

REVIEWS AND ABSTRACTS

HELEN LOUISE DURKEE

A FIELD GUIDE TO COMMON MOSQUITOES OF CALIFORNIA. By the Entomology Committee of the California Mosquito Control Association. Editor, Dr. E. C. Loomis, Bureau of Vector Control, Calif. State Dept. of Publ. Hlth. 1959. 30 pp. 80 figs. 1 chart. (\$1.00 per copy. Address G. E. Washburn, Sec'y, C.M.C.A., P. O. Box 629, Turlock, Calif.) The Entomology Committee of the California Mosquito Control Association and the Bureau of Vector Control of the California State Department of Public Health have again produced a fine publication of value to mosquito workers everywhere. With Dr. E. C. Loomis as editor, a 30-page, plastic-bound brochure has been produced covering 25 of the 43 species of mosquitoes found in California, including those species which are important in the mosquito abatement districts.

The booklet contains keys to the females and larvae, short biological notes, a glossary of terms, and a tabulation by counties of the occurrence of all 43 California species. The keys are most unusual in having 3 or more line drawings interpolated between the couplets on each page. This procedure has made it possible to refer to each character in the couplets, usually without even turning a page. The characters have been well-chosen, and the line drawings by C. J. Stojanovich are among the best published in a mosquito book anywhere in the world. This reviewer has only one minor technical criticism; he would like to see a few dark scales on the tip of the palpus of *Anopheles franciscanus*, figure 23.

Mosquito control activities would be far easier and more effective if every area had a booklet with as workable keys, fine illustrations, and good biological notes on the important species.—Harry D. Pratt, Communicable Disease Center, U.S.P.H.S., Atlanta 23, Georgia.

ACTION OF REPELLENTS ON MOSQUITOES FEEDING THROUGH TREATED MEMBRANES OR ON

TREATED BLOOD. Bar-Zeev, M. and Smith, C. N. J. Econ. Ent. 52(2):263-267. 25 refs. 1959. A method for testing repellents against *Aedes aegypti* (L) feeding on citrated blood through an artificial membrane is described. Repellents were applied at various concentrations on the membrane or in the blood, and the concentration required to give 50% repellency was determined. The percentage of mosquitoes that fed was affected by the time between anesthesia by carbon dioxide or cold and feeding. The second factor was not a critical one. When applied on the membrane or in the blood, diethyltoluamide was the strongest repellent, followed by dimethyl phthalate and ethyl hexanediol. Dimethyl phthalate applied on the membrane probably acted as a vapor repellent only. There were indications that blood acted as a vapor stimulant in feeding. Rabbits injected intravenously with diethyltoluamide did not repel the mosquitoes, nor did the blood taken from injected rabbits and offered through a membrane. It was concluded that the repellent was removed from the blood very rapidly.—Authors' abstract.

CONTROL OF MOSQUITO LARVAE IN LOG PONDS IN OREGON. Lewis, L. F. and Eddy, G. W. J. Econ. Ent. 52(2):259-260. 1959. DDT, heptachlor, and malathion emulsions at 1, 3, and 6 pounds of technical material per surface acre were used in tests for the control of mosquito larvae in log ponds in the general vicinity of Corvallis, Oreg. Protection against reinfestation ranged from 3 to 6 weeks for DDT, 5 to 10 weeks for heptachlor, and 2½ to 6 weeks for malathion. *Culex pipiens* L. was the dominant species in ponds in June and July; *C. stigmatosoma* Dyar predominated in August, September, and October. Except in the cooler months from October through May, *Culex tarsalis* Coq., *C. territans* Walker, and *Culiseta incidens* (Thompson) were represented by relatively small percentages.—Authors' abstract.

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