NORTHWEST MOSQUITO ABATEMENT DISTRICT

Keeping the community safe

Weekly mosquito report for epidemiological week 22 (June 1 – June 7).

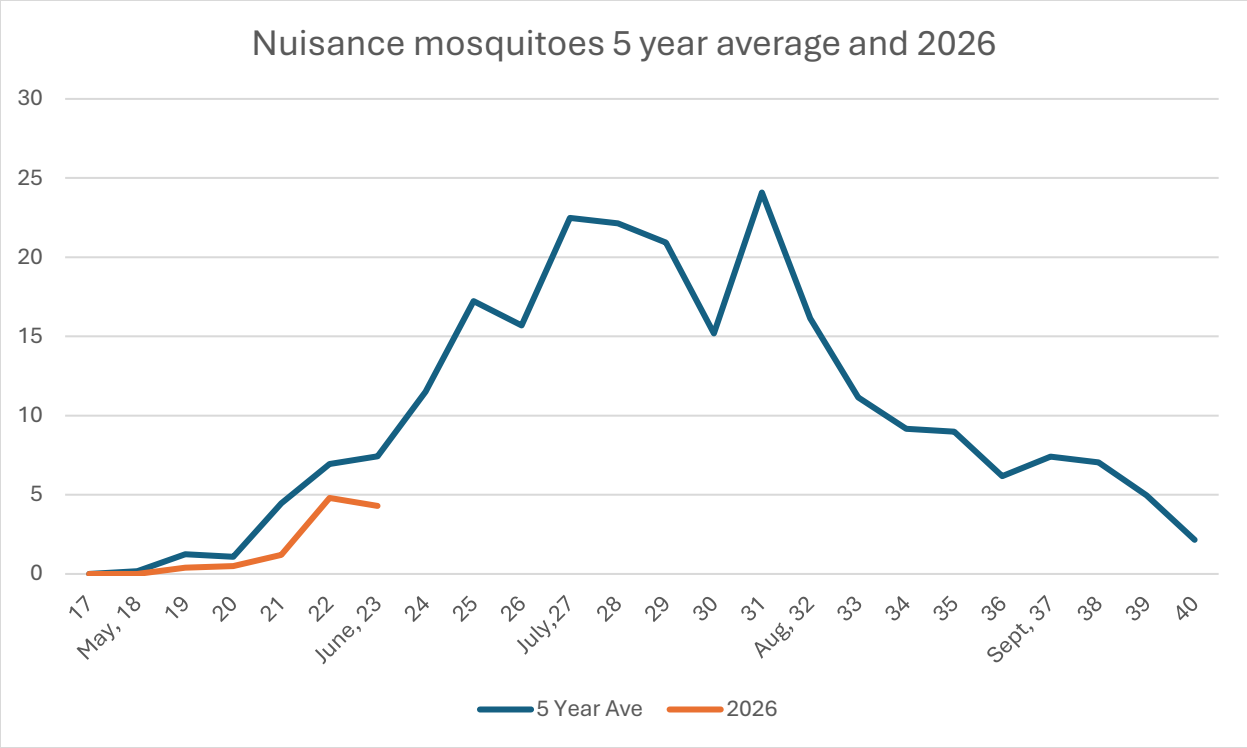
Mosquito Surveillance:

Northwest Mosquito Abatement District operates 36 mosquito traps throughout the 242 square miles we cover. These traps help us track mosquito populations and West Nile virus. Traps run continuously from May 1 until October, and mosquitoes are collected everyday Monday through Friday. All mosquitoes are identified to the species level. We test certain mosquito species for the presence of West Nile virus.

Floodwater/nuisance mosquitoes.

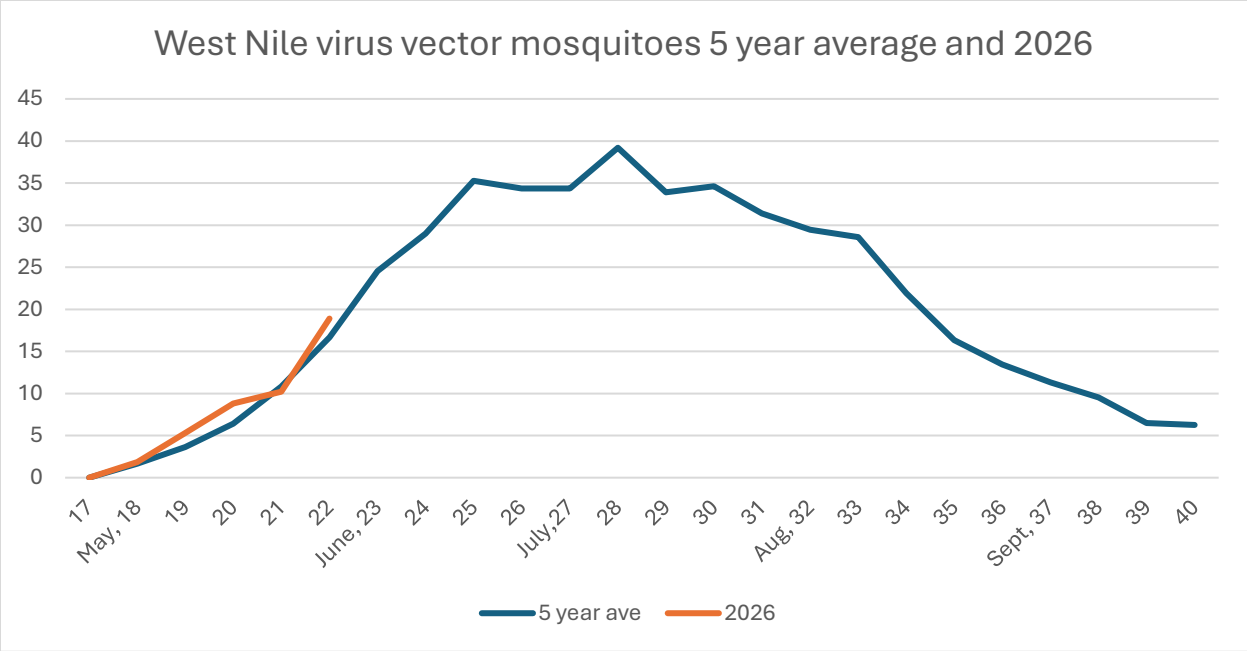
These are the species of mosquitoes which are more likely to take blood meals from humans. These species come out 5-10 days after rainfall. These species populations tend to be higher in the late spring and early summer – historically peaking around the beginning of July. These mosquitoes live for about 2 weeks and tend to prefer shady forest areas.

With the warmer weather we are starting to see emergence of nuisance mosquitoes – especially in wooded areas with lots of shade.



West Nile virus vector mosquitoes.

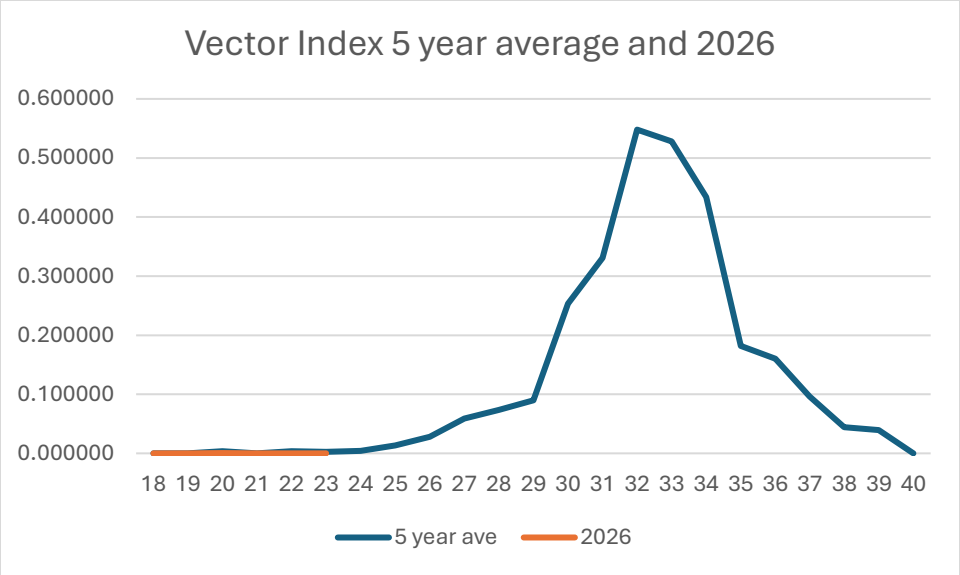
There are two main species of WNv vector mosquitoes, *Culex pipiens* and *Culex restuans*. These species prefer to feed on birds (which are the reservoir hosts for WNv) but will feed on humans opportunistically. In general, we tend to see the population of these mosquitoes increase during drought-like conditions. We are about average for these species of mosquitoes for this time of year.



West Nile virus detection in mosquitoes.

In our lab we test most, if not all, WNv vector mosquitoes for West Nile virus daily. From this data we can calculate the risk of transmission (Vector Index), allow us to monitor the infection rate over time, and better inform our field operations on where to focus our abatement. We tested 38 batches of mosquitoes last week and had 0 WNv positive. The Vector Index for the district was 0.0

VI Range	Risk
0.0 - 0.2	Very low
0.21 - 0.99	Low
1.0 - 1.99	Moderate
> 2.0	High



Mosquito Abatement Activities

The District has about 80,000 storm water catch basins which are the primary habitat for the aquatic stages of West Nile virus vector mosquitoes. We also have approximately 10,000 above ground aquatic sources where other species of mosquitoes may be found.

To date we have treated 41,481 catch basins.

Tick Surveillance

The spring tick season began this year at the end of February. So far this year we have found over 600 adult deer ticks during 9 drags while conducting surveillance along Forest Preserve District trails. These ticks can transmit Lyme disease (historically, 44% of our ticks have tested positive for Lyme disease). This week we have found our first nymphal deer ticks. These are smaller than the adults, thus harder to see when doing a tick check after a person comes in from a walk in the woods (see picture below). Historically about 20% of nymphal deer ticks are infected with Lyme disease. In the past two weeks we have been seeing more dog ticks – including in residential parks abutting forested or tall grass areas. This is a good time to remind people to take precautions, especially when walking in forested areas.

Prevention Tips

- Use tick repellents like **DEET, Permethrin, or Picaridin**.

- Wear long sleeves and pants when outdoors.
- Perform **tick checks** after outdoor activities.
- Avoid wooded and brushy areas with high grass.
- Walk in the center of hiking trails, not along the edge.

Figure 1. Top row: nymph (left) and larva (right). Bottom row: adult female (left) and adult male (right) of the blacklegged or deer tick (Ixodes scapularis).