

# Pioneer Valley MCD Weekly Report

EPI Week 27

Week Ending: July 6, 2024

Note: The trapping schedule was reduced during EPI week 27 due to the holiday.

## EPI Week 27 Surveillance Summary

EPI Week 27 Target Species Surveillance Summary					Cumulative Totals: EPI Weeks 24-27			
Species	# Collected	Pools	WNV+	EEEEV+	Cumulative Specimens	Cumulative Pools	Cumulative WNV+	Cumulative EEEV+
<i>Cx. pipiens/restuans</i>	31	3	0	0	905	32	0	0
<i>Cs. melanura</i>	42	3	0	0	108	10	0	0
<i>Cq. perturbans</i>	2969	21	0	0	11352	72	0	0
<i>Oc. canadensis</i>	120	7	0	0	498	17	0	0
<i>Oc. japonicus</i>	43	1	0	0	297	11	0	0
<i>Cx. salinarius</i>	18	1	0	0	423	5	0	0
<i>Ae. albopictus</i>	0	0	0	0	8	1	0	0
<i>Ps. ferox</i>	72	2	0	0	144	2	0	0

### Positive Samples

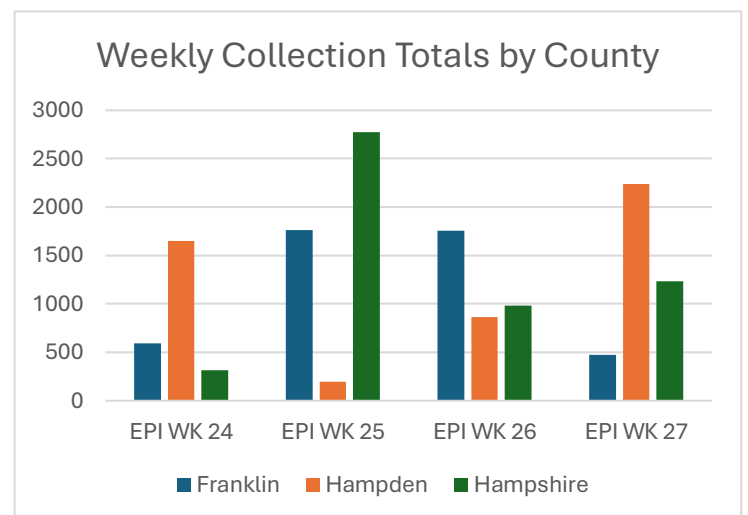
- There were no positive samples reported during EPI week 27.

### Most Abundant Species

- Cq. perturbans* were the most abundant vector species collected during EPI week 27, totaling 2969 specimens. *Perturbans* collections are up slightly by 2% from the previous week. This number is expected to remain stable or increase during EPI weeks 28-29. *Cq. perturbans* are a bridge vector for EEE and WNV and can be found in permanent swamps with emergent vegetation (e.g. cattails and hummocks/tussocks). *Cq. perturbans* are aggressive human biters that can fly up to 5 miles for a blood meal and are primarily active during the night.

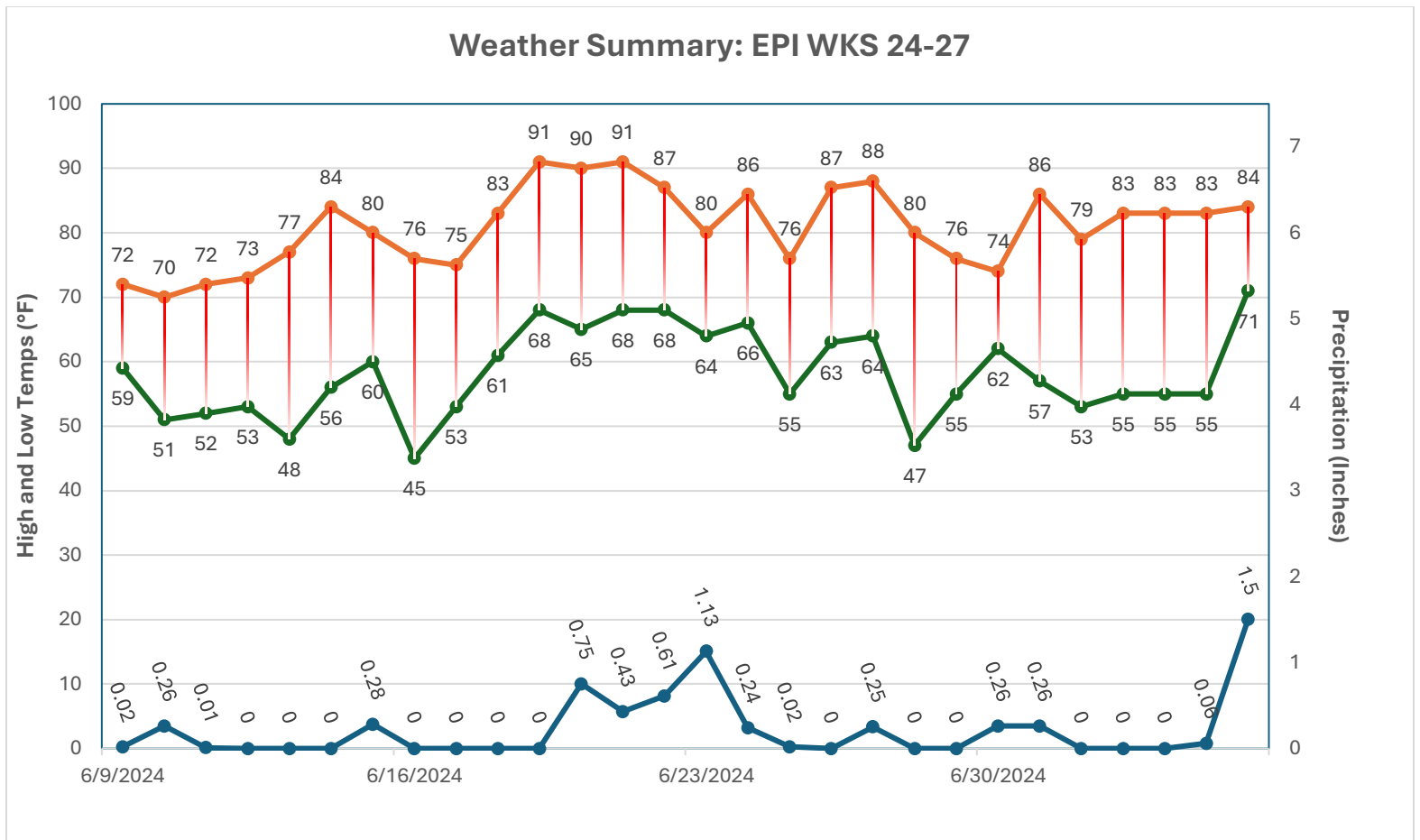
### EPI WK 27 Summary by County

- Franklin County
  - EPI WK 27 Pools Tested: 16
  - Positive Samples: 0
  - Most Abundant Species: *Cq. perturbans* (327)
  - Total Mosquitoes Collected: 471
- Hampden County
  - EPI WK 27 Pools Tested: 13
  - Positive Samples: 0
  - Most Abundant Species: *Cq. perturbans* (2060)
  - Total Mosquitoes Collected: 2238
- Hampshire County
  - EPI WK 27 Pools Tested: 13
  - Positive Samples: 0
  - Most Abundant Species: *Cq. perturbans* (581)
  - Total Mosquitoes Collected: 1234



- Total Mosquitoes Collected (All Counties): 3943
- Total Pools Submitted for Testing (All Counties): 42

## Weather Data



## Weather Summary

- Weather conditions remained favorable for mosquitoes during EPI weeks 24-27. For total mosquitoes collected, EPI week 27 produced roughly the same number of mosquitoes as the previous week, with 3943 mosquitoes collected. If weather conditions continue to remain favorable, it is expected that mosquito populations will continue to remain stable or increase.

## Weekly Changes

Station	Name	EPI Week	PRCP Total (in.)	TMAX AVG (°F)	TMIN AVG (°F)
USC00190120	AMHERST, MA US	24	0.57	75.43	54.14
USC00190120	AMHERST, MA US	25	1.79 (+214%)	84.71 (+12%)	61.14 (+13%)
USC00190120	AMHERST, MA US	26	1.64 (-8%)	81.86 (-3%)	59.14 (-3%)
USC00190120	AMHERST, MA US	27	2.08 (+27%)	81.71 (no change)	58.29 (+1%)

## EPI Week 27 Arbovirus Detections

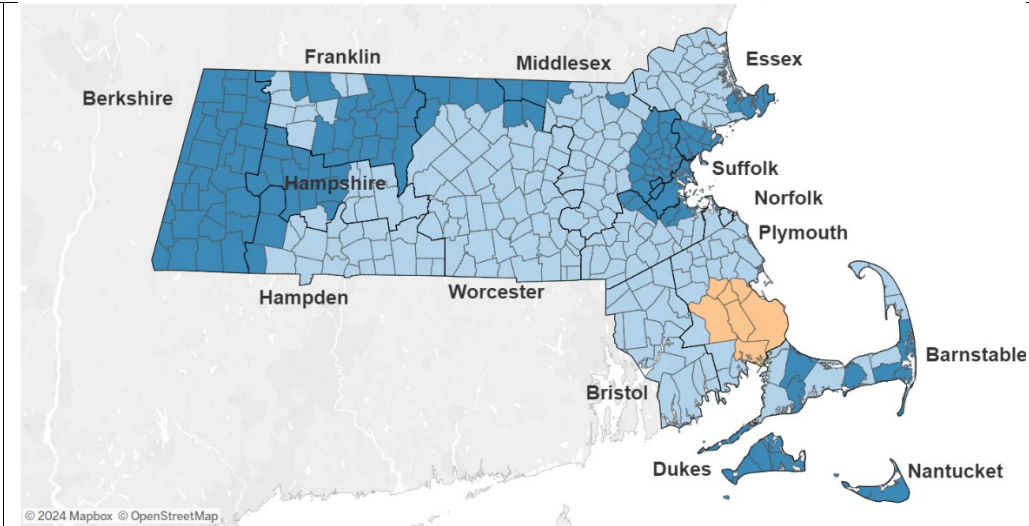
Town	County	Virus Detected	Mosquito Species
Kingston	Plymouth	EEEv	<i>Culex pipiens/restuans</i>
Halifax	Plymouth	EEEv	<i>Culiseta melanura</i>
Rockland	Plymouth	WNV	<i>Culex pipiens/restuans</i>
Cambridge	Middlesex	WNV	<i>Culex pipiens/restuans</i>
Edgartown	Dukes	WNV	<i>Culex pipiens/restuans</i>
Hanson	Plymouth	WNV	<i>Culiseta melanura</i>

## Arbovirus Summary for 2024

Virus	Positive Mosquito Samples	Animal Cases	Human Cases
EEEv	8	0	0
WNV	6	0	0

## EEE Impacted Areas

Recent detections of EEEv in mosquitos in has resulted in a risk level change to “Moderate” in the following communities: Carver, Halifax, Kingston, Middleborough, Plymouth, Plympton, and Wareham.



EEE Risk Level

- Remote
- Low
- Moderate
- High
- Critical

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

## WNV Impacted Areas

There were no changes to the WNV risk map during EPI week 27.



WNV Risk Level

- Low
- Moderate
- High
- Critical

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

## Dengue Fever in Massachusetts (Non-local Transmissions)

- There were 9 additional dengue cases reported by the CDC in Massachusetts during EPI Week 27. There have been no local transmissions of dengue in Massachusetts.
- Dengue transmission typically occurs in the following regions: the Caribbean, Central America, South America, Southeast Asia, and the Pacific Islands.
- Dengue is spread through a human-to-mosquito-to-human cycle.
- Onset is up to two weeks with illness lasting 2-7 days. Transmission to mosquitoes is possible for up to 12 days.
- Symptoms include:
  - Fever
  - Nausea and vomiting
  - Rash
  - Aches and pains
  - Joint and muscle pain
  - Pressure and pain around the eye sockets
  - Headache

## PE Poster Printouts and Helpful Links

- [Mosquito Bite Prevention Poster](#)
- [EEE Transmission Cycle Poster](#)
- [WNV Transmission Cycle Poster](#)
- [Dengue Virus Transmission Cycle Poster](#)
- [CDC Dengue Fever Information](#)
- DPH Mosquito PE Materials: <https://www.mass.gov/lists/mosquito-borne-disease-educational-materials>
- CDC Press Kit: <https://www.cdc.gov/mosquitoes/communication-resources/press-kit-mosquitoes.html>
- DPH Tick PE Materials: <https://www.mass.gov/info-details/tick-borne-educational-materials>

## Recommended Messaging

- Use EPA approved bug-repellent
- Cover skin/wear long sleeves and pants
- Avoid outdoor activities during peak mosquito times (between dusk and dawn)
- Repair window screens
- Containers in yards with standing water should be emptied to reduce mosquito breeding

**DPH Arbovirus Toolkit:** <https://www.mass.gov/lists/arbovirus-information-for-local-boards-of-health#toolkit->

**DPH Arbovirus Response Plan:** <https://www.mass.gov/doc/2024-arbovirus-surveillance-and-response-plan/download>

Questions/Comments: Please email John Briggs, the District Director, at [john.c.briggs@mass.gov](mailto:john.c.briggs@mass.gov).



# PIONEER VALLEY MOSQUITO CONTROL DISTRICT

## FIGHT THE BITE

AND HELP PREVENT THE SPREAD OF MOSQUITO BORNE DISEASES



### USE REPELLENT

Be sure to apply EPA approved insect repellents containing plant based eucalyptus or DEET when outdoors.



### AVOID DUSK AND DAWN

Most mosquito species are very active at dusk and dawn. Avoid engaging in outdoor activities during these times whenever possible.



### WEAR PROPER CLOTHING

Wearing long-sleeves and pants will significantly help reduce mosquito bites.



### PREVENT ARTIFICIAL HABITAT

Buckets, plant pots, kiddie pools, tire swings, and anything that holds water should be emptied to prevent mosquito habitat.



### FIX DOORS AND WINDOWS

Screens with holes should be repaired and be sure that all doors and windows are working properly to keep the mosquitoes out.



### FIRST AID FOR BITES

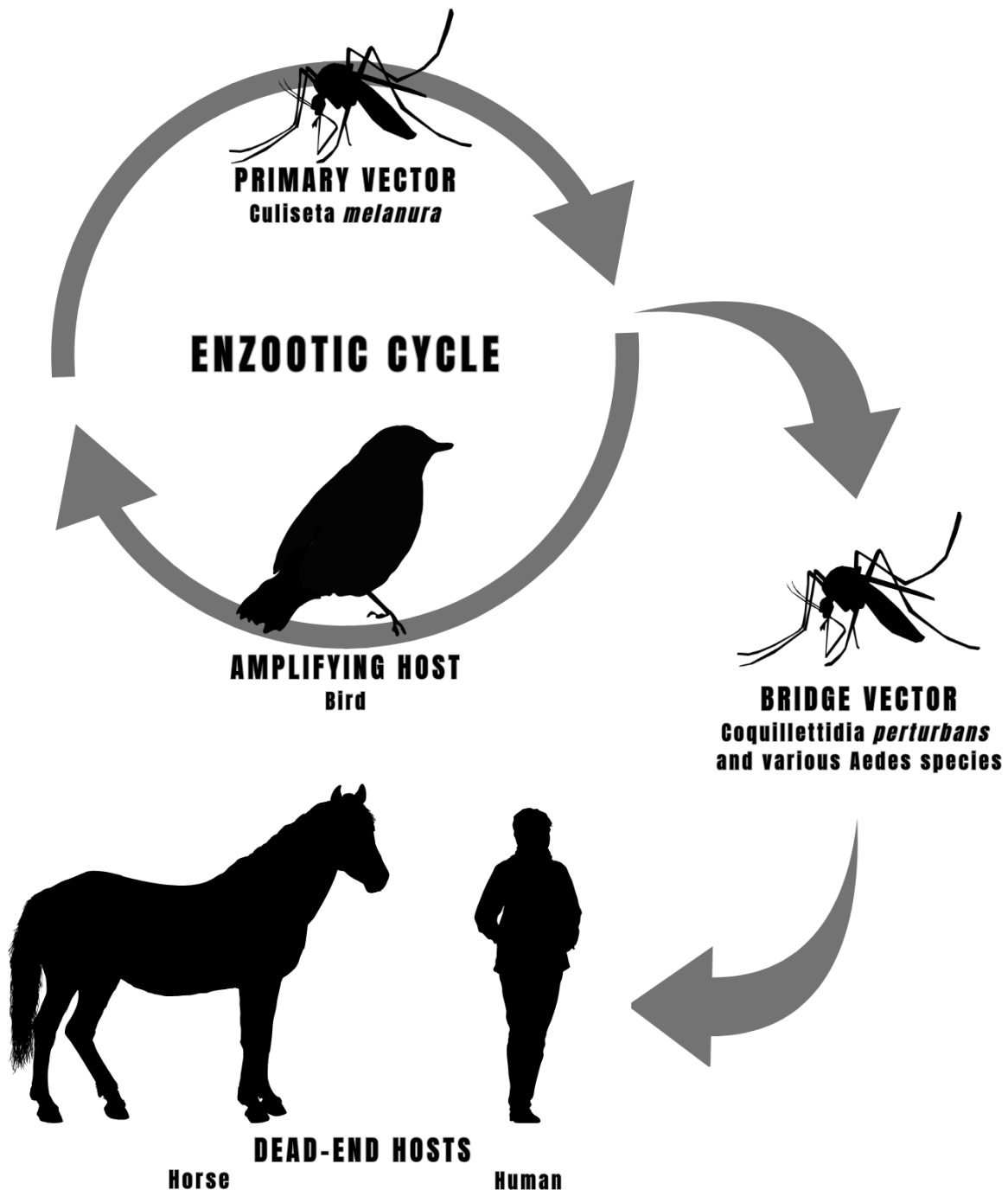
Wash bite with soap and water and apply anti-itch cream. If necessary, apply a cold cloth to reduce swelling.

**Email:** [john.c.briggs@mass.gov](mailto:john.c.briggs@mass.gov)  
**Web:** [mass.gov/info-details/pioneer-valley-mosquito-control-district-pvmcd](http://mass.gov/info-details/pioneer-valley-mosquito-control-district-pvmcd)



# PIONEER VALLEY MOSQUITO CONTROL DISTRICT

## EASTERN EQUINE ENCEPHALITIS VIRUS TRANSMISSION CYCLE



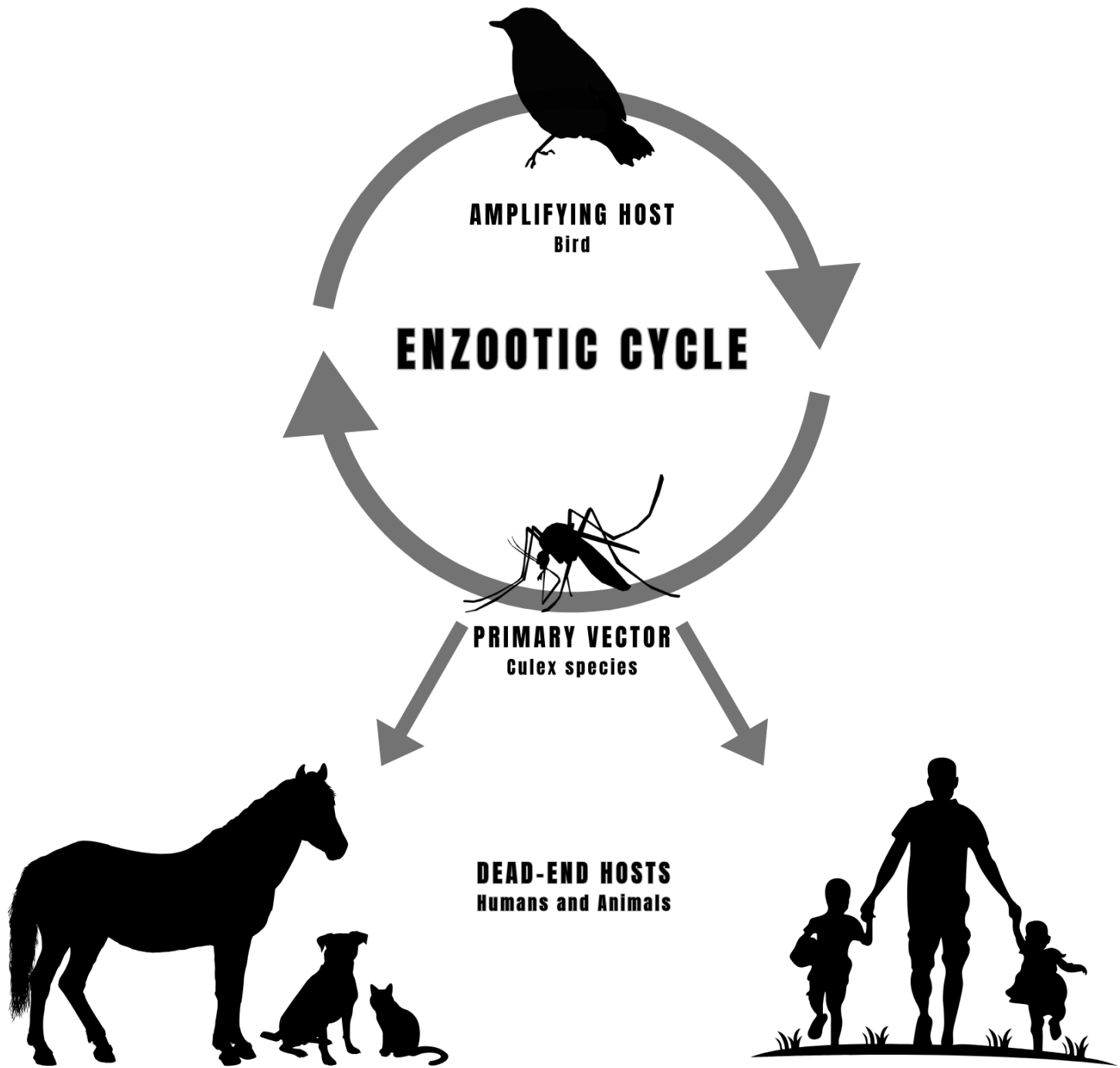
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# PIONEER VALLEY MOSQUITO CONTROL DISTRICT

## WEST NILE VIRUS TRANSMISSION CYCLE



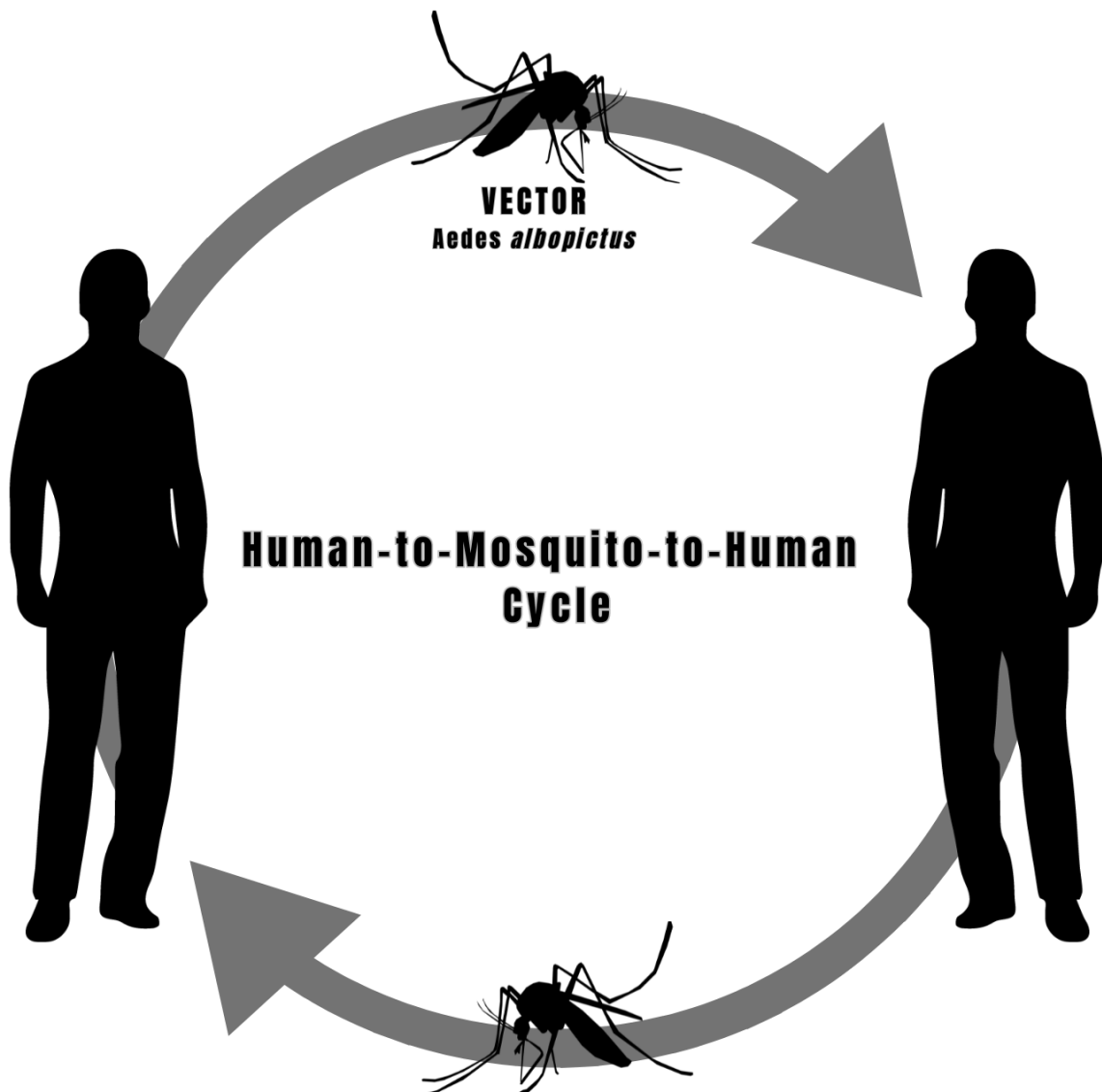
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# PIONEER VALLEY MOSQUITO CONTROL DISTRICT

## DENGUE VIRUS TRANSMISSION CYCLE



**Email:** [john.c.briggs@mass.gov](mailto:john.c.briggs@mass.gov)

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