

Monitoring Mosquitoes to Prevent West Nile Virus

2023

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 impacts on mosquito populations. 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.](#) 1 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 is relatively rare in Wisconsin, but does fluctuate a lot. An average of [16 West Nile cases are found each year in Wisconsin](#) (2002—2022) but some years are higher and some are lower.



How We Track Mosquitoes

- In 2023, we sampled 694 locations for mosquito larvae in Madison, Middleton, Monona, Sun Prairie, and on the UW-Madison campus. We made 2,361 total inspections to those sites. View the results [on our website](#).
- Sites are on public property, such as in parks. Approximately 44% are ditches and 40% are detention or retention ponds. Other sites include rain gardens, marshes, creeks, flooded areas, and golf course ponds.
- 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.



Culex mosquitoes are the most common carriers of West Nile virus. Controlling these mosquitoes are the most important factor 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



5.2% of all sites had **Culex** mosquito larvae present. A total of 76 treatments were performed at 35 separate sampling sites.

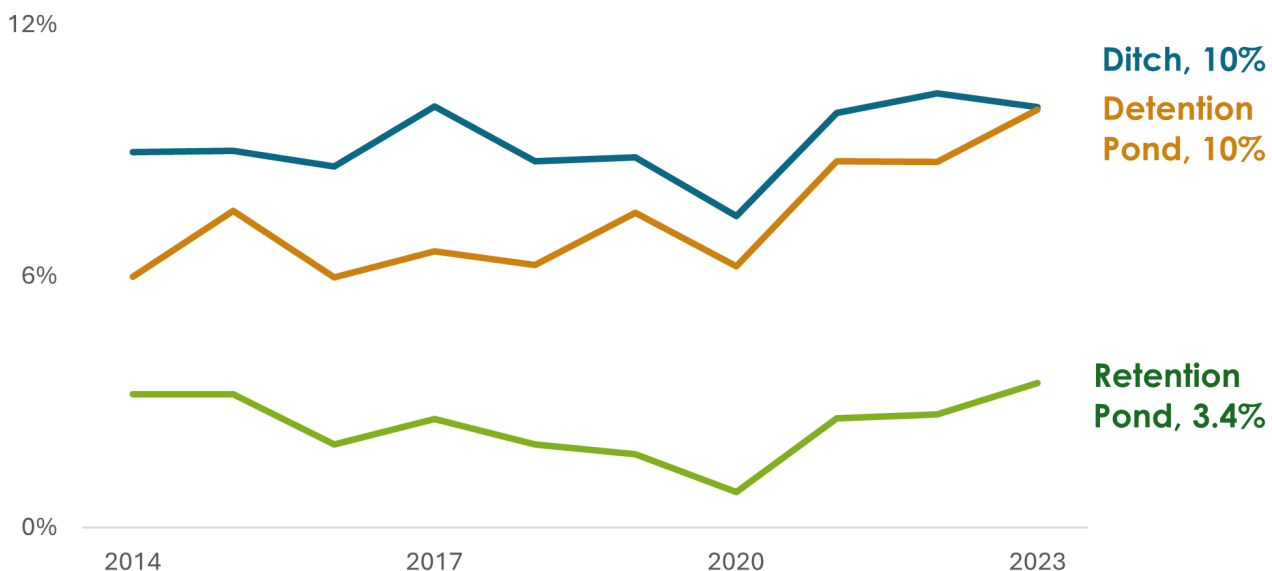


0.4% of all sites had **Aedes** mosquito larvae present.



7 cases of West Nile virus in humans were found in Dane County in 2023. Since 2002, there have been **51** total cases and **2** deaths related to West Nile virus in Dane County.

Ditches and **detention ponds** are more likely to have **Culex** mosquito activity than **retention ponds** (3 year rolling average)



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, 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](#).

Updated May 2024