

much chemical, biological, and toxicological work on this promising insecticide before its potentialities and limitations can be fully known. As one would expect, DDT still holds the spotlight in the insecticide field. Due to its general availability, the public has had the opportunity to evaluate DDT. In spite of all the research conducted with DDT and its acclaim by the public there are still many things to be learned, particularly the many possible secondary effects of DDT applications.

It is assumed that because of the interest resulting from publicity given insect control during the war and the increased problems resulting from the war, the use of insecticides in the United States and other parts of the world will be greatly increased. The United States is expected to take a leading part in the production of insecticides for other countries. The development of DDT put new life and hope into our endeavor to find potent insect killers among chemical groups previously thought to hold little promise as insecticides. Many other new insecticide developments may be expected within the next few years. The author stresses the fact that synthetic organic insecticides are more or less specific and one must not expect any one of them to be a panacea. Thus the search for other insecticides to close the gaps in insect control must continue.—S. J. Carpenter, National Biscuit Company, New York, N. Y.

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WAR LOSSES AMONG INSECT COLLECTIONS AND ENTOMOLOGISTS IN JAPAN. By C. L. Remington. *Ann. Ent. Soc. Am.* 39(3):448-450. 1946. The author has assembled information on the extent of destruction to insect collections, particularly to types, and to casualties among entomologists in Japan. Most of the insect collections with their numerous types were undamaged. However, there were two exceptions both in Tokyo. The extensive slide collections of parasitic mites and mosquito pupae prepared by Y. Asanuma at the Research Institute of Natural Resources were completely destroyed by incendiaries. Few types, if any, were lost, because Asanuma's studies were in manuscript form; and the destruction of this manuscript before publication precluded the designation of any of the lost collection as types. The other loss due to incendiary raids on Tokyo was the collection of the Tokyo College of Agriculture, which contained the large number of aquatic Coleoptera assembled by Dr. K. Lamiya. Types of aquatic Coleoptera and some Staphylinidae were destroyed with this collection. There were no casualties from the bombing among entomologists in the home islands of Japan according to the information obtained by the author. The greatest loss to entomology from the raids was the literature. The stocks of numerous booksellers and publishers of Tokyo and the smaller cities were burned out completely.—LOUISE GOODE, Natl. Inst. Health, Bethesda, Md.

WAR LOSSES AMONG INSECT COLLECTIONS AND ENTOMOLOGISTS IN JAPAN. (Pérdidas de colecciones de insectos y entre los entomólogos en el Japón debidas a la guerra.) Por C. L. Remington. *Ann. Ent. Soc. Am.* 39(3):448-450. 1946.

El autor ha reunido datos sobre el monto de la destrucción de colecciones de insectos, especialmente de tipos, y acerca de las fatalidades que hubiera entre los entomólogos en el Japón. La mayor parte de las colecciones con sus numerosos tipos no sufrieron daño alguno. Hubo, sin embargo, dos excepciones en Tokio. Las extensas colecciones de láminas de ácaros parasíticos y ninfas de mosquitos preparadas por Y. Asanuma en el Instituto de Investigaciones de Recursos Naturales, fueron destruidas completamente por bombas incendiarias. A lo sumo, pocos tipos se perdieron, porque los estudios de Asanuma estaban todavía en forma manuscrita y la destrucción del manuscrito antes de que fuera publicado impidió que ejemplar alguno de la colección perdida fuese designado como tipo. La otra pérdida que se debió a los ataques contra Tokio con bombas incendiarias fué la colección de la Facultad de Agricultura de Tokio, la cual contenía el gran número de Coleóptera acuáticas reunido por el Dr. K. Lamiya. Algunos tipos de Coleóptera acuáticas, así como algunas Staphylinidae, fueron destruidos junto con esta colección. No hubo fatalidades entre los entomólogos en las islas principales del Japón a causa de los bombardeos, según los informes recibidos por el autor. La pérdida más grave sufrida por la entomología debida a los ataques fué la de la literatura. Las existencias de muchas librerías y casas editoriales de Tokio y de las ciudades de menor importancia fueron consumidas completamente por los incendios.—Translation of review by Louise Goode.

AEDES ATROPALPUS (COQ.) A NEW MOSQUITO VECTOR OF *Plasmodium gallinaceum* BRUMPT. By H. L. Trembley. *J. Parasit.* 32(5): 499-501. 1946. The author describes the infection of *Aedes atropalpus* with *Plasmodium gallinaceum*, compares the incidence and intensity of the infection in this species with those observed in *A. aegypti*, and records the transmission of the infection by *A. atropalpus* to the domestic fowl. In preliminary tests, 53 *A. atropalpus* were examined from 12 different lots, and 45 infected mosquitoes were found. Five tests were carried out to compare the incidence of infection, and 4 to compare the intensity of infection in the 2 species of mosquitoes. In each test, 100 *A. aegypti* were exposed to an infected chick, after which the engorged females were removed by means of a suction tube. The *A. atropalpus* were then applied singly to the same infected chick.

For comparison of incidence, the midguts, salivary glands, or both, were examined; and the *A. atropalpus* showed 78 positive out of a total of 87 mosquitoes (89.65 per cent); the

A. aegypti showed 56 positive mosquitoes out of 87, or only 64.35 per cent. For intensity studies, the midguts of 37 mosquitoes of each species were examined prior to the rupture of the oöcysts. The range in the number of oöcysts in *A. atropalpus* was from 0 to 479, with a mean of 111.94. In the *A. aegypti*, the range in the oöcyst counts was from 0 to 131, with a mean of 9.75.

P. gallinaceum was transmitted by *A. atropalpus* through 3 successive generations of chicks. The course of infection followed essentially the same pattern as that when the malaria was transmitted by *A. aegypti*.—LOUISE GOODE, National Inst. Health, Bethesda, Md.

AEDES ATROPALPUS (COQ.) A NEW MOSQUITO VECTOR OF *Plasmodium gallinaceum* BRUMPT. (*Aedes atropalpus* (Coq.) Un Nuevo Mosquito Vector del *Plasmodium gallinaceum* Brumpt.) Por H. L. Trembley. J. Parasit. 32(5):499-501. 1946. El autor describe la infección del *Aedes atropalpus* por el *Plasmodium gallinaceum*, confronta la incidencia y la intensidad de la infección en esta especie con las observadas en el *A. aegypti*, y deja constancia de la transmisión de la infección por el *A. atropalpus* a la ave doméstica. En pruebas preliminares, 53 *A. atropalpus* tomados de 12 grupos distintos fueron examinados, y fueron hallados 45 mosquitos infectados. Se llevaron a cabo cinco pruebas para comprobar la incidencia de infección y cuatro para averiguar la intensidad de infección en las dos especies de mosquitos. En cada prueba, 100 *A. aegypti* fueron expuestos a un polluelo infectado, retirándose después las hembras engullidas por medio de un tubo de succión. En seguida los *A. atropalpus* fueron aplicados uno por uno al mismo polluelo infectado.

Con el fin de hacer una comparación de la incidencia, los intestinos medios, las glándulas salivares, o ambos, fueron examinados. El *A. atropalpus* dió 78 positivos de un total de 87 mosquitos (89.65 por ciento); el *A. aegypti* dió 56 mosquitos positivos en 87, o sea, solamente 64.35 por ciento. Para los estudios sobre la intensidad, se examinaron los intestinos medios de 37 mosquitos de cada especie antes de la ruptura de las cápsulas larvarias. El número de cápsulas larvarias en los *A. atropalpus* fluctuó entre 0 y 479, con un promedio de 111.94. En las *A. aegypti*, la fluctuación en la cuenta de cápsulas larvarias fué entre 0 y 131, con un promedio de 9.75.

P. gallinaceum fué transmitido por los *A. atropalpus* a través de tres generaciones sucesivas de polluelos. El curso seguido por la infección fué más o menos el mismo que el seguido cuando el paludismo se transmitía por *A. aegypti*.—Translation of review by Louise Goode.

CONTRIBUCIÓN AL ESTUDIO DE LA BIOLOGÍA DEL "*A. maculipennis* VAR. *atroparvus*" EN FUNCIÓN DEL AMBIENTE. DENSIDAD Y CICLO ANUAL. (Contribution to the Study of the Biology of

A. Maculipennis var. *Atroparvus* in Relation to Environment. Density and Annual Cycle.) By Alvaro Lozano Morales. Rev. Sanid. e Hig. Publ. 20(3):239-250. 1946. Madrid, Spain. An interesting study of the influence of certain environmental factors on the annual cyclic change in density of *A. maculipennis* var. *atroparvus*. The author stresses the importance of determining anopheline density in anti-malarial work and in so doing justifies a study of factors influencing density. The observations were made in an insectary which is described in detail and in which meteorological data were carefully recorded. In addition, weekly systematic collections were made in a typical native shelter to obtain comparative data from the natural environment.

The data obtained are presented under the headings: Material and method; number of generations; variations in sex; and seasonal variation of anopheline density, and are accompanied by 2 diagrams, 2 charts, and a table. According to the author's interpretation of the data, 7 generations were produced in the insectary and 9 in the field. The variation in numbers between the sexes, consisting in a greater number of females than males, is accounted for by the shorter life span of the male. The cyclic seasonal variation in density consists of lows in March-April and July-August-September, with highs in May-June-July and October-November. Reproductive activity is not interrupted at any time but cyclic density of *atroparvus* during the period of malaria is the result of: (1) maximum density, conditioned by temperature, humidity, and rains; (2) mortality, influenced primarily by temperature; and (3) median density, by humidity. The article is an excellent presentation of specific data, with a careful and modest summary by the author.—DON M. REES, University of Utah, Salt Lake City, Utah.

CONTRIBUCIÓN AL ESTUDIO DE LA BIOLOGÍA DEL "*A. maculipennis* VAR. *atroparvus*" EN FUNCIÓN DEL AMBIENTE. DENSIDAD Y CICLO ANUAL. Por el Doctor Alvaro Lozano Morales, Director del Instituto Antipalúdico de Naval Moral de la Mata. 20(3) Marzo de 1946, 239-250, Rev. Sanid. e Hig. Públ. Madrid, España.

Un estudio muy interesante de la influencia de ciertos factores en el ambiente sobre los cambios en la densidad del *A. maculipennis* var. *atroparvus* durante el ciclo anual. El autor subraya la importancia de la determinación de la densidad anofelina en el trabajo antipalúdico y, al hacerlo, justifica el estudio de factores que ejercen una influencia sobre esta densidad.

Las observaciones fueron hechas en un insectario del cual se hace una descripción detallada y en el cual se llevó un registro exacto de los datos meteorológicos. Además, se hicieron capturas sistemáticas semanalmente en un abrigo indígena típico para obtener datos comparativos de un ambiente natural.

Se presentan los datos obtenidos bajo los siguientes rubros: Material y método; número