

MOSQUITO PESTS OF MAN AND ANIMALS

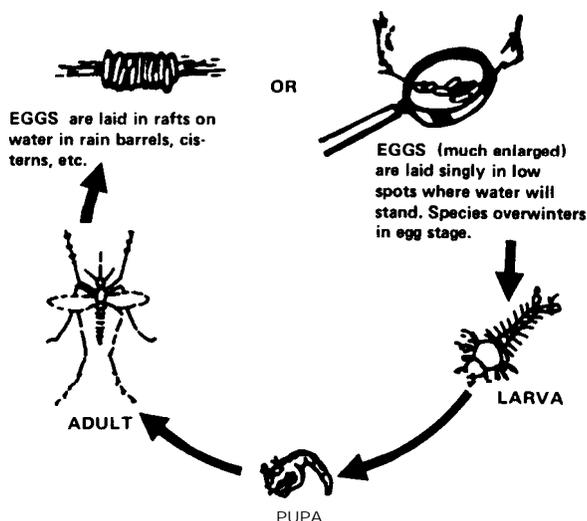
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Mosquitoes are one of the most important insect pests that affect the health and well-being of man and his domestic animals. Because of the variety of environmental conditions favorable to the development of mosquitoes, vast annoying populations can occur anywhere in Texas. Female mosquitoes produce a painful bite during feeding and can transmit a number of disease-causing organisms to man and animals. Loss in property values and animals' production efficiency often can be traced to mosquito occurrence and feeding.

Life History

Mosquitoes pass through four distinct stages during their lifetime. The egg, larva and pupa stages occur in water, while the adult stage is free flying.



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Mosquito eggs may be laid singly or in groups called rafts on the surface of water. Some species of mosquitoes lay eggs out of water, but in places subject to flooding or submersion by rising water. In warm water, eggs may hatch in 2 to 3 days.

Mosquito larvae, often called wigglers, hatch from eggs and require water for development. Most mosquito larvae breathe by projecting an air tube through the water surface. Mosquito larvae commonly feed on small aquatic organisms and other plant and animal debris found in the water habitat.

After 4 to 10 days, mosquito larvae mature to the pupal stage. Mosquito pupae are characteristically comma shaped and, like the larvae stage, breathe through air tubes. Mosquito pupae are sometimes called tumblers because of their tumbling motion in water when disturbed.

Public Health Importance

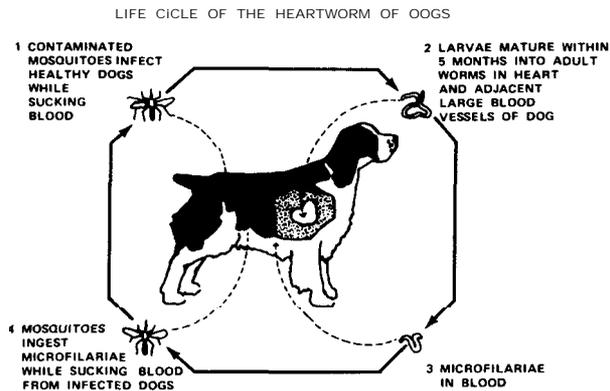
Mosquitoes are known to transmit several important disease-causing organisms to man and animals. Encephalitis, dengue, filariasis, yellow fever, and malaria have affected man in mosquito infested areas throughout history. Encephalitis and occasional cases of malaria remain as important mosquito-borne diseases in Texas. Heartworm in dog is also a common mosquito-borne disease in the humid eastern area and coastal plains of Texas.

Encephalitis is a viral inflammation of the brain and is caused by mosquitoes infected with the causal virus feeding on man, horses and mules. Birds serve as important natural hosts for the virus in the disease cycle. Public health officials often survey migrating bird populations to determine the incidence of virus and the potential for transmission to man and animal by feeding mosquitoes.

Three virus strains, Eastern and Western equine encephalitis and St. Louis encephalitis, are known to occur in Texas. Symptoms in humans include high fever, convulsions, delirium and other characteristic central nervous system dysfunctions. Medical assistance should be obtained quickly if symptoms occur.

Heartworm

Mosquito control is important for pet owners because they transmit heartworm in the dog. Heartworm can cause severe circulatory problems in dogs and produce symptoms such as coughing, labored breathing and general loss of vitality in advanced stages. Because of the impracticality of protecting dogs from mosquito feeding, the most effective means of controlling heartworm is to prevent worms from reaching the adult stage. Veterinarians can prescribe drug treatment to protect pets during the mosquito season.



Mosquito Control

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

Applications of methoxychlor spray to vegetation, tree trunks and walls of buildings and catch basins will effectively control certain adult mosquitoes. Commercially available insecticide resin strips and aerosol bombs control adult mosquitoes in the home. Properly maintained window screening and use of insect repellents on the skin and clothing can provide considerable protection against mosquito bites.

You should . . . eliminate containers such as old tires, buckets, cans and bottles that collect and hold rain water. Also, discard old pieces of plastic that can collect water and become good breeding sites for mosquitoes.



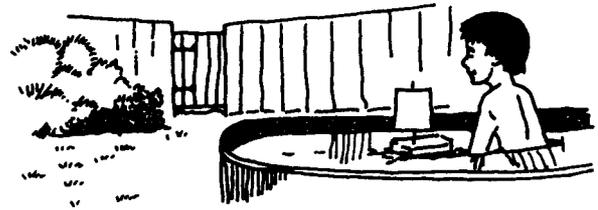
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You should . . . Empty your plastic wading pool weekly and store it indoors when not in use. Fill holes or depressions in trees with sand or mortar, or drain after each rain.



You should . . . Repair leaky pipes and outside faucets, and connect open waste-water drains to a sewage system or construct separate sump or leach lines.



You should . . . Change water and scrub vases and pots holding flowers or cuttings twice each week-or grow cuttings in sand; scrub and change water in bird baths twice weekly; empty watering pans of pets and check livestock watering troughs and tanks.



Organized Mosquito Control

Because of the complexity of controlling mosquito populations, technical assistance may be required. Mosquito control personnel may be required on a permanent basis and communities may wish to investigate the desirability of an area-wide approach. Legislation enabling various groups to form mosquito control districts has been passed in Texas. Personnel of the Texas Department of Health, Austin, Texas can provide information on the establishment of a control district.