About Mosquitoes

Mosquitoes are flying, biting insects that develop in water during their immature stages. Some of the many species found in New York are considered pests and can transmit diseases to humans.

The three most important mosquito groups are the

- Anopheles (carrier of malaria),
- Culex (carrier of viral encephalitis and West Nile),
- and Aedes (pronounced "AY-dees"; carrier of yellow fever, dengue, encephalitis and most recently, Zika).

All are less than 0.5-inch (1.3 cm) long as adults.

Although mosquitoes are usually a nuisance and sometimes dangerous to public health, complete eradication is unrealistic.

A more reasonable goal is population reduction and management below problem levels. This goal relies greatly on public education and awareness.

A mosquito's life: from water to air

Mosquitoes have four life stages: the egg, larva, pupa, and adult.

Eggs are laid on the surface of water (Culex and Anopheles types) or damp soil that is soon to flood (Aedes type). Most eggs hatch within 48 hours.

The larvae live in water and breathe at the surface through tubes. Larvae, or wrigglers, feed on organic debris and microorganisms in the water, then molt into pupae, a resting stage that remains in the water. During this time the mosquito develops into an adult. After two days the pupal skin splits and the adult emerges. The length of this life cycle varies by species from 4–30 days.

An adult female mosquito usually must take a blood meal before laying eggs. Females have elongated piercing-sucking mouthparts used to penetrate your skin and ingest blood from the host. A component of mosquito saliva prevents blood clotting and causes itching and swelling. Saliva is the means for disease movement into the host. Blood protein is used to produce and mature the eggs.

Male mosquitoes feed on nectar, not on blood. Their mouthparts are not designed for piercing.

Public Health Concerns

Mosquito-borne illnesses have plagued humans throughout history.

Modern vector control and monitoring programs have greatly reduced the incidence of yellow fever, malaria, and encephalitis viruses. Eastern equine encephalitis (EEE), St. Louis encephalitis (SLE), and West Nile encephalitis (WNE) remain significant diseases that have recently afflicted people in New York.

Management includes intense surveillance for mosquito outbreaks and routine monitoring for diseases.

What Can You Do?

Because mosquitoes can breed in small pools of standing water containing leaves or other debris, backyards can be the perfect habitat. Rain gutters, cups, cans, and birdbaths are prime breeding sites. When given a breeding site, mosquitoes will stay in the area. To reduce mosquito populations and the need for pesticides, you must regularly inspect your surroundings for potential breeding areas and disrupt these sites.

Prevent mosquito breeding

- Dump out standing water from containers in the yard, including recycling bins with bottle caps and cans, tires, boats, and tarps.
- Clean debris from rain gutters early in spring and check them regularly. If you are unable to clean them, ask your pest control technician. Clogged gutters account for many mosquitoes.
- Clean, filter, and treat pools. Empty children's pools and turn them over when not in use. Keep pool covers clean by propping them up to drain water.
- Encourage natural enemies. For example, stock ornamental ponds with goldfish. Mosquitofish eat mosquito larvae. Dragonflies and damselflies are also mosquito predators.
- Construct goldfish ponds properly. Large goldfish are unable to reach sloping edges of ponds where mosquitoes breed, so be sure your pond has vertical sides. A pond fountain will also reduce mosquito breeding.
- Change the water in birdbaths and fountains twice a week.

What Does Exodus Do?

First and foremost, we establish realistic expectations. Mosquitoes, inevitably, are a fact of life and no program will completely eliminate them all. With that said, our program will offer relief so you can enjoy your back yard without getting completely carried away!

Our approach to Mosquito Management, utilizing inspection, insect growth regulators and botanically derived insecticides, aligns with our commitment to Integrated Pest Management (IPM). It is an environmentally responsible, low impact program that addresses the nuisance and potential public health concern of mosquitoes and the dangers they pose such as West Nile, Encephalitis and Zika. Acceptable control can be achieved while posing minimal risk to our valuable pollinators like honey bees, bumble bees, butterflies as well as other non-target species.

Here's what we do:

Initial Inspection

- Inspect your property for the root causes (breeding areas) outlined above
- Make recommendations on fixing those issues to minimize breeding sites
- Measure the property boundaries and landmarks (buildings, pools, trees and shrubs)
- Draw a graph of property targeting treatment areas and “hotspots”
- Price service according to treatment area

Initial Treatment

- Apply granular growth regulators to interrupt mosquito development to wet areas
- Mist botanical materials to eliminate adult mosquitoes in bushes, trees, shrubs and other resting areas (flowering plants are avoided).
- Flag your property boundaries that an application was made
- Leave service report outlining treatment and proofing recommendations

21 Day Maintenance Treatments*

- Re-apply granular growth regulators as needed
- Mist botanical materials to eliminate adult mosquitoes in bushes, trees, shrubs and other resting areas (flowering plants are avoided).
- Flag your property boundaries that an application was made
- Leave service report outlining treatment and proofing recommendations