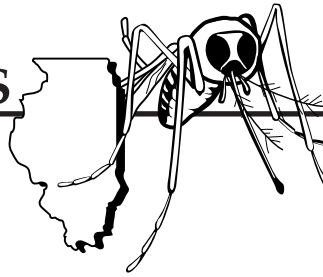
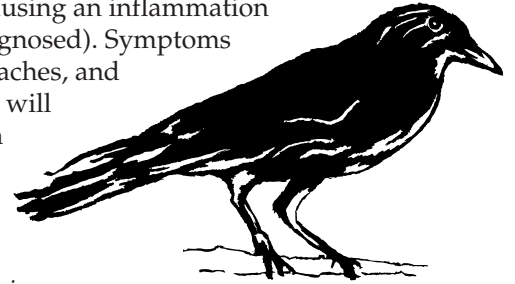
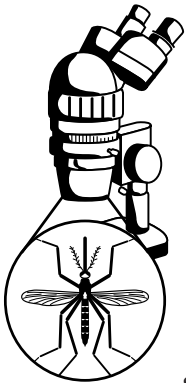


# WEST NILE VIRUS & MOSQUITOES



## West Nile Virus

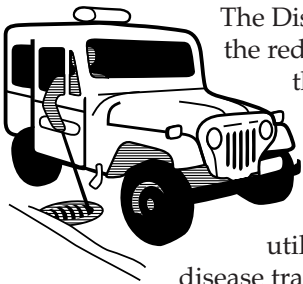
WNV was first found in northern Illinois in 2001. In 2002, an epidemic of WNV in Illinois resulted in 884 human cases of the disease with 66 deaths. WNV is caused by a virus that cycles between mosquitoes and birds, with occasional spill-over into humans and other mammals. The virus can have a high mortality in certain bird species while having little effect on other bird species. Crows and Blue Jays are extremely susceptible to the virus, as are eagles, hawks, and other raptors. Humans are considered a dead-end host for the virus, which cannot be transmitted from person to person. WNV affects the central nervous system causing an inflammation of the brain. Most human infections are subclinical (mild and not diagnosed). Symptoms associated with mild cases of WNV are low fever, headache, body aches, and swollen lymph glands. Less than 1% of people infected with WNV will develop severe illness. In more severe cases, symptoms can be high fever, neck stiffness, muscle weakness, stupor, coma, tremors, paralysis, and in 3-15% of severe human infections, death. People over 50 are most susceptible to WNV, but all ages are at risk.



Mosquitoes from the genus *Culex*, in particular the species *Culex pipiens*, can spread WNV from birds to birds and birds to humans. These mosquitoes deposit their eggs directly on the water's surface. They are most abundant in periods lacking rainfall when areas of stagnant water prevail. They are well adapted to many habitats including curbside storm water catch basins, off-road storm water catch basins, discarded tires, buckets & other artificial containers, rain gutters, bird baths, unused swimming pools, ditches, ponds, etc. Anywhere that water can stand for more than a week can become a potential breeding site for *Culex* mosquitoes. The adult mosquito is a non-aggressive biter with feeding primarily confined to evening or night hours. It seldom travels more than ½ mile from its breeding grounds. The *Culex* mosquitoes can have many over-lapping generations each season and over-winter as adults.

## The Desplaines Valley Mosquito Abatement District

THE DESPLAINES VALLEY Mosquito Abatement District encompasses a 77 square mile area in the western suburbs of Chicago. The District is comprised of Lyons, Oak Park, Proviso, Riverside, and River Forest townships and includes thirty-one villages.



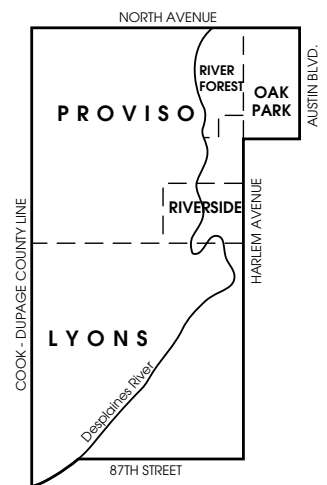
The District is an independent municipality, established in 1927. Our goal is the reduction of mosquito annoyance and potential disease transmission by the mosquito, using the safest and most environmentally sound methods available.

### Disease Vector Control

The District takes the threat of mosquito-borne diseases seriously and utilizes a number of control strategies to abate mosquitoes capable of disease transmission. These include:

1. storm water curbside and off-road catch basin treatments,
2. general larval control operations encompassing vector and nuisance mosquito control,
3. discarded tire collections,
4. mosquito-eating fish distribution,
5. a variety of public education efforts to minimize vector mosquito breeding around their property.

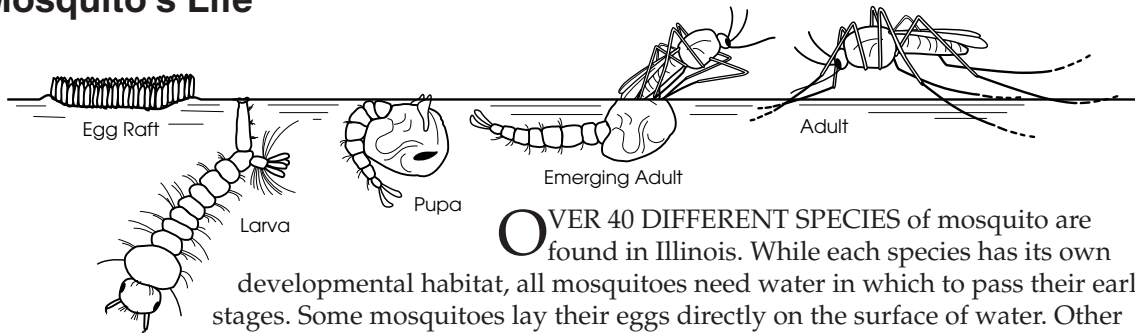
The Desplaines Valley Mosquito Abatement District wants and needs your help in controlling mosquitoes. Follow the suggestions in this handout and contact us if you have questions or wish to notify us of areas of standing water.



Call us at 708-447-1765.

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## The Mosquito's Life



**O**VER 40 DIFFERENT SPECIES of mosquito are found in Illinois. While each species has its own developmental habitat, all mosquitoes need water in which to pass their early life stages. Some mosquitoes lay their eggs directly on the surface of water. Other mosquitoes lay their eggs in areas that will eventually fill with water. Once eggs come in contact with water, they hatch into larvae within several days. Mosquito larvae undergo four stages of growth and development called instars. Larvae feed on organic material and microorganisms in the water and return to the surface of the water to breathe. Larval development may be as rapid as 5-7 days in warm weather. After the larval stages are complete the larvae shed their skins and emerge as comma-shaped pupae. Pupae are very active and dive vigorously if disturbed. Pupae do not feed while they undergo metamorphosis to the adult stage. The adult mosquito emerges from the pupal skin and rests on the water's surface until it dries.

Both male and female adult mosquitoes feed on plant nectar, but only the female bites to get the blood needed for the development of eggs. While some kinds of mosquitoes can live several months, the main nuisance mosquitoes we have in this area usually survive four weeks or less. Not all mosquitoes can carry disease, nor are all mosquitoes vicious biters. Some kinds of mosquito never bite humans. Mosquitoes also vary in the distances they travel from the water they developed in. While some species will not stray more than a block or two from their source, other species' flight range can be 20 miles or more. The great diversity between different species of mosquitoes makes their control more complex, requiring a variety of approaches and methods.

## How you can help

Since disease carrying mosquitoes develop in stagnant water, places that can hold water for more than a week are potential sources of mosquitoes. Many potential breeding sites can be found around the home. These include old tires, buckets, wheelbarrows, clogged rain gutters, childrens' wading pools, etc. In addition, disease carrying mosquitoes are "home bodies" and tend to stay near their breeding sites. Residents can take the following simple steps to eliminate potential sources for these mosquitoes.

- Throw away all trash that can hold water (cans, jars, tires, etc.).
- Clean rain gutters and downspouts to prevent water from standing in gutters or on flat roofs.
- Change water in bird baths, wading pools, etc. at least once a week. Maintain swimming pools properly.
- Keep ditches and streams on or around property free of grass clippings, garbage, and other debris to insure proper flow.
- Stack pails, barrels, tubs, wheelbarrows, and similar containers upside down.
- Stock ornamental ponds with goldfish or other surface-feeding fish to control mosquito production (mosquitofish are available free from the District).
- Clean out and fill treeholes.
- Dispose of used tires properly. The District is a licensed waste tire hauler, and is able to take tires to a shredding facility. For residents with four or fewer tires to dispose of, contact the District for assistance.

