

By: Ann Herring

Greetings From

# VIRGINIA



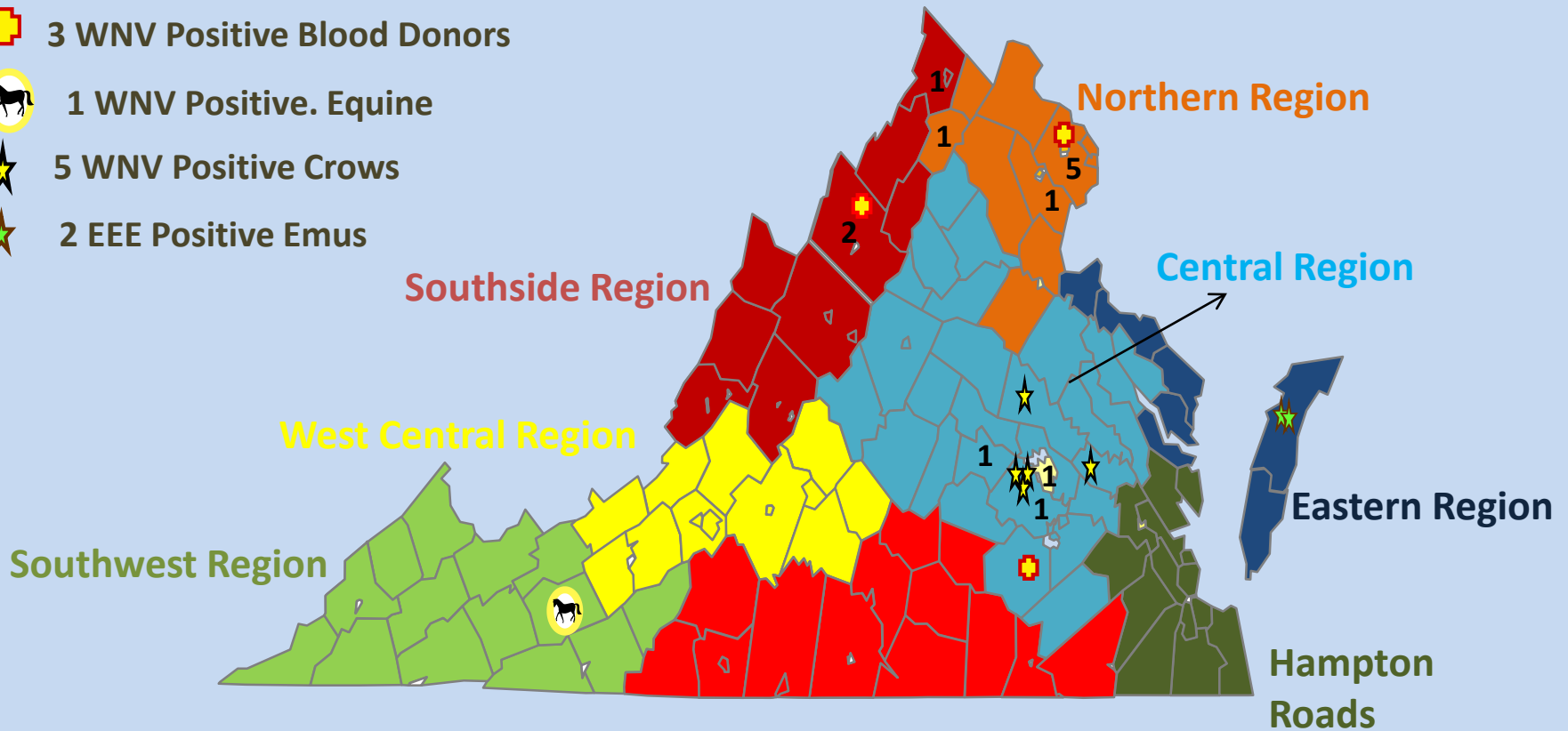
STATE BIRD - CARDINAL

STATE FLOWER - DOGWOOD

STATE FLAG

# Local Arboviral Cases and Zoonotic Indicators in Virginia in 2017

- ① 13 Human WNV Cases
- ⊕ 3 WNV Positive Blood Donors
- 🐎 1 WNV Positive. Equine
- ★ 5 WNV Positive Crows
- ★ 2 EEE Positive Emus



# 2017 WNV Surveillance Mosquito Pools & Positives

Total of 13,352 pools tested for WNV & EEE in 2017

12,323 pools tested for WNV  
787 tested Positive for WNV

## Top 3 mosquito species:

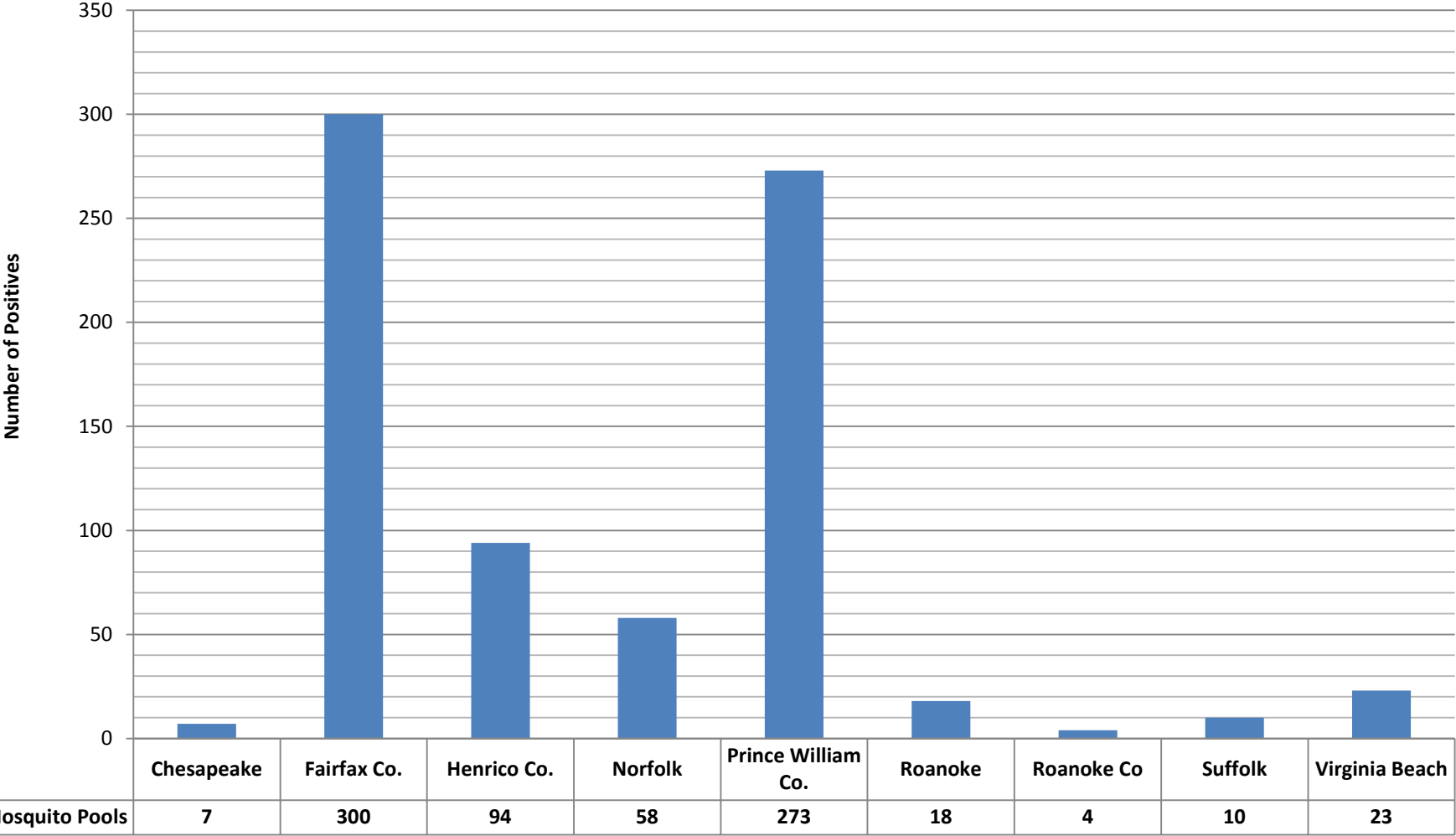
*Cx. pipiens/restuans*

*Ae. albopictus*

*Ae. Vexans*

*Cs. melanura* (made the top 3 in the Hampton Roads area)  
Chesapeake and Suffolk's combining numbers = 564,456

# Positive WNV Mosquito Pools



# 2017 Positives WNV Chicken Sera

- **Chickens:**
  - **15+ Hampton Roads Area**
    - 5 Chesapeake
    - 3 Norfolk
    - 6 Suffolk
    - 1 Virginia Beach
  - Hampton Roads is the only area that test Sentinel Chickens in Virginia.



The background of the slide features a repeating pattern of mosquitoes in various orientations and sizes, scattered across the white background. The mosquitoes are rendered in a light, semi-transparent grey color.

# 2017 EEE Surveillance

## Mosquito Pools & Positives

**Total of 13,352 pools tested for WNV & EEE in 2017**

**3,024 pools tested for EEE**  
**25 tested Positive for EEE**

**Chesapeake – 6**  
**Suffolk – 19**

***Cs. melanura* (made the top 3 in the Hampton Roads area)**  
**Chesapeake and Suffolk's combining numbers = 564,456**

# 2017 Positives EEE Chicken Sera

- **Chickens**
  - 9+ Hampton Roads Area
    - 4 Chesapeake
    - 4 Suffolk
    - 1 Virginia Beach
  - Hampton Roads is the only area that test Sentinel Chickens in Virginia.



# Aerial Sprays



## Chesapeake Mosquito Control = Spring 2017

### Larvaciding

7,824 total acres sprayed

## Portsmouth Mosquito Control

### Larvaciding

2,250 total acres sprayed

### Adulticiding

20,000 total acres sprayed

\*This included city and federal properties.  
Utilizing both private and military aircraft.



# Virginia Zika Testing

*Aedes albopictus* mosquito testing for the Zika Preparedness and Response Plan through The Division of Consolidated Laboratory Services (DCLS), Fairfax County Health Department, and National Center of Biodefense and Infectious Diseases, George Mason University.

A total of 1,287 pools of *Ae. albopictus* (46,699 mosquitoes) were tested for Zika virus by RT-PCR in 2017, with **no positives**. Most of these pools were collected in Northern VA, except 2 pools that came from Virginia Beach.

\*Total pool numbers reported by the Virginia Department of Health

## Mosquito Collection Localities:

Fairfax Co. - 966

Prince William Co. - 333

Virginia Beach – 2

\*Actual pool numbers reported from Localities

## All Pools Tested Negative

# Tick Borne Arboviral Diseases in Virginia in 2017

**Anaplasmosis** = 12 cases ( it is likely that most of these cases are really Ehrlichiosis cases but the patients were only tested for Anaplasmosis [ both conditions are serologically cross-reactive on the diagnostic tests that are uses on most patients]);

**Babesiosis** – 0 cases

**Ehrlichiosis** – 93 cases

**Ehrlichiosis/Anaplasmosis** = 3 cases ( patients that were tested for both and the results were both positive and undistinguishable);

**Lyme Disease** = 1,503 cases ( this # is close to our highest annual count for Lyme cases [1,539 cases] seen in 2015

**Spotted Fever Rickettsiosis** = 278 cases ( this # close to previous years; it's possible that many of these cases are actually Ehrlichiosis cases misdiagnosed as Rocky Mountain Spotted Fever (RMSF) in patients who either tested for Ehrlichiosis to early in their course of illness to test positive, but tested positive on the test for RMSF, or patients who are only tested for RMSF [at any time, anywhere from 6% to 10% of the VA population would test positive for RMSF because citizens are frequently exposed to non-disease causing spotted fever group Rickettsiae through lone star tick bites, and exposure to any SFGR causes cross-reactive positives on RMSF test results];

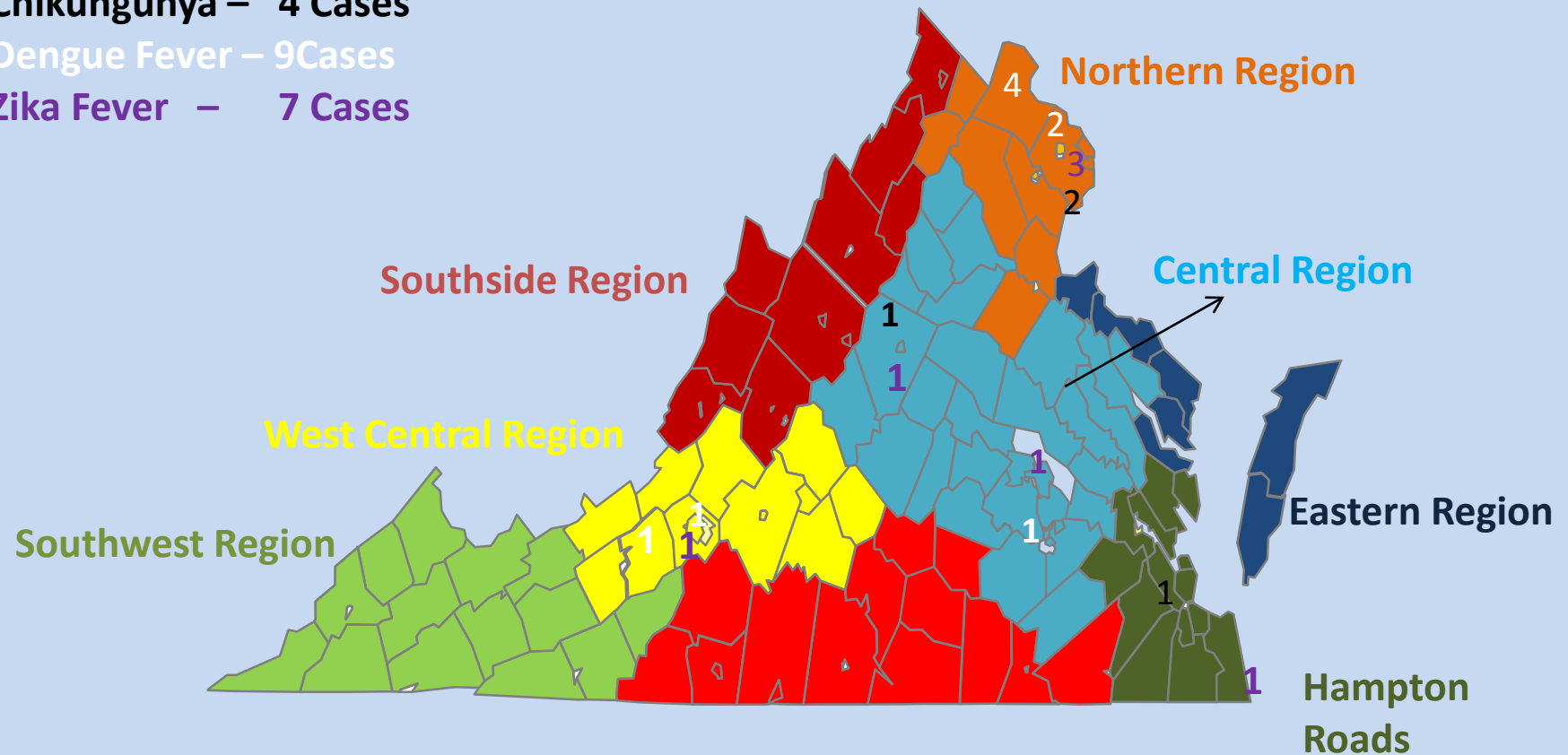
**Tularemia** = 1 case (tularemia can be transmitted by many different methods but is sometimes transmitted by mite and tick bites).

# Cases of Imported Chikungunya, Dengue and Zika in Virginia in 2017.

Chikungunya – 4 Cases

Dengue Fever – 9 Cases

Zika Fever – 7 Cases



# 2017 Virus Activity

- **Chikungunya**

- 4 imported cases: All patients had traveled in South Asia or Western Pacific Island nations (2-Bangladesh, 1-Pakistan, 1-Indonesia)

- **Dengue Fever**

- 9 Imported cases: including one case of severe dengue (dengue hemorrhagic fever): All patients had traveled in South Asia or Western Pacific Island nations (6- India, 1- Myanmar, 1-Thailand, & 1-Philippines)

- **Zika**

- 7 imported cases: All patients had traveled in the tropical Americas  
(3- Mexico, 1- Bonaire, 1- Costa Rica, 1- Cuba, & 1- Honduras)

## All Imported Cases

# Virginia Organizations

## Virginia Mosquito Control Association's 2018 Board



President  
**George Wojcik**



President Elect  
**LaToya White**



Vice President  
**Andy Lima**



First Vice President  
**Tim DuBois**



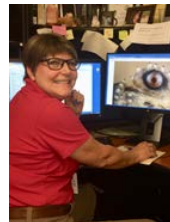
Secretary/Treasurer  
**Jay Kiser**



Past President  
**Jeff Hottenstein**



Sustaining Member  
Representative  
**Ted Bean**



MAMCA  
Representative  
**Elizabeth (Betsy)  
Hobson**



Secretary  
**Michael Bowry**

## Tidewater Mosquito Vector Control Council's 2018 Board



TMVCC President  
And Representative  
**Michelle Slosser**



Vice President  
**Chris Hohnholt**

For more information on the VMCA, visit: [www.mosquito-va.org](http://www.mosquito-va.org)

# 72<sup>nd</sup> Annual Meeting of the Virginia Mosquito Control Association

Hilton Virginia Beach Oceanfront

February 6<sup>th</sup> – 8<sup>th</sup> 2019



So make your plans now to attend...

Thank You!

Questions

## Acknowledgements:

### Laboratories:

The Division of Consolidated Laboratory Services (DCLS)

PA Dept. of Health Laboratory

PA Dept. of Environmental Protection Laboratory

Fairfax County Dept. of Health Laboratory

VDH – Division of Surveillance and Investigation

VDH – Regional and District Epidemiology Staff

### Individuals:

Dr. David Gaines with Virginia Dept. of Health (VDH) –

Division of Environmental Epidemiology

### Surveillance Programs:

Chesapeake Mosquito Control

Fairfax County Dept. of Health – Vector Borne Diseases Program

Hampton Mosquito Control

Henrico County Mosquito Control

Norfolk Mosquito Control

Portsmouth Mosquito Control

Prince William County Mosquito & Pest Management

Suffolk Mosquito Control

Virginia Beach Mosquito Control

Virginia Dept. of Health (VDH) – Division of Environmental Epidemiology

York County Health Department