

ans; she has no common English name.

Edwin Seabrook, Entomologist and Technical Adviser on mosquito control for Palm Beach and Martin counties, has found that *Mansonia* larvae, unlike those of most other mosquitoes, do not come to the surface to breathe. Instead, they bore into the hollow, air-filled bulbs that serve as floats for the water hyacinth and get their air in that way. They also drill into the hollow stems of cattails and water lettuce.

This trick keeps them safely beneath the level of suffocating oil spread on the surface, which dooms top-breathing mosquito "wigglers". The only way to abate these pests is to destroy their semi-submerged air reservoirs in the stems of aquatic plants.

Use of the hollow floats of the water hyacinth by this mosquito species is interesting, for it represents an adaptation to a relatively new element in the environment. Water hyacinth is not a native plant; it was introduced from abroad many years ago because of its beautiful violet flowers, and has now spread until it clogs navigation on many Southern streams and lakes.

By Dr. Thomas J. Headlee,
Entomologist,
Agricultural Experiment
Station,
New Brunswick, N. J.

In the American Journal of Hygiene, Vol. 34, No. 2, pp. 86-94, 1941, R. E. Watson and H. C. Maher record data on the effect of mosquito-proofing houses against Anopheles quadrimaculatus. In this study 98 houses were proofed and 45 were non-proofed. The findings indicate that mosquito-proofing gives considerable protection against malaria. It was concluded that while

the findings justify the extension of these studies and their continuance under more controlled conditions, the amount of data accumulated and the period of time covered being only one year, could not justify hard and fast conclusions.

- - - - -

In the American Journal of Hygiene, Vol. 34, No. 2, pp. 102-113, 1941, G. E. Smith, R. B. Watson and R. L. Crowell record data bearing on the distances that Anopheles quadrimaculatus moves away from the point of breeding.

The first set of experiments consisted in the liberation of 3800 stained mosquitoes between June 15th and August 8th. All likely accessible resting places within 1 1/4 miles were inspected daily. The figures show that only 6 out of 3800 mosquitoes released were recovered and that they were recovered at distances of 2700, 1050, 675, 675, 600 and 375 feet from the point of release. These results were obtained in a territory where an abundance of blood supply was available within 1000 feet of the point of release.

The second set of records is concerned with a blood film study of persons living in some 900 houses scattered more or less uniformly over an area within one mile of Lake Wilson. Positive results were obtained from 145 houses, 104 of which were within 3000 feet of the shore of the lake while only 2 were more than 5000 feet distant.

The third set of records was concerned with collections of females within 2 miles of a large natural pond where mosquito production was moderate and in a section in which all production in secondary breeding places was controlled. The figures show that the mosquito population fell off regularly as the distance from the

and increased but that some individuals were collected more than a mile from it. Endemic infections among the population appeared to be associated, broadly at least, with the observed density of Anopheles quadrimaculatus.

The fourth study was concerned with malaria parasite indices in dwellings less than 3000 feet, between 3000 feet and one mile and more than one mile from the impounded river and showed 23% within the area of less than 3000 feet, 8% within the area between 3000 feet and one mile and 7% in the area of more than a mile.

The data from these various studies is considered to indicate that a mile is the limit of flight range of Anopheles quadrimaculatus under conditions of heavy infestation and that transmission of malaria is the greatest within 3000 feet of breeding places when sources of blood are available throughout the area.

In the Z. Angew. Ent., Vol. 28, pp. 501-506, 1941, J. Komerack and V. Breindl record survey work in Bohemia and Moravia in 1940. These workers state that Anopheles fed indiscriminately on man and any available domestic animals. They were abundant in village cow-houses and almost completely absent from adjoining bedrooms. This was due, not to a preference for the blood of the cattle, but to the microclimate resulting from the warmth and moisture produced by these animals in the dark, dirty, ill-ventilated and very warm cowhouses of the peasantry. The mosquitoes did not occur in the cowhouses on large estates, which are airy, light and clean, and have whitewashed walls.

In the Transactions R. Society Tropical Medicine and Hygiene, Vol. 35, No. 2, pp. 51-76, 1941, G. M. Findlay records yellow fever as occurring in Africa from the southern borders of the Sahara to the Belgian Congo, and from the West Coast to the Anglo-Egyptian Sudan and Uganda. The most striking African rural epidemic is one that recently occurred in the Sudan

but much smaller ones were observed on the Gold Coast. There is no evidence that Aedes aegypti was not a vector in all of them though other mosquitoes may have played an accessory part.

In the Chin. Medical Journal, Vol. 60, No. 1, pp. 66-72, 1941, J. H. Jordan and W. J. Silvey record laboratory and field studies of the comparative value of phenothiazine, paradichlorobenzene, tetralin, trichlorethylene and pyrethrum extracts as mosquito larvicides. These materials were used in a mixture of equal parts of kerosene and Diesel oil. Combination with water was obtained by emulsification with soap flakes. A mixture of para-dichlorobenzene and pyrethrum extract was most effective. Tetralin and pyrethrum extract were also good, sometimes exceeding para-dichlorobenzene. The results obtained with trichlorethylene and phenothiazine were disappointing. Tetralin was slightly toxic to mosquito-eating fish but had no ill effects on ducks kept in ponds. Paradichlorobenzene appeared toxic to neither fish nor ducks, but the trichlorethylene emulsion rapidly killed the fish and had a toxic effect on ducks.

In the American Journal of Tropical Medicine, Vol. 21, *9. 3, pp. 767-777, 1941, P. F. Russell and T. Ramachandra Rao record a study of the effect of the surface tension of water on the behavior of Anopheline larvae and show that while it is possible to reduce surface tension to a point where the larvae drown, such conditions do not ordinarily occur in nature.

In the American Journal of Hygiene, Vol. 34, No. 2, pp. 95-101, 1941, C. C. Kiker and H. E. Breedlove record the cost of mosquito-proofing about 350 houses in the Tennessee Valley in 1938 and 1939 as averaging \$33.00 per house.

Reference is made to an article on the use of nail
kegs for Anopheles traps which appears in the May Issue
of The American Journal of Tropical Medicine Vol. 22,
No. 3, pp. 257.

- - - - -

The proceedings of the 29th Annual Meeting of the New
Jersey Mosquito Extermination Association, which meeting
was held on March 11, 12 and 13, 1942, are now available
for distribution. The report makes a book of 166 pages,
with 27 illustrations.

The book is priced at \$1.25, and may be secured by
writing:

New Jersey Mosquito
Extermination Association,
New Brunswick, New Jersey.