

Mosquitoes

Diptera: Culicidae

Description:

Immature stages: First instar larvae are small (1 mm), nearly clear and develop through three more instars, increasing to nearly 1 cm. The pupal stage appears with the fourth molt.

Adult stages: Adult mosquitoes are true flies about 1 cm long. They have long, thin legs, wings, and antennae, and male mosquitoes' antennae appear feathery. Other true flies can resemble mosquitoes, but lack the long, thin mouthparts that form a proboscis.

Biology:

Life Cycle: Eggs are deposited on the surface of standing water or areas that will become saturated, such as salt marshes, swamps, roadside ditches, containers such as tires, buckets and planters, and various drainage systems. After eggs hatch, larvae develop through four instars. Under ideal conditions of warm temperatures and abundant food (small plants, animals, and particles of organic matter), the larval stage may only require 5-6 days before pupation. The pupal stage is a period of transition and often requires 2-3 days.. Male and female mosquitoes both feed on nectar and plant juices to provide energy for flight, but only female mosquitoes seek a blood meal for the nutrients needed to stimulate egg production.

Distribution: There are 63 known species of mosquitoes in Georgia, but only 10-12 are pests to man. The saltmarsh mosquitoes *Aedes taeniorhynchus* and *Ae. sollicitans* are common pests along the coast, *Culex quinquefasciatus* is our primary West Nile vector and *Ae. albopictus* is our most common container breeder.

Damage:

Mosquito-borne diseases account for hundreds of thousands of human deaths each year and spread by the bite of an infected mosquito. Diseases carried by mosquitoes include Malaria, West Nile virus, Eastern equine encephalitis, Chikungunya virus, and dengue.

Management:

Standing water must be eliminated wherever possible. Containers and common yard items (planters, tarps, tires, drainage pipes, etc.) are particularly problematic. Larval populations that can't be eliminated through source reduction can be treated with approved larvicides. If nuisance or public health risks are identified, targeted adulticide applications can be initiated, preferably in the evening to minimize contact with pollinators. The Georgia Pest Management Handbook has a list of approved larvicides and adulticides. The Georgia Mosquito Control Association provides historical and current mosquito-related information.



Mosquito larvae on left & middle, pupal stage on the right



Adult *Aedes albopictus* (Asian tiger mosquito)



Larvae developing in standing water