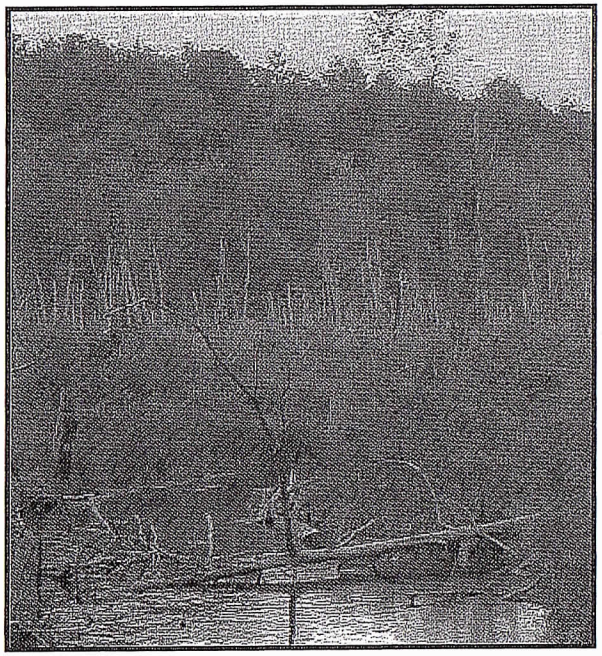
The Importance of Wetlands

Most wetlands do not offer favorable breeding conditions for Culex pipiens, unless they have been contaminated. Chief sources of organic contamination include the introduction of untreated or poorly treated sewage into a wetland. Old or failing septic systems and manure run-off from farms, may lead to inadvertent wetland pollution. All of these problems should be corrected as they can threaten both the well being of the wetland, and of the water resources of which the wetland is a part. Wetlands are important for flood control, in filtering pollution from water, and in serving as reservoirs for biodiversity.

For More Information:

If you have questions about mosquitoes and their habitats, please call the Dutchess County Health Department at 486-3421. Or call [redacted] at: 677-5253 for the latest information on Culex pipiens and how to control this particular mosquito species without harming the environment.



The Dutchess County [redacted]
Farm & Home Center
2715 Route 44, Suite 2
Millbrook, NY 12545
(845) 677-5253
[redacted]

Mosquitoes and Wetlands

What You Need to Know

Prepared by The Dutchess County
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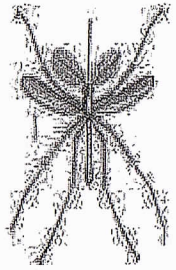
Mosquitoes and Wetlands



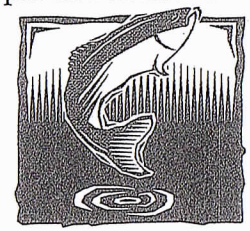
Mosquitoes can be found in wetlands as well as in waters ranging from a four hundred square mile marsh to a child's rain-filled footprint. Many wetland habitats, however, are not important mosquito producers and many mosquitoes do not come from habitats we ordinarily consider wetlands. This fact is one of particular importance today as we attempt to develop effective methods to prevent the introduction of the West Nile Virus, which is believed to be carried by the mosquito, *Culex pipiens,* into our communities.

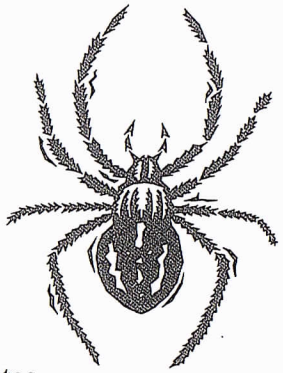
Mosquito Life Cycle

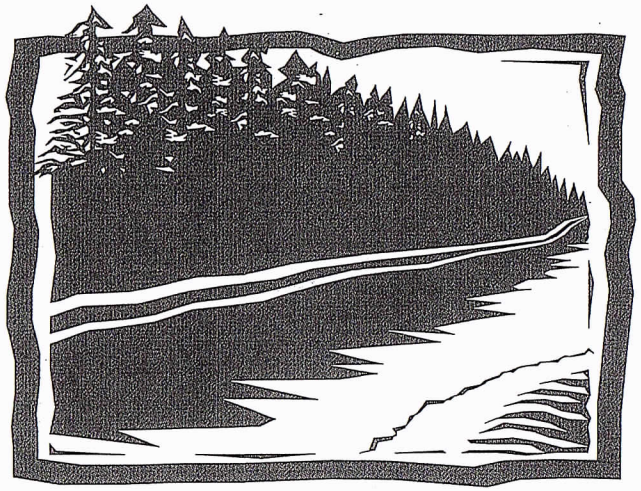
Mosquitoes lay their eggs on the water surface or on surfaces that will be flooded at higher water levels. These intermittent-flooding habitats can include the exposed bottoms of woodland pools in the fall, the inside walls of tree holes, and other natural and artificial containers. Eggs hatch quickly after they are laid in permanent waters, or following flooding in temporary habitats. The larva or wriggler is aquatic, with different species foraging for food on or near the bottom or at the surface of their chosen habitat, with most swimming to the surface to breathe air. Standing water must persist for at least several days (four to five in the case of *Culex pipiens*) in order to produce adult mosquitoes, although larval development may take weeks or months if temperatures are low or food is scarce.

Where do they Breed?

The larval habitats favored by different species of mosquitoes appear to share certain features. All must hold water for at least several days, provide shelter from strong currents or wave action, provide abundant food particles, and offer some degree of protection from predators. Waters lacking fish (intermittent wood land pools, tree holes, and artificial containers such as old tires) and sectors of aquatic habitats with restricted access to fish (due to dense vegetation or debris) are favorable to mosquitoes in general. For these reasons, fresh running streams and water bodies known to harbor fish are less likely to host significant mosquito populations. In addition to fish, mosquitoes are eaten by bats, swallows, shore birds, ducks, spiders, dragonflies, true bugs, beetles, and other invertebrates.







Where to find *Culex pipiens*

To date, the mosquito species *Culex pipiens* is the primary suspect in the transmission of West Nile Virus in the United States and it is one of the mosquito species that the State and County Health Departments are targeting in their efforts to prevent the spread of West Nile Virus. That effort is currently centered upon eliminating potential breeding habitats for *Culex pipiens.* The availability of motionless, organically polluted water found in such artificial containers such as old tires, discarded bottles, cans and cups are a favorite breeding site. Wetlands that have not been seriously degraded by organic pollution are not favored sites for *Culex pipiens* to breed. Conversely, the stagnant water found in gutters plugged with rotting leaves, water filled old tires, and waters of well used bird baths do provide rich breeding habitats. By eliminating these potential breeding grounds for *Culex pipiens* around our homes and in our neighborhoods, we can help curb the population of this mosquito species, and reduce the risk of West Nile Virus appearing in our communities.