

# Monitoring Mosquitoes to Prevent West Nile Virus

## 2024

### Mosquitoes Can Spread Serious Diseases

- We test ditches, retention ponds, and other water sources for mosquito larvae to prevent mosquito-related illnesses, most notably West Nile virus. Sites with high *Culex* mosquito activity are treated.
- It's important to track mosquitoes because as Wisconsin gets warmer and wetter from climate change, we can expect to see higher mosquito populations and activity. Mosquitoes are an important spreader of diseases that can make humans sick.
- West Nile virus is carried by mosquitoes and is the [most common mosquito-borne illness in the U.S.](#) One out of 5 people who are infected show symptoms, and 1 out of 150 people develop a serious and sometimes fatal illness.
- West Nile virus has been regularly found (endemic) in Dane County since 2003. Before 2020, we tested dead birds for West Nile because birds can also get the virus. You can report sightings of dead birds to the [Wisconsin Department of Natural Resources](#).
- West Nile virus disease in humans is relatively rare in Dane County and Wisconsin, but does fluctuate a lot. In 2024, the rate of West Nile virus disease in Dane County was 1.0 per 100,000; it was 0.54 per 100,000 in Wisconsin.

### How We Track Mosquitoes

- In 2024, we sampled 691 locations for mosquito larvae in Madison, Middleton, Monona, Sun Prairie, and on the UW-Madison campus. We made 2,362 total inspections to those sites. [Results are on our dashboard.](#)
- Sites are on public property, such as in parks. We primarily sample ditches, retention ponds, and detention ponds—places mosquito larvae is likely to be found.
- We sample for mosquito larvae along the water's edge by quickly skimming the surface of the water with a dipper (plastic cup on a pole). Samples at each location are a mix of one to ten dips.
- We then take the sample back to the lab and look for larvae. We look for two species of mosquito larvae that spread the most disease.
- When three or more *Culex* larvae are found per dip, the site is treated with larvicide, a chemical that kills mosquito larvae.



**Culex** mosquitoes are the most common carriers of West Nile virus. Reducing this mosquito population is important in preventing West Nile virus in humans.

**Aedes** mosquitoes can also carry West Nile virus, although this is less common. They are also vectors for some other mosquito-borne illnesses, such as La Crosse encephalitis.



## What We Found



**4.8%** of all inspected sites had **Culex** mosquito larvae present. A total of 36 treatments were performed at 22 separate sites.

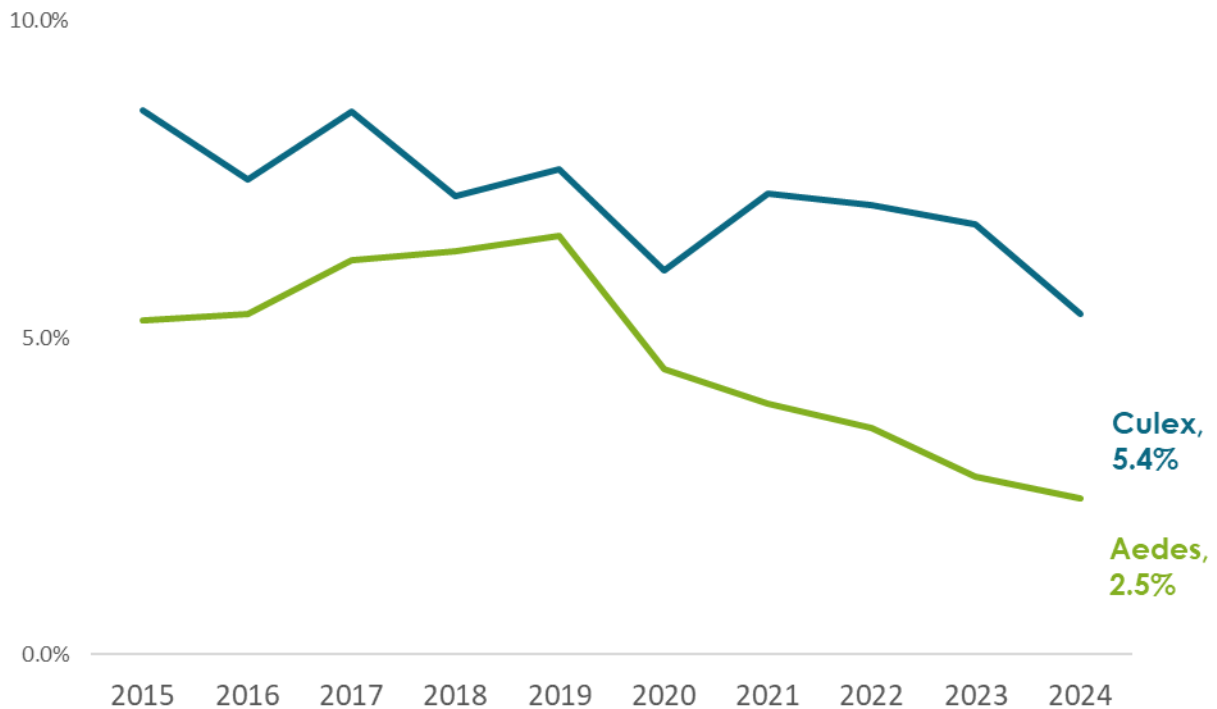


**3.6%** of all sites had **Aedes** mosquito larvae present.



**6** cases of West Nile virus in humans were found in Dane County in 2024. Since 2002, there have been **56** total cases and **2** deaths related to West Nile virus in Dane County.

### Percentage of sites with high levels of **Culex** and **Aedes** mosquitoes, 3-year rolling averages, 2015-2024



## How to Prevent Mosquito-Related Illnesses

Mosquito-related illnesses, like West Nile, are preventable:

- Mosquitoes like to lay eggs in standing water. They don't need a lot of water, so be sure to get rid of any standing water, even if it's shallow. Drain any standing water in your outdoor living areas. You might see water accumulating in clogged gutters, air conditioners, tarps, wheelbarrows, plant debris, flower pots, watering cans, pet dishes, or birdbaths.
- Use insect repellents on skin and clothing before heading outdoors during mosquito season (May-September).
- Wear long-sleeved shirts, pants, socks, and shoes outside during peak mosquito activity hours.
- Learn more on the [Department of Health Services website](#).