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# MOSQUITO & TICK MONITORING PROGRAM



**CHRISSY EDWARDS-MCCUNE**

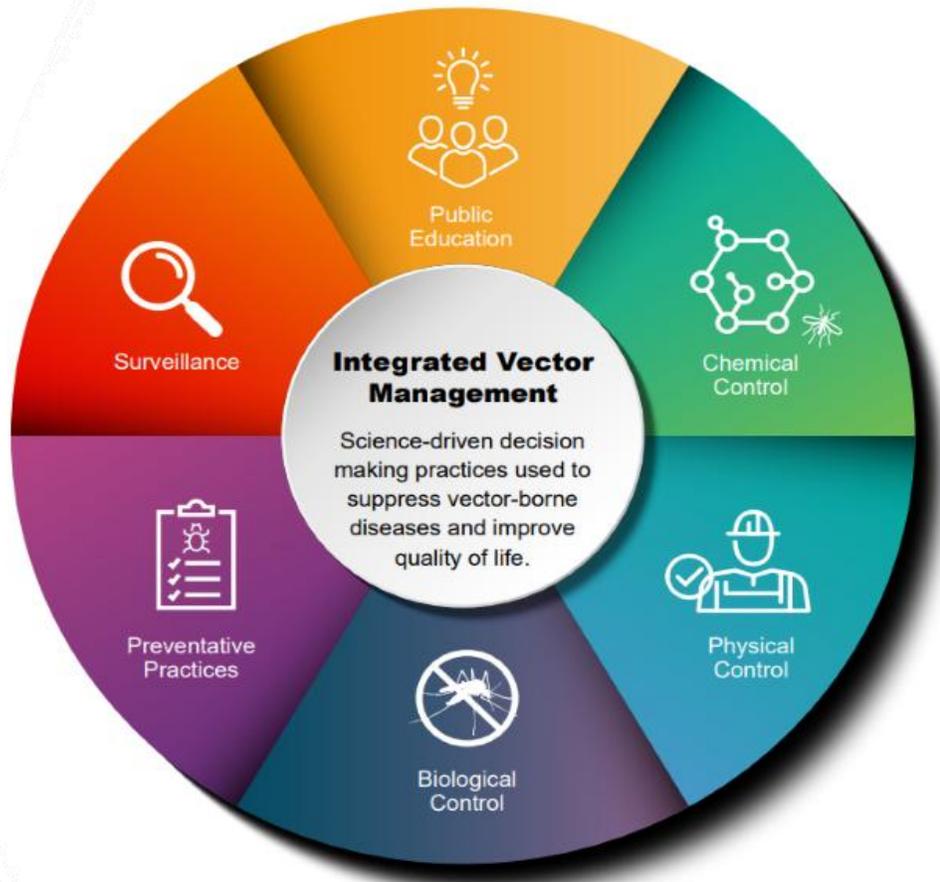
**MOSQUITO  
MONITORING/CONSERVATION  
TECHNICIAN**

**EMILY VOGT**

**SEASONAL MOSQUITO  
TECHNICIAN/AMERICORPS**

**February 20th, 2026**

# ABOUT THE PROGRAM



- **Conduct Laval & Adult Mosquito Monitoring and Control**
- **Habitat Reduction**
- **Respond to Complaints**
- **Educate the Public**

# HOW WE GATHER DATA



# WEST NILE VIRUS (WNV)

## WNV Fever- (1 in 5)

Most people with this type of West Nile virus disease recover completely, but fatigue and weakness can last for weeks or months.

- **Body aches**
- Joint pains
- **Vomiting, diarrhea**
- Rash



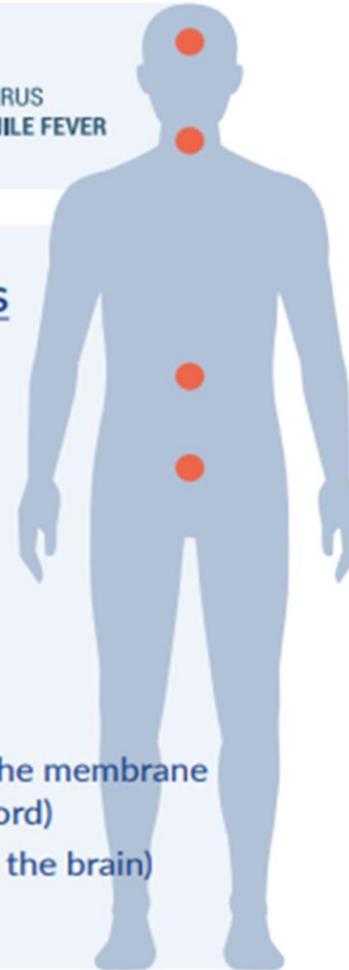
ONLY 20% OF THOSE  
INFECTED WITH THE VIRUS  
WILL DEVELOP WEST NILE FEVER

### MOST COMMON SYMPTOMS

- Fever
- Vomiting
- Diarrhea
- Rash
- Fatigue
- Body Pain

### SEVERE FORM

- Meningitis (inflammation of the membrane around the brain and spinal cord)
- Encephalitis (inflammation of the brain)



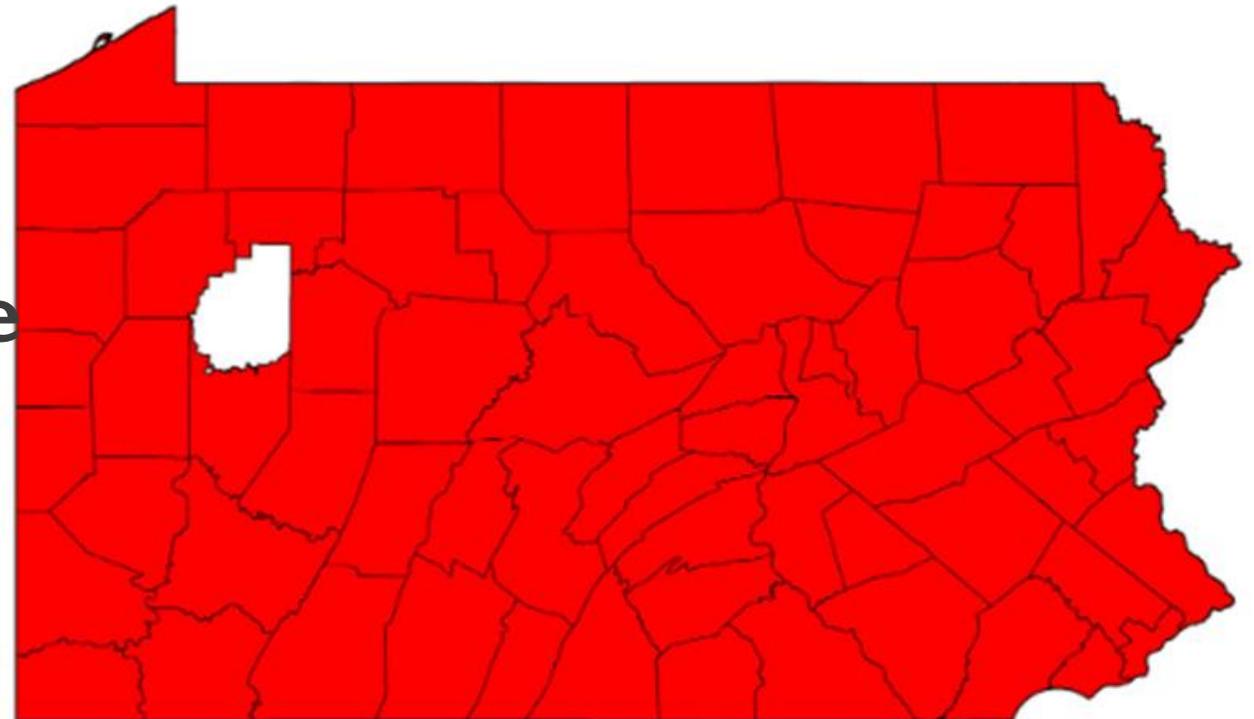
## WNV Neuroinvasive- (1-150)

- Headache
- **High Fever**
- Neck Stiffness
- **Disorientation, coma, tremors, seizures**
- Paralysis
- **Death**

# 2025 SAMPLING SUMMARY

- **11,792 mosquitoes trapped**
- **11 complaints**
- **79 human cases statewide**
- **0 human cases for Westmoreland**
- **66/67 PA counties mosquito positive**

West Nile Virus Activity Map 2025



**Legend**

- West Nile Virus Detected
- West Nile Virus Not Detected

Updated 10/24/25. Testing complete for 2025.

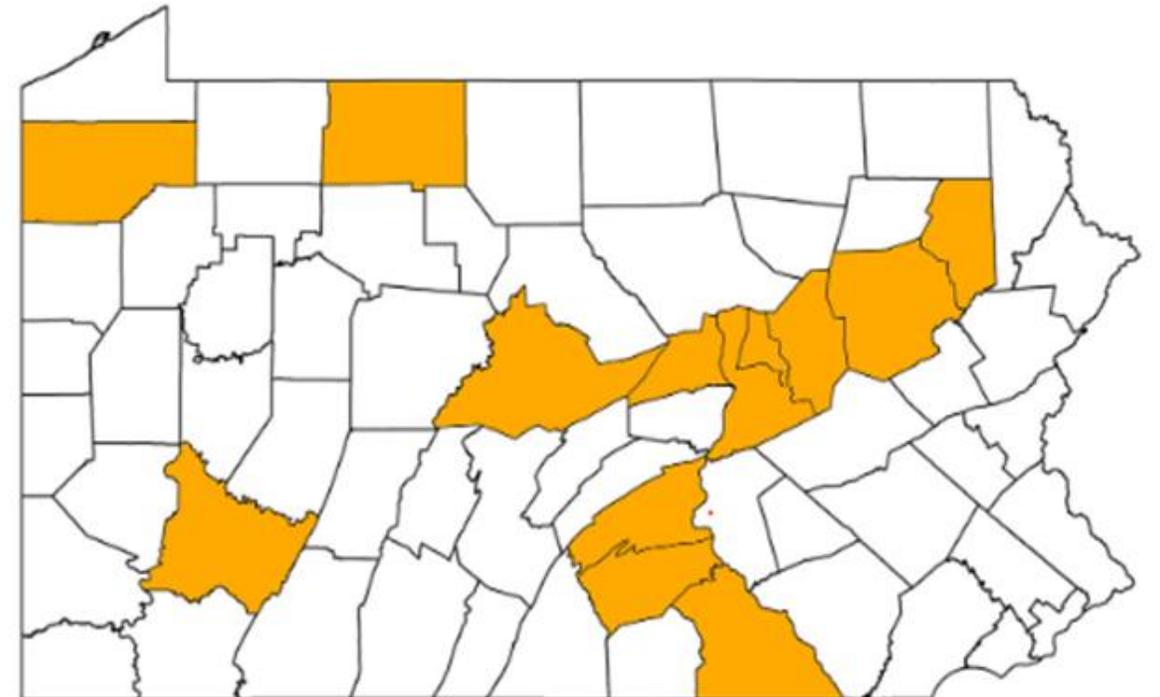


# JAMESTOWN CANYON VIRUS (JCV)



- Many people infected with JCV do not have any symptoms
- Initial symptoms are mild and flu-like but can develop to severe with stiff neck, difficulty speaking, loss of coordination, confusion, or seizures
- One location with JCV in New Florence

Jamestown Canyon Virus Activity Map 2025



**Legend**

- Jamestown Canyon Virus Detected
- Jamestown Canyon Virus Not Detected

Updated 10/24/25. Testing complete for 2025.

# HABITAT REDUCTION

- **Remove Junk**
  - Especially anything they can hold water
- **Inspect and Maintain Catch Basin**
  - Do not dump organic material (i.e. grass clippings) into basins
  - WCD can help you treat basins that hold water for extended periods
- **Avoid Mowing Wet Areas**
  - Mowing these areas creates more mosquito breeding habitat



# MOSQUITO CONTROL

- **Larval Control**
  - **Biological Larvicides**
    - BTI (*Bacillus thuringiensis israelensis*)
    - **Found at home/garden stores**
- **Adult Control**
  - **Last Resort**
  - In Response to WNV Activity
  - **Can be applied with a backpack, or a truck mounted apparatus**



# PROTECT YOURSELF

**Drain**



**Dress**



**Defend**



**Picaridin**



**DEET**

**IR3535**



# WHAT CAN YOU DO TO HELP?

- **Stagnant Water Ordinance**
  - Can be easily added to your stormwater ordinance
- **Reduce mosquito habitat where possible**
- **Avoid mowing wet areas**
- **Use BTI in areas of concern**
- **Ask us for help!**

AN ORDINANCE DEFINING STAGNANT WATER POOLS, DECLARING STAGNANT WATER POOLS TO BE A PUBLIC NUISANCE; DECLARING AN OFFENSE; ESTABLISHING PROCEDURES TO ABATE THE NUISANCE; PROVIDING FOR NOTICE; PROVIDING FOR A HEARING; PROVIDING FOR SEVERANCE CLAUSE; PRESCRIBING FEES; PROVIDING A REPEALING CLAUSE; PRESCRIBING A PENALTY; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED by the Council of the Borough as follows:

## SECTION 1. Definitions.

As used in this Ordinance, certain terms are defined as follows:

**Borough** – Borough of \_\_\_\_\_

**Stagnant Water Pool** – Stagnant water in pools in which mosquitos, flies or other insects may multiply, including, but not limited to, open containers, sewage, lagoons, ditches, roof gutters, wheelbarrows, bird bathes, ornamental pools, swimming pools, vegetation weeds, and grass in excess of eight inches (8”) in height (except as may be otherwise provided in Wetlands and Environmental Ordinances and Statutes).

**Premises** – A lot, plot or parcel of land including any structures thereon.

**Structure** – That which is built or constructed or a portion thereof.

**Titled Owner** – Any person, firm, partnership or corporation having legal title or equitable interest in a structure and/or premises as recorded in the official records of the state, county or municipality; or guardian of the estate of any such person, or the executor, or administrator, of the estate of such person if in possession of real property as a fiduciary or heir.

# TICK MONITORING & TESTING

- ✘ Drags in parks and public use areas
- ✘ Sampling is done to measure tick-borne diseases
- ✘ No treatment

## Commonly Collected Ticks in PA

- ✘ Blacklegged (deer) tick
- ✘ Longhorn ticks (pose a threat to cattle)
- ✘ Dog tick
- ✘ Lone Star tick



TickEncounter

Blacklegged Tick or Deer Tick (*Ixodes scapularis*)



Larva



Nymph



Adult Male



Adult Female



adult  
(female; 8 legs)



nymph  
(8 legs)



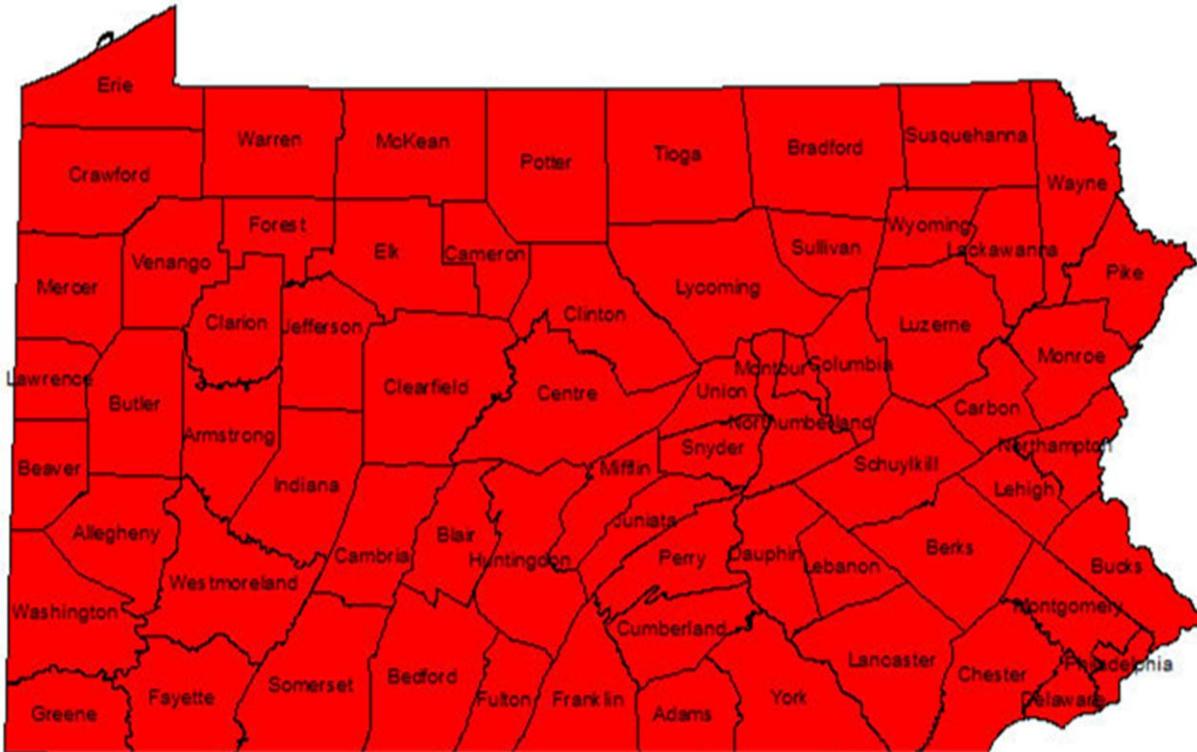
larva  
(6 legs)

1/8" (~3 mm)

Matt Bertone

# 2025 TICK RESULTS

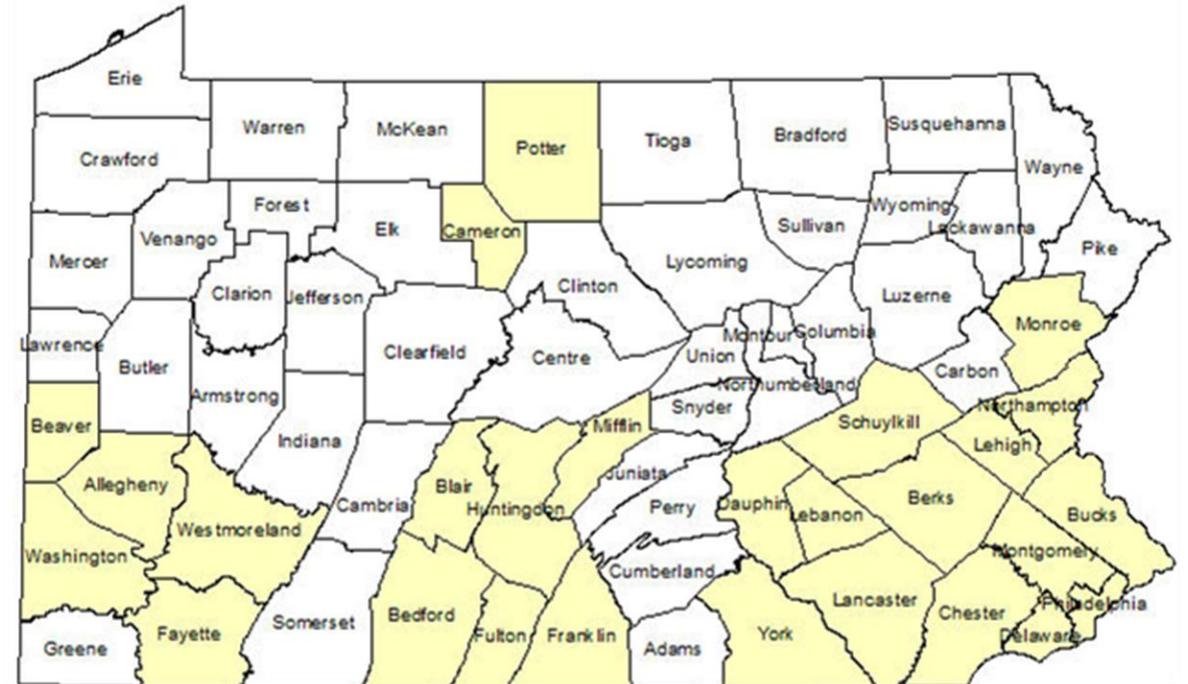
## Blacklegged Nymph Distribution 2025



### Diseases Transmitted

- Lyme Disease
- Anaplasmosis
- Babesiosis
- Deer Tick virus (less common)

## Longhorned Tick Distribution 2025



### Diseases Transmitted

- Theileria (in cattle)
- On going research on direct impacts to human health

# TICK FACTS

## MYTH:

*Ticks die in the winter and there is no risk of being bitten*

## FACT:

*The adult Blacklegged tick is primarily active throughout the fall and winter in Pennsylvania. The risk of being bitten still exists*

CHECK YOURSELF, YOUR CHILDREN, AND YOUR PETS AFTER BEING OUTDOORS.

## DID YOU KNOW?

### TICKS DO NOT...

FLY



JUMP

FALL FROM TREES



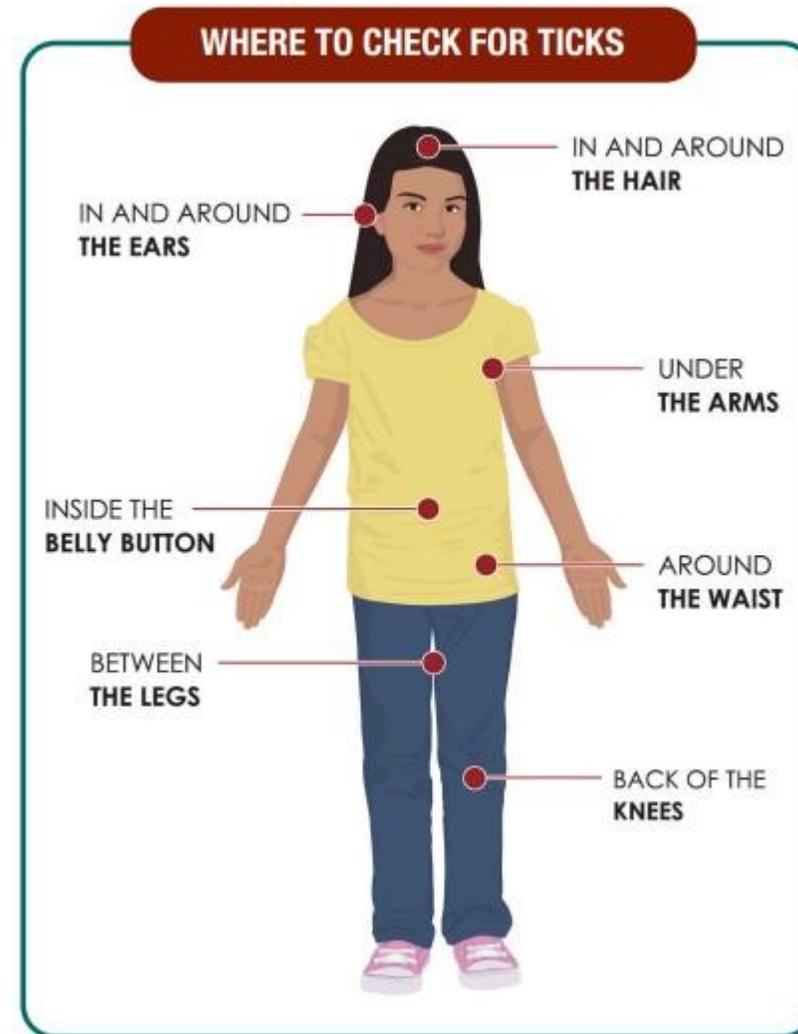
### TICKS DO SOMETHING CALLED QUESTING

*they climb low-lying vegetation or remain on the ground while extending their front pair of legs and wait for a host to pass and grab on to*



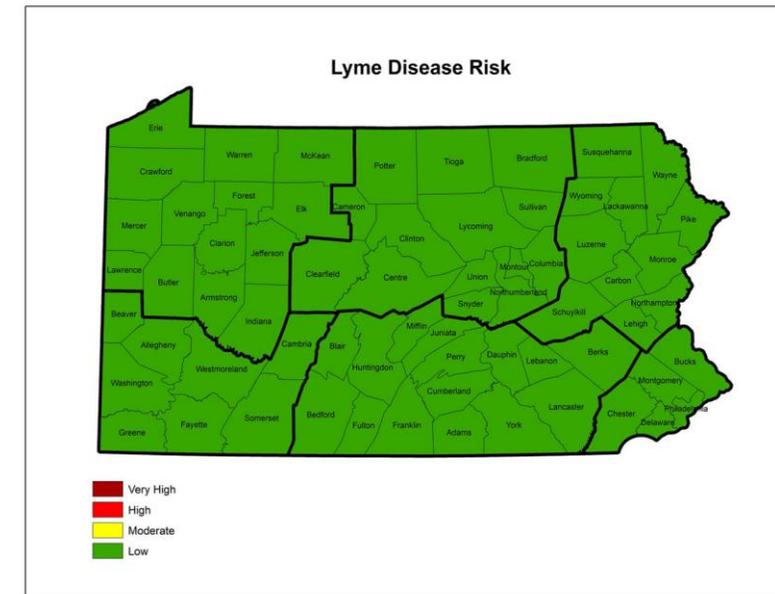
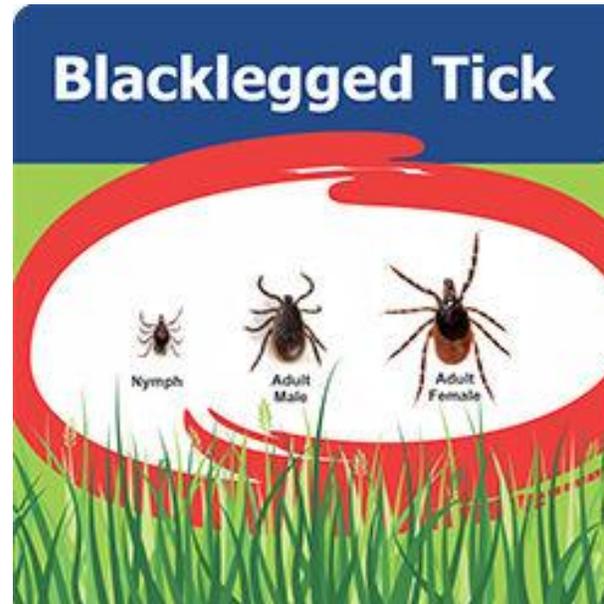
# PROTECT YOURSELF!

- × **Wear light-colored clothing**
- × **Tuck pants into socks**
- × **Treat clothes with permethrin**
- × **Be sure to read label! Do not apply to your body!**
- × **Use repellents such as DEET, Picaridin, or Oil of Lemon Eucalyptus**



# DEP VECTOR CONTROL WEBSITE

- × Helpful tool to find resources
- × Shows level of WNV transmission in the state
- × Also shows which ticks are currently active
- × Provides a lot of information
- × Google “DEP Vector Control”



# EDUCATION



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# CONTACT US

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