

rápidamente para que los mosquitos ya no estuvieran en condiciones de comer. La reacción de los mosquitos silvestres era idéntica a la de los criados en el laboratorio. Los datos indican que un contacto sumamente corto con residuos de DDT es suficiente para causar la muerte de la mayor parte de las hembras de *Anopheles gambiae* dentro de un período de 24 horas después de estar expuestas a los mismos.

(Translation of a review by Louise Goode, National Institute of Health, U. S. Public Health Service, Bethesda, Md.)

THE TRANSMISSION OF *Plasmodium gallinaceum* BY *Aedes (Ochleratus) lepidus*. W. Lobato Paraense. Memórias do Oswaldo Cruz 42(1): 81-84. February 1945.

Experimental transmission of *Plasmodium gallinaceum* to chicks in the laboratory of the Division of Endemiology has been carried on with *Aedes aegypti* during the past four years; but, because of the yellow fever danger in that part of Brazil, it was thought advisable to seek a substitute vector. Among the many mosquitoes furnished for study were some larvae from rock-holes. These were reared to the adult stage, found to be a new species, and subsequently described as *Aedes lepidus* Cerqueira and Paraense (Mem. Inst. Osw. Cruz 42(1):11-15).

Rearing procedures for the larvae were similar to those for *A. aegypti*, and immature forms were raised with ease. The adults, however, were reluctant to bite, and success in feeding blood-meals was attained only with individuals isolated in Borrel tubes. Even under these conditions, relatively few took blood, with a resulting small egg production. Six generations were reared before the author's absence led to the loss of the colony. Dr. Paraense, however, expressed the intention of procuring more material to continue biological and morphological investigations.

Transmission was effected with two groups of *A. lepidus*. The lots of the first group fed on highly infected chicks and showed 100 per cent infection in 50 samples. The oöcyst count was low, the highest being only 56. The second group fed on moderately infected chicks; 28 out of 50 mosquitoes dissected were positive. Transmission to chicks was accomplished through the bites of infected mosquitoes and by subcutaneous inoculation of a trituration of infected salivary glands. All chicks exposed were infected, and the course of the infection was similar to that transmitted by *A. aegypti*.—H. L. T.

14092
THE MOSQUITOES OF JAPAN AND THEIR IMPORTANCE. Tsai-Yu Hsiao and Richard M. Bohart. NAVMED 1095, Bureau of Medicine and Surgery, Navy Dept. Washington, D. C. 44 pp., 27 illus., 58 refs.

Entomologists concerned with taxonomic problems of Oriental mosquitoes will welcome this review of the mosquitoes of the main Japanese

Islands and the Bonin Islands. The original literature on the Japanese mosquitoes to a large extent has been unavailable to those unfamiliar with the Japanese language. This paper by Hsiao and Bohart summarizes for the English speaking entomologists the important knowledge that is available regarding the mosquitoes of this region.

Keys are presented to the adult females and fourth stage larvae. The authors were able to examine 35 of the 44 Japanese species; information concerning the remaining species was obtained from the literature. Following the keys, the species are listed, with notes on taxonomy, distribution, biology, and relation to disease. *Anopheles sinensis* Wiedemann is considered to be a species instead of a subspecies of *hyrcanus*. Evidence is presented which indicates that *Anopheles edwardsi* Yamada, 1924, is a synonym of *A. koreicus* Yamada and Watanabe, 1918, or at most a variety of this species. *A. edwardsi* is thought to be a cold water form.

The distribution and incidence of infection of the four mosquito-borne diseases of Japan are given, as well as the evidence incriminating the vector species. Filariasis is especially prevalent in the southernmost islands and the Ryukyus. The authors refer to Yamada's conclusions that *Aedes togoi*, *Culex pipiens pallens*, *C. vagans*, and *C. whitmorei* are especially susceptible to infection, and that *C. sinensis*, *C. tritaeniorhynchus* and *Anopheles sinensis* are less so. Japanese "B" encephalitis is widespread in Japan, with epidemics usually occurring during hot summer weather. Japanese workers have shown that *Culex pipiens pallens*, *C. tritaeniorhynchus*, and *Aedes togoi* can be infected, and the virus is even said to be capable of passing from generation to generation in *C. pipiens pallens*. Malaria is not a serious problem in Japan, although it is more common in the southern Ryukyus. The vector is *Anopheles sinensis*. Dengue is transmitted by *Aedes aegypti* and *A. albopictus* in the Japanese Islands. *A. aegypti* has not been found on the main islands, and here the disease appears to be carried by *A. albopictus*.

The authors refer to three cases of yellow fever which had been reported from Japan, but point out that they were probably not indigenous.

(Lloyd E. Rozeboom, Dept. of Parasitology, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.)

THE MOSQUITOES OF JAPAN AND THEIR MEDICAL IMPORTANCE. (LOS MOSQUITOS DEL JAPÓN Y SU IMPORTANCIA MÉDICA.) Por Tsai-Yu Hsiao y Richard M. Bohart. NAVMED 1095, Bureau of Medicine and Surgery, Navy Department, Washington, D. C., 44 pp., 27 illus., 58 refs.

Los entomólogos que se interesan en los problemas taxonómicos de los mosquitos del Lejano Oriente recibirán con agrado este estudio sobre los mosquitos en las principales islas del Japón y en las islas Bonín. En el original, gran parte de la literatura sobre los mosquitos japo-