial Soc. J. 9(3):237-247.
- Langer, B. W., Jr. and Phisphumvidhi, P. 1971. The amino acid oxidases of *Plasmodium berghei*. J. Parasitol. 57(3):677-678.
- Okpala, I. 1971. Malaria parasite infection among school children in Epe, Western Nigeria. West Afr. Med. J. 20(3):257-259.
- Porter, J. A., Jr. 1971. *Plasmodium vivax* infections in *Aotus trivirgatus*. Amer. J. Trop. Med. and Hyg. 20(4):535-538.
- Scorza, J. V., Monteiro, C. C. and Scorza, C. 1971. Cytolysosomes in the erythrocytes of lizards infected with *Plasmodium* spp. Parasitology 62(1):63-69.
- Seitz, H. M. 1971. Comparison of antibody titers against *Plasmodium falciparum* in maternal and cord blood. Z. f. Tropenmed. u. Parasitol. 22(2):133-135. In Ger., Engl. Sum.
- Stutz, D. R. and Ferris, D. H. 1971. Inclusion of erythrocytes in the Ouchterlony test for *Plasmodium gallinaceum* precipitins. Ann. Trop. Med. and Parasitol. 65(2):131-133.
- Telford, S. R., Jr. 1971. A malaria parasite, *Plasmodium aurulentum* sp. nov. from the neotropical forest gecko *Thecadactylus rapicaudus*. J. Protozool. 18(2):308-311. [n. sp.]
- Thompson, J. H. 1971. Gametocytemia in falciparum malaria. Amer. Med. Assoc. J. 216(11):1866.
- Thuriaux, M. C. 1971. The nephrotic syndrome and *Plasmodium malariae* in the Yemen Arab Republic. J. Trop. Med. and Hyg. 74(2):36-38.
- Trager, W. 1971. A new method for intra-erythrocytic cultivation of malaria parasites

- (*Plasmodium coatneyi* and *P. falciparum*). J. Protozool. 18(2):239-242.
- Trigg, P. I. and Gutteridge, W. E. 1971. A minimal medium for the growth of *Plasmodium knowlesi* in dilution cultures. Parasitology 62(1):113-123.
- Viens, P., Chavalier, J. L., Sonea, S. and Yoeli, M. 1971. The effect of reticulocytosis on *Plasmodium vinckei* infection in white mice. Action of phenylhydrazine and of repeated bleedings. Canad. J. Microbiol. 17(2):257-261.
- Wilson, R. J. M. and Voller, A. 1970. Malarial S-antigens from man and owl monkey infected with *Plasmodium falciparum*. Parasitology 61(3):461-464.
- Malaria—Therapeutics and Antimalarials*
- Barlovtz, A. 1970. Emploi de la propoquine dans le paludisme à *Plasmodium falciparum*. Soc. Belges Med. Trop. Ann. 50(3):360-361.
- Bass, G. E., Hudson, D. R., Parker, J. E. and Purcell, W. P. 1971. Mechanism of antimalarial activity of chloroquine analogs from quantitative structure—activity structures. J. Medicinal Chem. 14(4):275-283.
- Brown, V. H., Keyanpour-Rad, M. and DeGraw, J. I. 1971. 3- and 4-carbazole dialkylamino-carbinols as potential antimalarial agents. J. Medicinal Chem. 14(6):549-550.
- Canfield, C. J., Whiting, E. G., Hall, W. H. and MacDonald, B. S. 1971. Treatment of acute falciparum malaria from Vietnam with trimethoprim and sulfalene. Amer. J. Trop. Med. and Hyg. 20(4):524-526.
- Cenedella, R. J. and Saxe, L. H. 1971. Partial reversal of the in vivo antimalarial activity of DDS against *Plasmodium berghei* by induced hyperglycemia. Amer. J. Trop. Med. and Hyg. 20(4):530-534.
- Garnham, P. C. C., Warren, M. and Killick-Kendrick, R. 1971. The action of "terramycin" on the primary exoerythrocytic development of *Plasmodium vivax* and *Plasmodium cyuomolgi ceylonensis*. J. Trop. Med. and Hyg. 74(2):32-35.
- Gerberg, E. J. 1971. Evaluation of antimalarial compounds in mosquito test systems. Roy. Soc. Trop. Med. and Hyg. Trans. 65(3):358-363.
- Gregory, M. H., Ruddy, D. A. and Wood, R. D. 1970. Differences in the retino-toxic action of chloroquine and phenothiazine derivatives. J. Pathol. 102(3):139-150.
- Gutteridge, W. E. and Trigg, P. I. 1971. Action of pyrimethamine and related drugs against *Plasmodium knowlesi in vitro*. Parasitology 62(3):431-444.
- Guéye, S. N. 1970. Sur un cas d'intoxication volontaire nivaquinique. Soc. Méd. Afr. Noire Lang. Fr. Bul. 15(1):104-106.
- Hiser, W. H., MacDonald, B. S., Canfield, C. J. and Kane, J. J. 1971. *Plasmodium vivax* from Vietnam. Response to chloroquine-primaquine. Amer. J. Trop. Med. and Hyg. 20(3):402-404.
- Huehne, W. H. 1971. Experience with an insecticide/drug combination and observations on suppressive chloroquine/pyrimethamine treatment. J. Trop. Med. and Hyg. 74(5):110-115.
- Hughes, J. T., Esiri, M., Oxbury, J. M. and Whitty, C. W. M. 1971. Chloroquine myopathy. Quart. J. Med. 40(157):85-93. [Not used against malaria in this case but side effects noted in prolonged doses.]
- Laing, A. B. G. 1971. The treatment of acute falciparum in The Gambia with BRL 50216 (WR 38839) (4, 6-diamino-1(3,4-dichlorobenzyloxy)-1,2-dihydro-2, 2-dimethyl-1, 3, 5-triazine, hydrochloride). WHO/MAL/71.740, 6 pp.
- Lantz, C. H. and Van Dyke, K. 1971. Studies concerning the mechanism of action of antimalarial drugs—II. Inhibition of the incorporation of adenosine-5'-monophosphate-<sup>3</sup>H into nucleic acids of erythrocyte-free malarial parasites. Biochem. Pharmacol. 20(6):1157-1166.
- Lowenthal, M. N., O'Riordan, E. C. and Hutt, M. S. R. 1971. Tropical splenomegaly syndrome in Zambia: further observations and effects of cycloguanil and proguanil. Brit. Med. J. 5746:429-432. [In connection with malaria.]
- Magus, R. D., Harrison, J. D. and King, S. W. 1971. Aminoquinoline antimalarials—paradoxical regulation of hepatic tryptophan oxygenase and tyrosine amino-transferase by primaquine. Biochem. Pharmacol. 20(2):486-489.
- Motabar, M. and Coauthors. 1971. A medicated salt project in the Kazeroun area, Iran—1962-1967. J. Trop. Med. and Hyg. 74(2):39-44.
- Ognibene, A. J. 1970. Agranulocytosis due to dapsone. Ann. Internal Med. 72(4):521-524.
- Perrott, A. 1971. Malaria prophylaxis and treatment. Brit. Med. J. 5761:588.
- Peters, W. 1971. Malaria. Chemoprophylaxis and chemotherapy. Brit. Med. J. 5753:85-98.
- . 1971. The chemotherapy of rodent malaria, XIV. The action of some sulphonamides alone or with folic reductase inhibitors against malaria vectors and parasites, part 4: the response of normal and drug-resistant strains of *Plasmodium berghei*. Ann. Trop. Med. and Parasitol. 65(2):123-129.
- Popoff, I. C., Singhal, G. H. and Engle, A. R. 1971. Antimalarial agents. 7. Compounds related to 4,4'-bis(aminophenyl)sulfone. J. Medicinal Chem. 14(6):550-556.
- Sietsma, A., Naughton, M. A. and Harley, J. D. 1971. Methaemoglobin levels in soldiers receiving antimalarial drugs. Med. J. Austral. 1(9):473-475.
- Singh, T. and Coauthors. 1971. Antimalarials. "Distal" hydrazine derivatives of 7-chloroquinoline. J. Medicinal Chem. 14(6):532-535.
- and ———. 1971. Antimalarials. 7-chloro-4(substituted amino)quinolines. J. Medicinal Chem. 14(4):283-286.
- Stuiver, P. C. and Coauthors. 1971. Clinical

- trial of malaria prophylaxis in tropical splenomegaly syndrome. *Brit. Med. J.* 5746:426-429.
- Trager, W. 1971. Further studies on the effects of antipantothenenates on malaria parasites (*Plasmodium coatneyi* and *P. falciparum*) *in vitro*. *J. Protozool.* 18(2):232-239.
- Vincke, I. H. 1970. The effects of pyrimethamine and sulphormethoxine on the pre-erythrocytic and sporogonous cycle of *Plasmodium berghei berghei*. *Soc. Belges Méd. Trop. Ann.* 50(3):339-358.
- Wharton, B. A. and McChesney, E. W. 1970. Chloroquine metabolism in kwashiorkor. *J. Trop. Pediat.* 16(3):130-132. [Also in connection with malaria.]
- Wolfensberger, H. R. 1971. Curative and suppressive treatment of *P. falciparum* malaria with oral and parenteral Fansidar. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):39-43.

#### Malaria—Antimalarials—Resistance

- Clyde, D. F., McCarthy, V. C., Shute, G. T. and Sangalang, R. P. 1971. Characterization of a drug resistant strain of *Plasmodium falciparum* from the Philippines. *J. Trop. Med. and Hyg.* 74(5):101-105.
- McKelvey, T. P. H. and Coauthors. 1971. Chloroquine-resistant falciparum malaria among British service personnel in West Malaysia and Singapore. *Roy. Soc. Trop. Med. and Hyg. Trans.* 65(3):286-304. [Discussion pp. 305-309.]
- Powell, R. D. and McNamara, J. V. 1970. Infection with chloroquine-resistant *Plasmodium falciparum* in man: prepatent periods, incubation periods, and relationships between parasitemia and the onset of fever in nonimmune persons. *N. Y. Acad. Sci. Ann.* 174(2):1027-1041.
- Smithurst, B. A. 1971. Resistant *Plasmodium falciparum* malaria cured by high quinine dosage. *Med. J. Austral.* 1(8):436-437.

#### YELLOW FEVER

- Brès, P., Robin, Y. and Héry, G. 1971. Neurovirulence de la souche française neurotrope du virus amaril: son étude par la sensibilité thermique du développement viral et l'analyse des populations virales obtenues par la méthode des plages. *Inst. Pasteur Ann.* 120(5):671-682. *Engl. Sum.*
- David-West, T. S. and Smith, J. A. 1971. Yellow fever virus infection: a correlation of a complement-fixing antigen with histopathology. *Brit. J. Expt. Path.* 52(2):114-121.
- De Haas, R. A., Oostburg, B. F. J., Sitalsing, A. D. and Beliot, S. M. 1971. Isolation of yellow fever virus from a human liver obtained by autopsy in Surinam. *Trop. and Geog. Med.* 23(1):59-63.
- Gatteff, C., Labusquiere, R. and Boisson, P. 1970. Risk of yellow fever in 5 countries of O.C.E.A.C. and methods of epidemic control. *Méd. Trop. (Marsille)* 30(5):642-653. *In Fr., Engl. Sum.*
- Mouchet, J. 1971. Surveys of potential yellow fever vectors in Gabon and Chad (21 October-7 November 1970). *WHO/VBC/71.279*, 10 pp.
- Pichl, H., Voss, H., Tetzlaff, J. and Bölke, H. 1970. Yellow fever vaccine production and control. II. Freeze-drying of yellow fever vaccine. Part A: The development of a chamber apparatus. *Zentbl. Bakteriol. Parasit. Infektionskr. u. Hyg. Abt. 1.* 215(3):404-428. *In Ger., Engl. Sum.*
- Voss, H. and Coauthors. 1969. Yellow fever vaccine production and control. I. The plaque titration of 17-D virus. *Zentbl. Bakteriol. Parasit. Infektionskr. u. Hyg. Abt. 1.* 209(4):447-464. *In Ger., Engl. Sum.*
- Wheelock, E. F., Toy, S. T. and Stjernholm, R. L. 1970. Lymphocytes and yellow fever. I. Transient virus refractory state following vaccination of man with the 17-D strain. *J. Immunol.* 105(5):1304-1306.

#### EXPERIMENTAL HOSTS OR VECTORS

- Bergold, G. H. and Munz, K. 1970. Characterization of Piry virus. *Arch. f. die Gesamte Virusforsch.* 31(1/2):152-167. [Experimental multiplication in *Aedes aegypti* and *A. albopictus*.]
- Ewers, W. H. 1971. Experimental infection of *Plasmodium berghei* in the fruit bat, *Dobsonia moluccensis*, after splenectomy. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):89.
- Gubler, D. J. and Battacharya, N. C. 1970. Susceptibility of *Aedes (Stegomyia) albopictus* to infection with periodic *Wuchereria bancrofti*. *Calcutta Schl. Trop. Med. Bul.* 18(2):41-43.
- Harinasuta, C., Sucharit, S. and Vutikes, S. 1971. Experimental studies on potential mosquito vectors of bancroftian filariasis. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):102-103.
- Ho, B. C. and Kan, S. P. 1971. The development of a filarial worm in the fat body of a mosquito. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):86.
- Kan, S. P. and Ho, B. C. 1971. Preliminary studies on the mode of nutrition of infective larvae of *Breimlia sergenti*. *Southeast Asian J. Trop. Med. and Pub. Health* 2(1):90-91. [In mosquitoes.]
- Landau, I., Chabaud, A. G., Michel, J. C. and Brygoo, E. R. 1970. Mise en évidence d'un double mode de transmission chez un Hépatozoon de reptiles malgaches. *Acad. Sci. Compt. Rend. (Paris) Ser. D* 270(19):2308-2310. [Includes mosquitoes.]
- Mangiafico, J. A. 1971. Chikungunya virus infection and transmission in five species of mosquito. *Amer. J. Trop. Med. and Hyg.* 20(4):642-645.
- Sempala, S. D. K., Kirya, B. G., Lule, M. and Ssaku, C. 1970. Arbovirus experimental studies. Zika virus in *A. apicoargenteus*. *East*



Afr. Virus Res. Inst. Rpt. No. 19:31-33. [*Aedes apicoargenteus*.]

Varma, A. K. and Coauthors. 1971. On *Setaria digitata*, its specific characters, incidence and development in *Aedes vittatus* and *Armigeres obturbans* in India with a note on its ectopic occurrence. Z. f. Parasitenkunde 36(1):62-72.

#### LIGHT AND OTHER TRAP STUDIES

Floore, T. G. and Grothaus, R. H. 1971. Conversion of the New Jersey light trap for collecting live mosquitoes in Da Nang, Vietnam. Mosquito News 31(2):221-222.

Hill, M. N. 1971. A bicycle-mounted trap for collecting adult mosquitoes. J. Med. Ent. 8(1): 108-109.

#### LITERATURE REFERENCES AND REVIEWS

Dukhanina, N. N. 1971. National literature on problems of medical parasitology and parasitic diseases for 1970. Med. Parazit. i Parazit. Bolezni 40(1):114-123; 40(2):241-247; 40(3): 371-378. In Rus. [Includes mosquitoes.]

Sollers-Riedel, H. 1971. Literature references to mosquitoes and mosquito-borne diseases. Mosquito News 31(2):302-318.

See also Field in Malaria Section.

#### BIOGRAPHY AND HISTORY

Gutsevich, A. V. 1971. In memory of Professor A. V. Maslov (1906-1971). Parazitologiya 5(3):295. In Rus.

Mosquito Systematics Newsletter. 1971. Notice. Mosquito Systematics Newsltr. 3(2):100-101. [This brief note concerns a partial list of publications on mosquitoes by Prof. A. V. Maslov.]

Surmanidze, R. D. 1971. Founder of the first malaria control station in Russia. (On the occasion of the centenary of S. S. Solovkin). Med. Parazit. i Parazit. Bolezni 44(1):104. In Rus.

#### SUBJECTS NOT COVERED BY OTHER HEADINGS

World Health Organization. 1971. The future of vector control. WHO Chron. 25(5):240-242. [Chiefly mosquitoes.]

———. 1971. Vector quarantine in air transport. WHO Chron. 25(5):236-239. [Chiefly mosquitoes.]

Zepp, H. D., Conover, J. H., Hirschhorn, K. and Hodes, H. L. 1971. Human-mosquito somatic cell hybrids induced by ultraviolet inactivated Sendai virus. Nature New Biol. 229(4):119-121.

#### BOOKS

Chen, T. T. (Editor). 1969. Research in protozoology. Vol. 3, 744 pp. Oxford. Pergamon Press Ltd. [Includes *Plasmodium*.]

Debré, R. and Celers, J. (Editors). 1970. Clinical virology. The evaluation and management of human viral infections. 871 pp., Philadelphia. W. B. Saunders Co. [Includes arboviruses.]

Dubitsky, A. M. 1970. The bloodsucking mosquitoes of Kazakhstan. 222 pp., Alma-Ata. In Rus. Nauk Kazakh. SSR.

Jackson, C. J., Herman, R. and Singer, I. (Editors). 1970. Immunity to parasitic animals. Vol. 2, 1084 pp., New York. Appleton-Century-Crofts. [Includes malaria.]

Jager, K. W. 1970. Aldrin, dieldrin, endrin and telodrin. An epidemiological and toxicological study of long-term occupational exposure. 234 pp., New York. Elsevier, N. Y.

#### NEW PERIODICALS OR NAME CHANGES

Nature (London) became three sections in 1971, as follows: Nature (Friday edition), Nature New Biology (Wednesday edition) and Nature Physical Science (Monday edition).

Royal Entomological Society of London Series B-Taxonomy Proceedings changed to Journal of Entomology Series B-Taxonomy.

[U. S.] Public Health Reports changed to HSMHA Health Reports. HSMHA is an abbreviation for Health Services and Mental Health Administration.