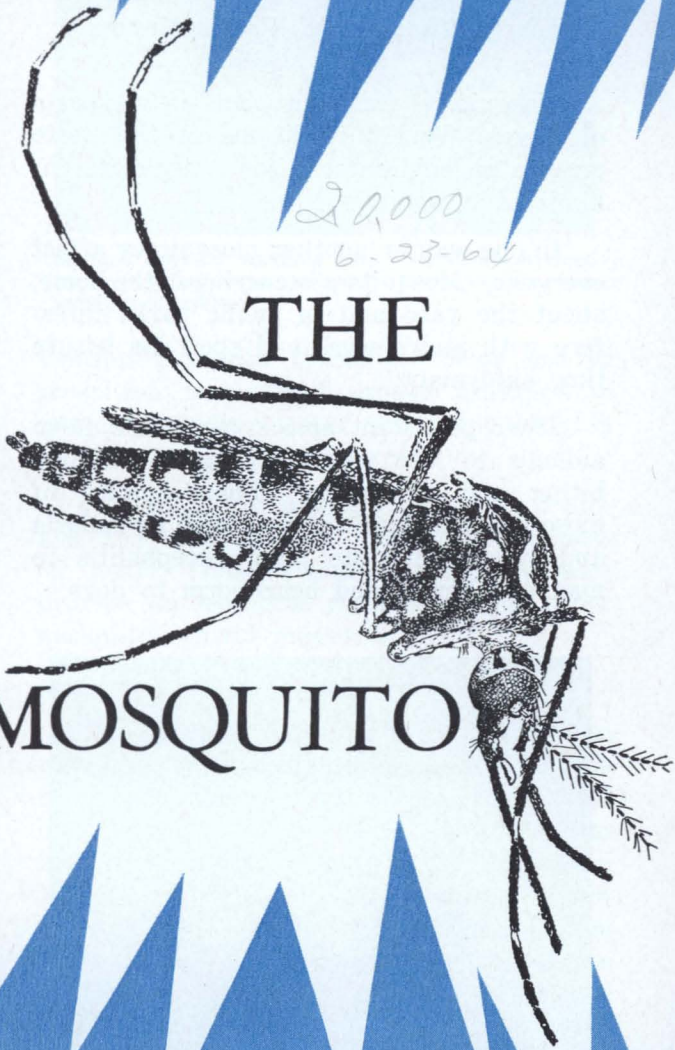
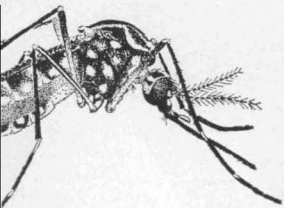


20,000
6-23-64

THE



MOSQUITO



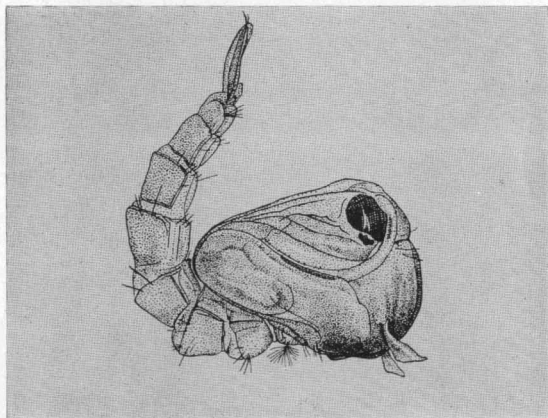
The Mosquito

*John G. Thomas and Weldon Newton**

Mosquitoes are a problem in all parts of Texas. Varied conditions in the State provide an environment for many different kinds of mosquitoes.

In one way or another mosquitoes affect everyone. Mosquitoes occurring in the home, about the yard and in public parks interfere with man's work and spoil his leisure time enjoyment.

Their persistent attack can cause farm animals to lose weight through continual biting and annoyance. Some species of mosquitoes transmit disease such as malaria and yellow fever to man, encephalitis to man and horses and heartworm to dogs.



Greatly enlarged drawing of the mosquito pupa that transmits yellow fever, *Aedes aegypti* L.

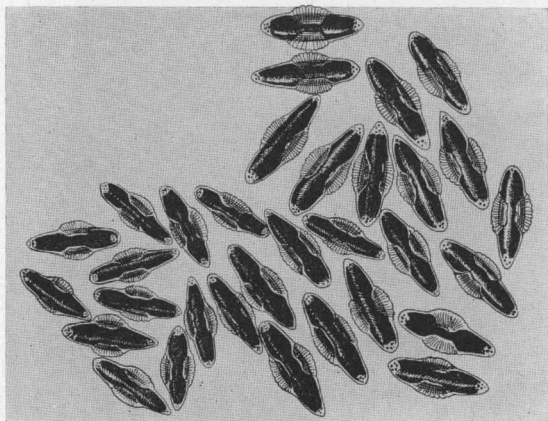
How Mosquitoes Live

In extreme South Texas mosquitoes may breed throughout the year but in most areas

**Respectively, associate Extension entomologist and assistant Extension entomologist, Texas A&M University.*

they breed primarily in the spring, summer and fall months.

All mosquitoes pass through four stages of development — **egg**, **larva (wiggler)**, **pupa** and **adult**. Although habits of different kinds of mosquitoes vary greatly, they all require water to produce their young. Female mosquitoes lay their eggs on water or in places that later become flooded. The eggs are elongate, about 1/40 inch long in most species and dark brown or black when ready to hatch. They usually are laid in clusters of about 50 to 200, and several clusters may be laid by one female.

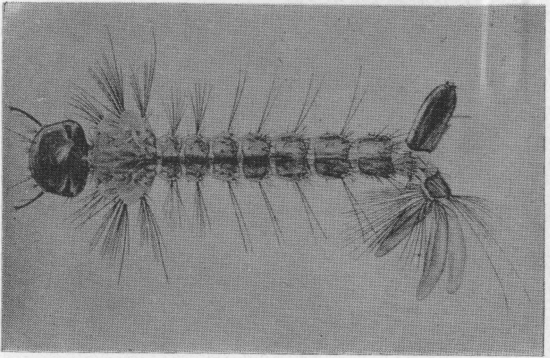


Cluster of *Anopheles* mosquito eggs, highly magnified.

In warm weather, the eggs of most species hatch in 2 or 3 days. However, some species require a drying period. They may remain dormant for many months, then hatch within minutes after being flooded by a spring or summer rain, or a tide.

Larvae (wigglers) that hatch from the eggs feed mainly on bits of organic matter in the water. Most species must come to the water's surface for air, and may have an elongated tube for breathing through the surface film.

Larvae usually change to pupae within a week. Pupae are comma-shaped forms,



Aedes larva (wiggler) with air tube (upper right) used to obtain air at the water's surface.

sometimes called tumblers because of their tumbling motion in water when disturbed. Pupae usually become adults in about 2 days. In another day or two, the female adults are ready to feed. Male mosquitoes do not bite.

What You Can Do

Effective mosquito control is often a complex and expensive task, frequently requiring the cooperative efforts of individual home owners as well as such groups as industry, agriculture, state and local governments.

Home Owners

Home owners should take every precaution to prevent breeding on their premises by eliminating standing water. Some of the more common problem areas include (1) dripping outdoor faucets and leaky pipes, (2) puddles resulting from evaporative cooler drainage and (3) tin cans and other articles which might trap and hold even small quantities of water. The proper use of insecticides around the home also aids in controlling mosquitoes.

Agriculture and Industry

People engaged in agriculture, particularly where irrigation is involved, should observe proper water management in pre-



Shallow, stagnant, standing water with debris or floating vegetation is an extremely favorable area for mosquito breeding.

venting mosquito breeding. Wise use of irrigation water and proper drainage to prevent standing water will aid greatly in reducing mosquito numbers.

In the field of industry, adequate drainage and re-circulating systems to dispose of water from manufacturing processes provide an essential complement to other mosquito control measures.

State and Local Governments

The interest and resources devoted to mosquito control by governments depends to a large extent on the expressed interest of the people. City and county governments often support mosquito control through direct financial support or indirect general management and sanitation. The State Health Department and other State agencies can provide technical assistance and information related to mosquito problems.

Organized Mosquito Control

To obtain effective mosquito control, an organized effort, including control operations over large areas, often is necessary. Complex and variable conditions make it essential to have available technical assist-

ance and trained mosquito control workers on a permanent basis. Trained personnel with authority to work over large areas often are able to affect mosquito control not possible by other means.

The State of Texas has recognized that organized mosquito control often is desirable and has passed legislation enabling any county or group of counties to create mosquito control districts.

Additional Information

If you desire additional information about mosquito control or the organization of mosquito control districts, contact one of the following:

- Texas Agricultural Extension Service, through your local county agent or the Extension entomologists at College Station, Texas
- State Health Department
- Texas Mosquito Control Association

ACKNOWLEDGMENTS

This publication was prepared in cooperation with a committee of the Texas Mosquito Control Association which included representatives of the Texas Agricultural Extension Service, State Department of Health, University of Texas and Mosquito Control Districts. Special thanks are extended to Dr. R. L. Ridgway, former Extension Entomologist, for his assistance in the development of this publication.