Pioneer Valley MCD Weekly Report

EPI Week 38 **Week Ending: September 20, 2025**

Surveillance Summary

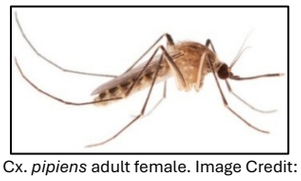
EPI Week 38 Target Species Surveillance Summary					Cumulative Totals: EPI Weeks 24-38			
Species	# Collected	Pools	WNV+	EEEV+	Cumulative Specimens	Cumulative Pools	Cumulative WNV+	Cumulative EEEV+
Cx. *pipiens/restuans*	177	11	1	0	11353	330	51	0
Cq. *perturbans*	0	0	0	0	3758	128	0	0
Cs. *melanura*	1	1	0	0	44	20	0	0
Oc. *canadensis*	0	0	0	0	954	34	0	0
Oc. *japonicus*	96	8	0	0	1791	97	0	0
Ps. *ferox*	0	0	0	0	68	0	0	0
An. *quadrimaculatus*	2	0	0	0	234	5	0	0
Ae. *vexans*	0	0	0	0	170	11	0	0
Ae. *albopictus*	0	0	0	0	25	1	0	0
Cx. *salinarius*	0	0	0	0	527	23	2	0
An. *punctipennis*	8	0	0	0	742	3	0	0
Cx. *erraticus*	0	0	0	0	1640	5	0	0
Ur. *sapphirina*	1	0	0	0	34	1	0	0
Totals	285	20	1	0	21340	678	53	0

Positive Mosquito Samples in the Pioneer Valley Region

- There was one positive WNV sample confirmed during EPI week 38: A pool of 8 Culex *pipiens/restuans* from Erving.
- See statewide cumulative results here and updated risk maps here.

Most Abundant Species in Pioneer Valley

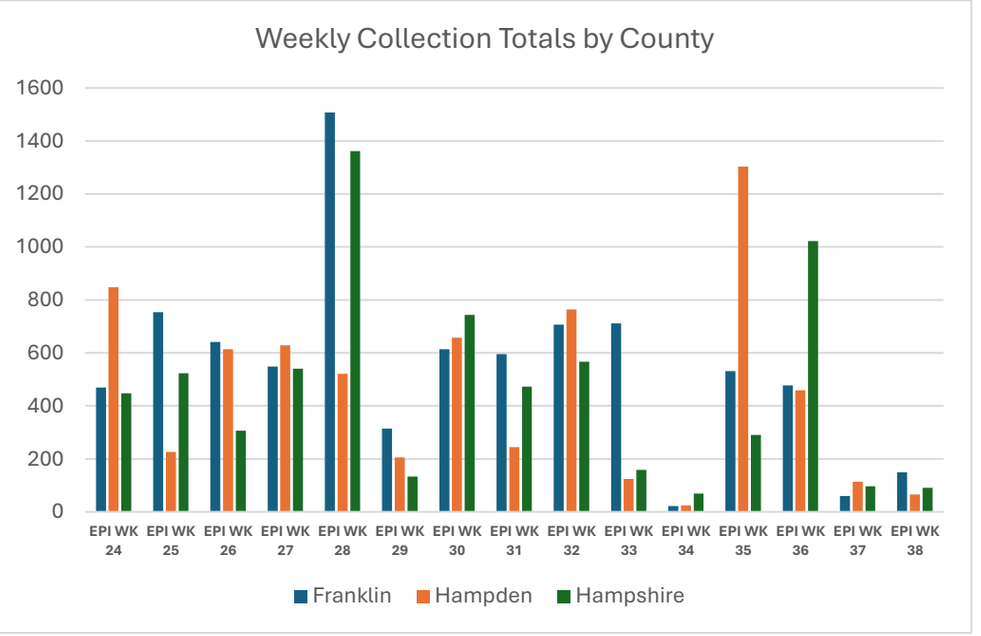
- Among the species of most concern, Cx. *pipiens/restuans* continue to be the most prevalent, with a total of **177** specimens collected during EPI week 38. Cx. *pipiens/restuans*, the primary vector for West Nile virus (WNV), breeds in artificial containers such as catch basins, neglected swimming pools, tarps, birdbaths, buckets, discarded tires, and poorly maintained garden ponds. Eliminating standing water around the home is a key step in reducing populations of *Cx. pipiens/restuans* and other mosquito vectors.



Cx. *pipiens* adult female. Image Credit: Lawrence E. Reeves, University of Florida

EPI WK 38 Summary by County

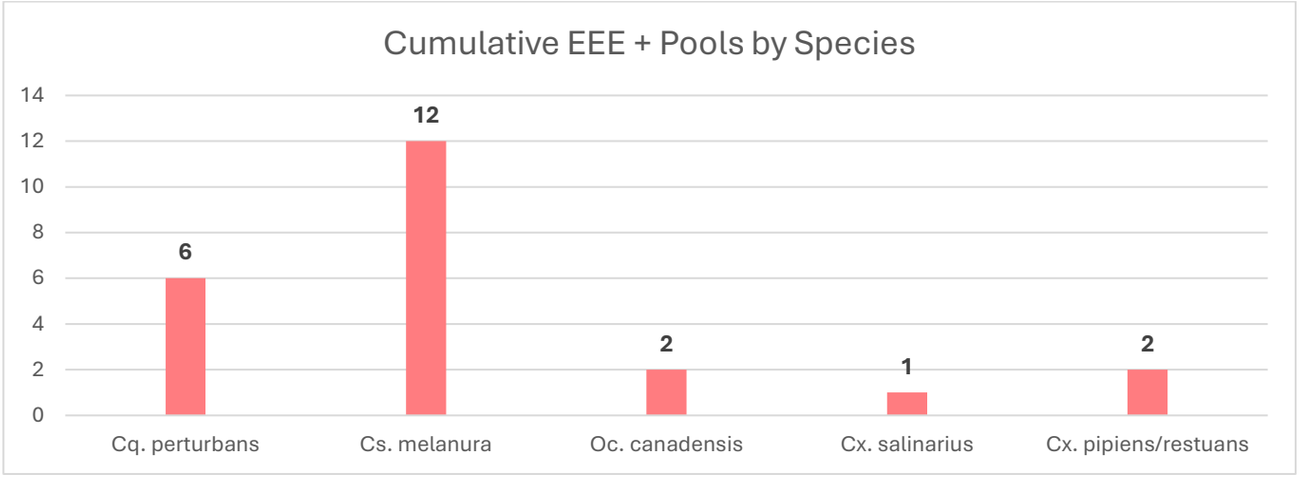
- **Franklin County**
  - Pools Tested: 9
  - Positive Samples: 1
  - Most Abundant Species: Cx. *pipiens/restuans* (74)
  - Total Mosquitoes Collected: 149
- **Hampden County**
  - Pools Tested: 5
  - Positive Samples: 0
  - Most Abundant Species: Cx. *pipiens/restuans* (32)
  - Total Mosquitoes Collected: 66
- **Hampshire County**
  - Pools Tested: 6
  - Positive Samples: 0
  - Most Abundant Species: Cx. *pipiens/restuans* (70)
  - Total Mosquitoes Collected: 91
- Total Mosquitoes Collected in All Counties: **306** (Total Includes Non-Target Species)
- Total Pools Submitted for Testing in All Counties: **20**

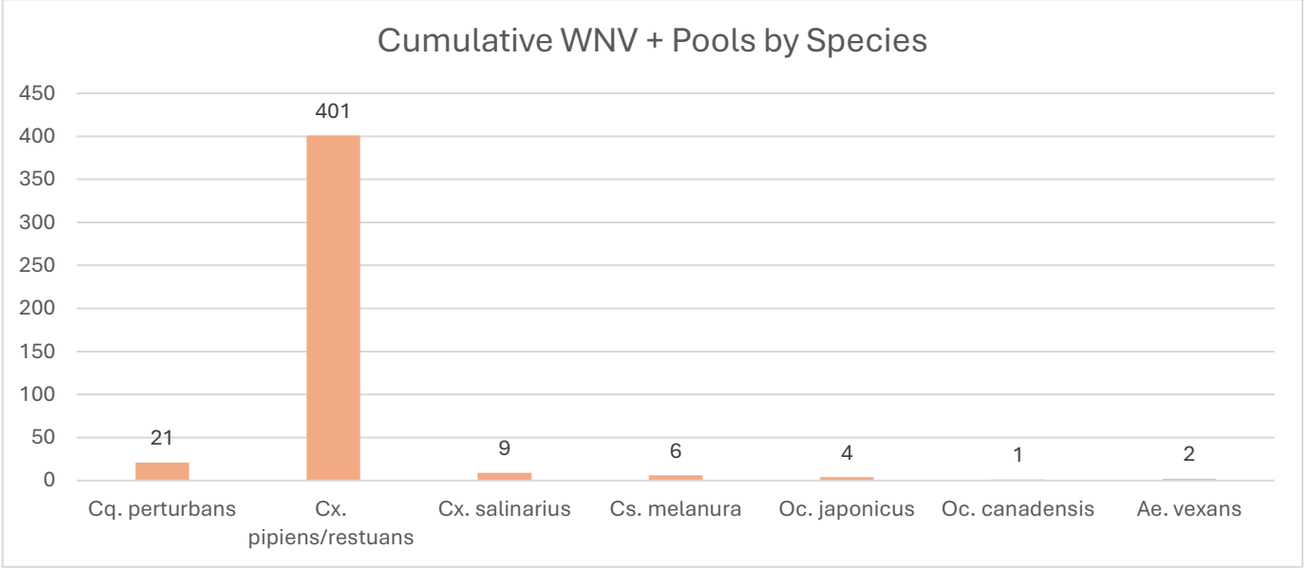


Statewide Cumulative Arbovirus Positives as of 9/26/25

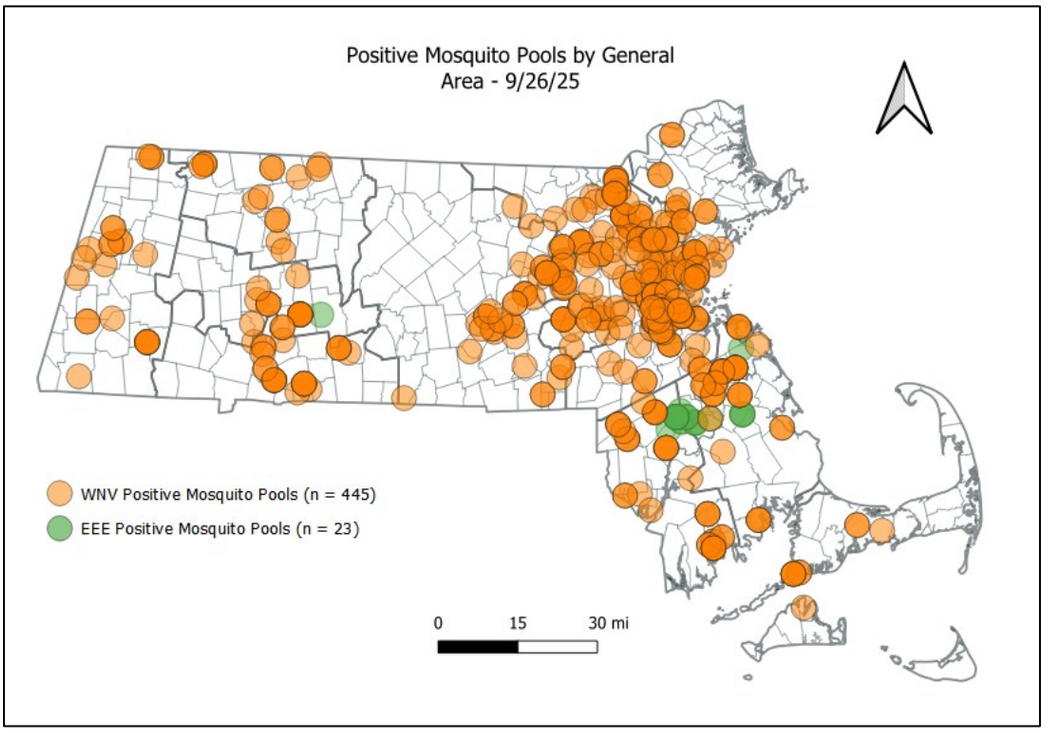
Virus	Positive Mosquito Samples	Animal Cases	Human Cases
EEE	**23**	**0**	**0**
WNV	**445**	**1**	**8**

Onset	County	Age Range	Sex	Illness
8/11/25	Hampden	40-49	Male	Meningitis
8/15/25	Middlesex	70-79	Female	Encephalitis
8/21/25	Worcester	60-69	Male	Non-neuroinvasive (WNV fever)
8/22/25	Essex	60-69	Female	Meningoencephalitis
8/22/25	Middlesex	80-89	Male	Meningoencephalitis
8/30/25	Worcester	60-69	Male	Meningoencephalitis
9/9/25	Middlesex	60-69	Female	Meningitis
9/12/25	Suffolk	50-59	Male	Other Neuroinvasive

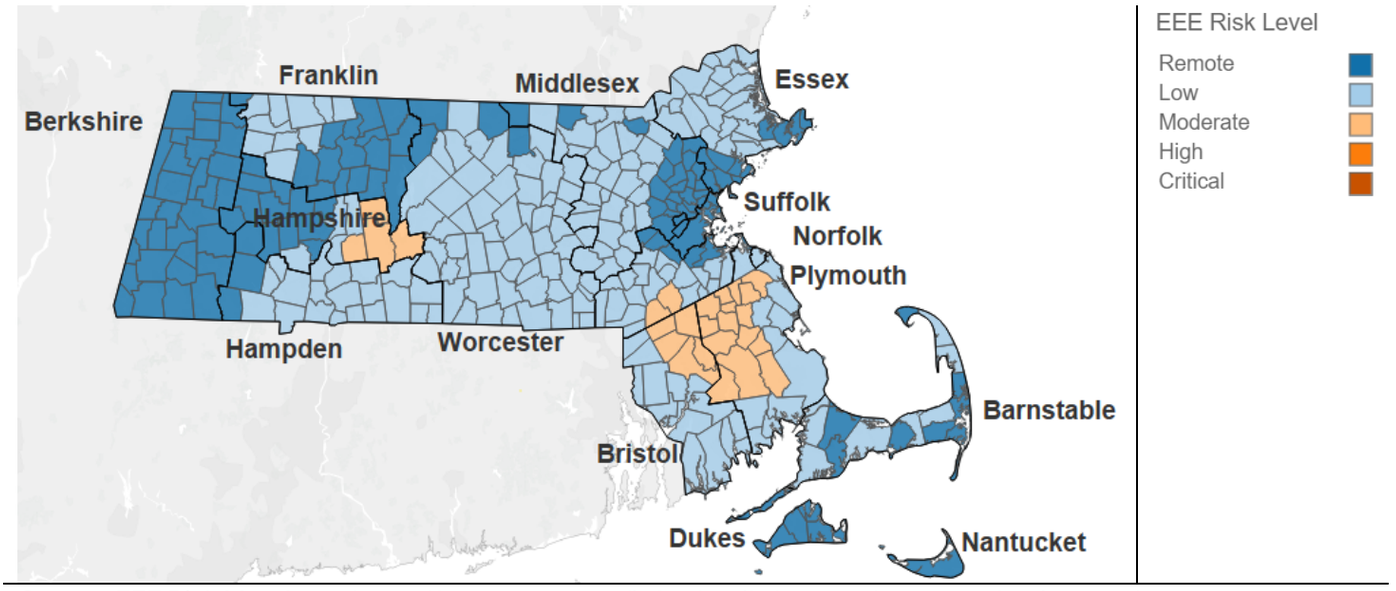




See description of targeted mosquito species **here**.

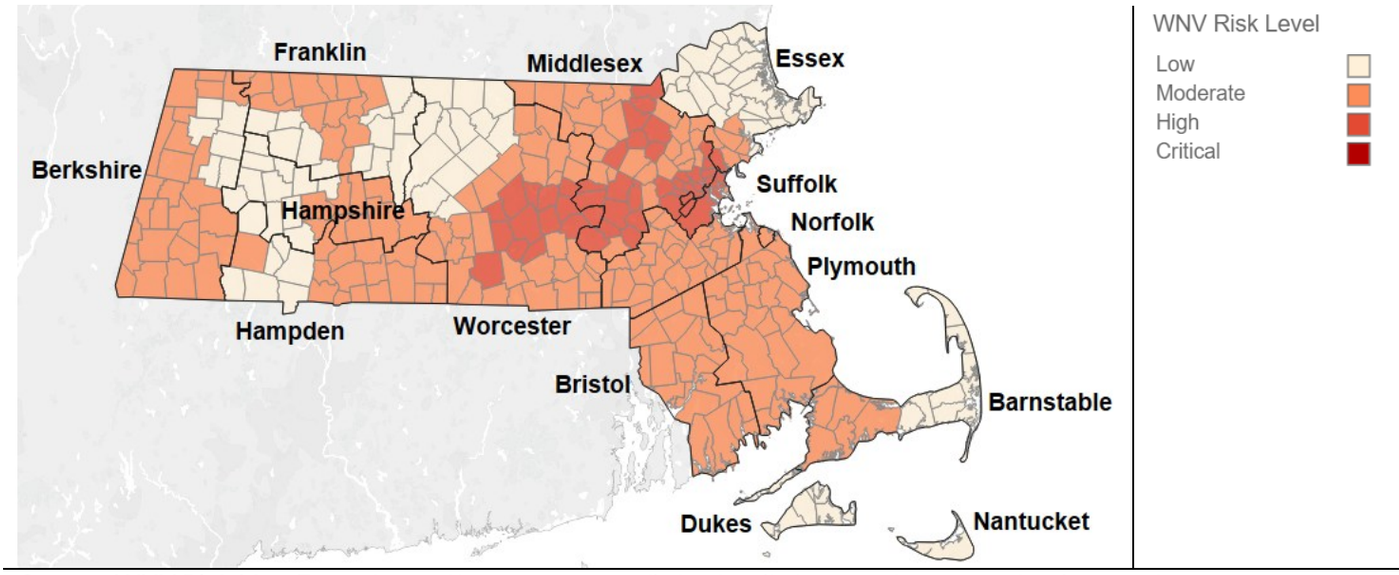


EEE Risk Map as of 9/26/25



Current EEE Risk Map from: https://www.mass.gov/info-details/massachusetts-arbovirus-update

WNV Risk Map as of 9/26/25



Current WNV Risk Map From: https://www.mass.gov/info-details/massachusetts-arbovirus-update

Bite Prevention – Mosquitoes and Ticks

Mosquitoes and ticks can transmit serious diseases, but taking protective measures can go a long way in preventing bites from these common vectors.

Personal Protection Tips

- **Use insect repellent:** Use EPA approved insect repellent with one of the following ingredients: DEET, picaridin, or oil of lemon eucalyptus to keep bugs off.
- **Be mindful of timing and environment:** Mosquitoes are busiest at dawn and dusk, while ticks hide in brushy areas all day. During the colder months, ticks will overwinter in mostly leaf litter and will seek out a blood meal on a warm winter day.
- **Wear proper clothing:** Long sleeves, pants, and shoes help prevent mosquito bites. Although it's not much of a fashion statement, tucking your pants into your socks prevents ticks from migrating up your leg and biting you.
- **Treat your clothes:** Spray gear and clothing with permethrin for extra protection against ticks. Note, permethrin is a pesticide and should be used with caution. Read all product labels before use.
- **Tick check:** Look over your skin, clothes, and pets carefully after spending time outside.
- **Dry your clothes on high heat:** Ticks can survive a wash cycle, but 10 minutes in a hot dryer will kill them.
- **If possible, take a shower within two hours:** It helps wash off unattached ticks before they can latch on. This is also a good opportunity to look over your skin again.

Around the Home

- **Prevent artificial habitat:** Mosquitoes will seek out water-filled containers to lay their eggs in, so empty buckets, birdbaths, kiddy pools, tarps, etc. Clear gutters of debris regularly and dispose of old tires to prevent mosquito breeding.
- **Fix doors and screens:** Keep mosquitoes out by inspecting and repairing window screens.
- **Make a tick-safe yard:** Maintain short grass, remove leaf litter, and place a barrier of gravel between wooded areas and the edges of your lawn.

PE Poster Printouts and Helpful Links

- Mosquito Bite Prevention Poster
- Arbovirus Transmission Cycles
- Reducing Mosquito Breeding Sites
- CDC Dengue Fever Information
- DPH Mosquito PE Materials: https://www.mass.gov/lists/mosquito-borne-disease-educational-materials
- DPH Tick PE Materials: https://www.mass.gov/info-details/tick-borne-educational-materials

Targeted Mosquito Species

Species Name	Description	Habitat	Months Active
Aedes *albopictus*	An invasive species that is an aggressive and relentless day biter. Ae. *albopictus* prefer to feed on humans and can transmit chikungunya, dengue, and Zika.	Discarded tires and other containers.	June-October Peak: July
Aedes *vexans*	An aggressive biter that falls within the "flood water" species. Ae. *vexans* is a bridge vector for EEE and will feed on both birds and mammals.	Temporary freshwater pools such as flood meadows, retention ponds, and vernal pools.	May-October Peak: Varies and is dependent on precipitation.
Culiseta *melanura*	Cs. *melanura* mosquitoes are a primary vector for EEE. Cs. *melanura* feed mainly on avian species and are responsible for amplifying the virus to the point that it spills over into bridge vectors.	Tree root cavities or "crypts" covered by peat moss in red maple and cedar swamps.	May-December Peak: July-August and mid-September
Culex *pipiens* and *restuans*	These two mosquito species are abundant in Massachusetts and can amplify WNV in the bird population and infect humans. While Cx. *pipiens* is more implicated in WNV transmission, both Cx. *pipiens* and *restuans* are grouped together because differentiating between the two species with 100% reliability if very difficult.	Artificial containers such as "green" swimming pools, catch basins, discarded tires, buckets, etc.	May-October Peak: July-August
Coquillettidia *perturbans*	Cq. *perturbans* is one of the most abundant mosquitoes in Massachusetts and are considered a competent bridge vector for both EEE and WNV. Cq. *pertubans* will feed on both birds (reservoir for EEE) and mammals.	Permanent bodies of water with emergent vegetation such at cattails.	May-September Peak: July
Ochlerotatus *canadensis*	Oc. *canadensis,* is a bridge vector that can transmit both EEE and WNV to humans.	Woodland/vernal pools.	May-October Peak: June
Ochlerotatus *japonicus*	An invasive species that is a potential bridge vector for WNV and EEE.	Discarded tires and other containers	May-October Peak:
Culex *salinarius*	*Cx. salinarius* are considered bridge vectors for both EEE and WNV, readily feeding on mammals.	Brackish and freshwater swamps.	May-November Peak: August
Other species	There are many other species that PVMCD staff will submit to the Arbovirus Surveillance Laboratory at DPH for testing. These species are considered potential vectors in transmitting arboviruses.		