

# Arbovirus\* Activity, Including West Nile Virus: Final Summary, Michigan 2018

\*Arboviruses are viruses transmitted by mosquitoes or other insects

**159** 

Mosquito pools testing positive for West Nile virus infection

**197** 

Birds testing positive for West Nile virus infection

**105** 

Human cases of West Nile virus or other arboviruses reported

## 2018 Michigan Arbovirus Surveillance

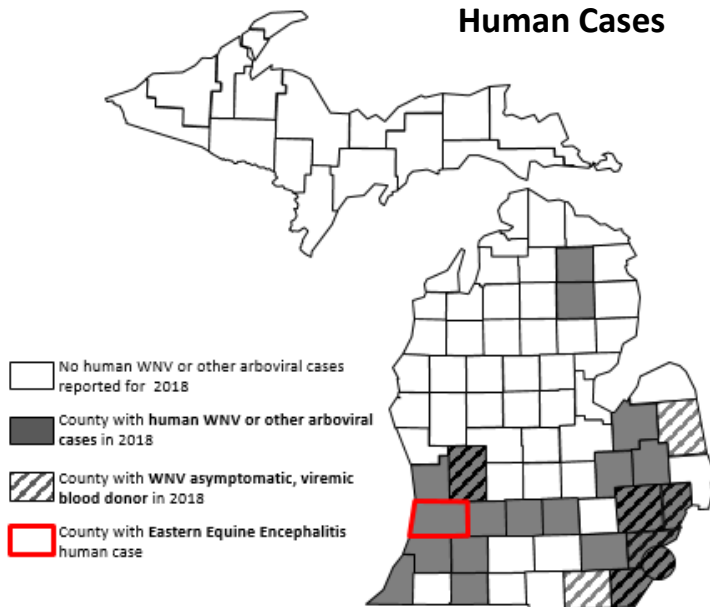
(click links below to see cases by county)

<a href="#">West Nile virus Positive Mosquito Pools</a>	<b>159</b>
Total Number of Mosquito Pools Tested	<b>4,142</b>
Total Number of Mosquitoes Tested	<b>56,952</b>
<a href="#">Human WNV cases reported</a>	<b>104</b>
<a href="#">WNV asymptomatic, viremic blood donor</a>	<b>12</b>
<a href="#">Equine/Other Animal WNV cases reported</a>	<b>3</b>
<a href="#">Avian WNV cases reported</a>	<b>197</b>
<a href="#">Human Eastern Equine Encephalitis cases reported</a>	<b>1</b>
<a href="#">Animal Eastern Equine Encephalitis cases reported</a>	<b>2</b>

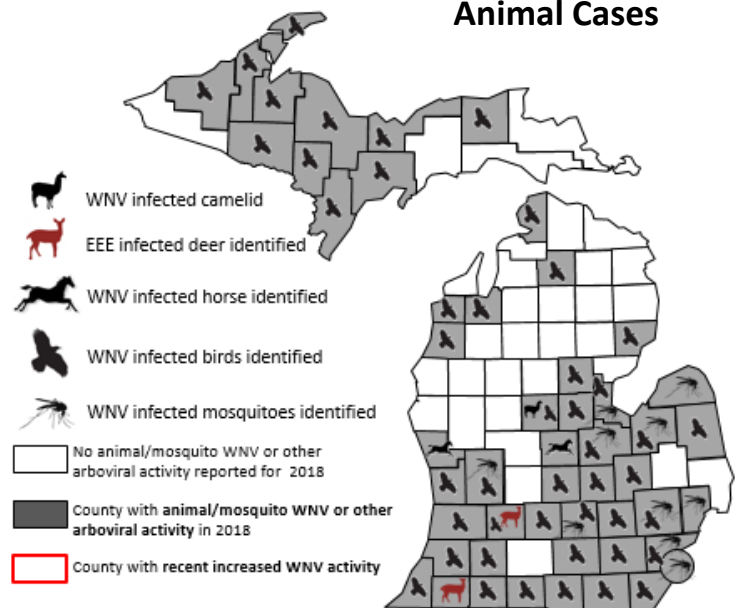
## Highlights

- The Michigan mosquito season has ended. However, travelers to warm weather destinations should continue to protect themselves from mosquito bites.
- In 2018, West Nile virus sickened both Michigan residents (102) and visitors (2), resulting in many hospitalizations and nine fatalities, the most since 2012, when 202 cases and 17 deaths occurred.
- Routine testing of the blood supply identified WNV in 12 Michigan blood donors.
- WNV infected at least two horses (Muskegon, Gratiot), and 1 alpaca (Isabella).
- An Allegan County resident and two white-tailed deer from Cass and Barry Counties were infected with Eastern Equine encephalitis virus (EEE).

## Human Cases



## Animal Cases



For more information

[www.michigan.gov/westnile](http://www.michigan.gov/westnile)



# Preventing Mosquito Bites and Arboviruses: Tips for Michigan Residents

The most effective way to avoid arboviruses is to prevent mosquito bites. Be aware of the West Nile virus and other arbovirus activity in your area and take action to protect yourself and your family.



## *Use Insect Repellent*

Use Environmental Protection Agency (EPA)-registered insect repellents with one of the active ingredients below. When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breastfeeding women.

- DEET
- Picaridin
- IR3535
- Oil of lemon eucalyptus (OLE) or para menthane-diol (PMD)
- 2-undecanone

Find the insect repellent that's right for you by using [EPA's search tool](#)



## *Tips for Babies & Children*

- Always follow instructions when applying insect repellent to children.
- Do not use insect repellent on babies younger than 2 months old.
- Do not apply insect repellent onto a child's hands, eyes, mouth, and cut or irritated skin.
  - Adults: Spray insect repellent onto your hands and then apply to a child's face.
- Do not use products containing oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) on children under 3 years old.



## *Take steps to control mosquitoes inside and outside your home*

- Use screens on windows and doors. Repair holes in screens to keep mosquitoes outside.
- Once a week, eliminate potential breeding areas for mosquitoes. Check inside and outside your home. Mosquitoes lay eggs on or near water:
  - Discard old tires, tin cans, ceramic pots or other containers that can hold water
  - Repair failed septic systems
  - Drill holes in the bottom of recycling containers left outdoors
  - Keep grass cut short and shrubbery trimmed
  - Clean clogged roof gutters, particularly if leaves tend to plug up the drains
  - Frequently replace the water in pet bowls
  - Flush ornamental fountains and birdbaths periodically; aerate ornamental pools, or stock them with predatory fish.

For Up-to-Date Information Visit Michigan's Emerging Diseases Website

[www.michigan.gov/westnile](http://www.michigan.gov/westnile)

or the Centers for Disease Control and Prevention Website

[www.cdc.gov/westnile](http://www.cdc.gov/westnile)