

# **Vector-borne Disease in Minnesota**

**Minnesota Department of Health  
Acute Disease Investigation and Control**

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**SPHVCC Meeting**

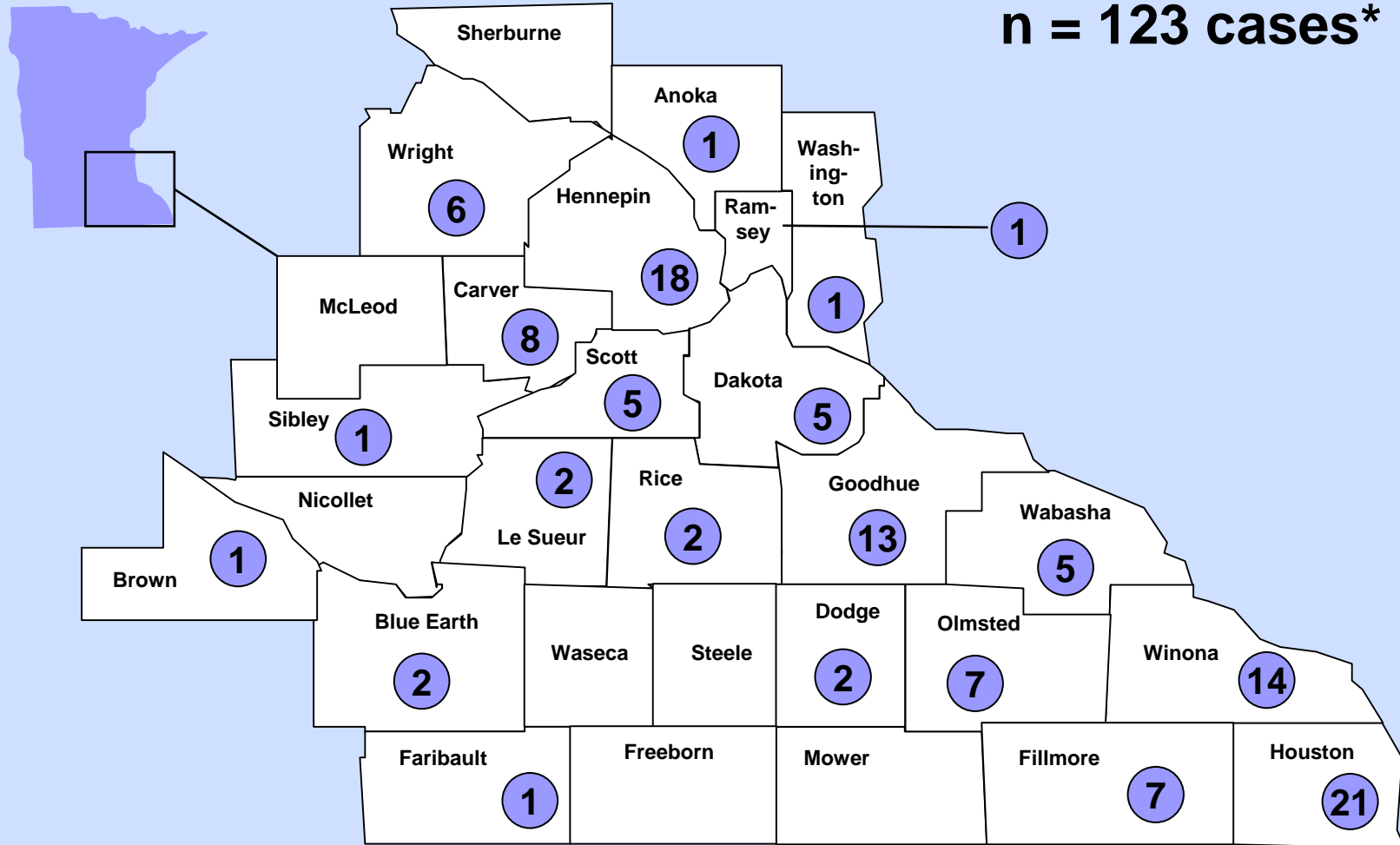
**March 2008**

# Minnesota's Biomes



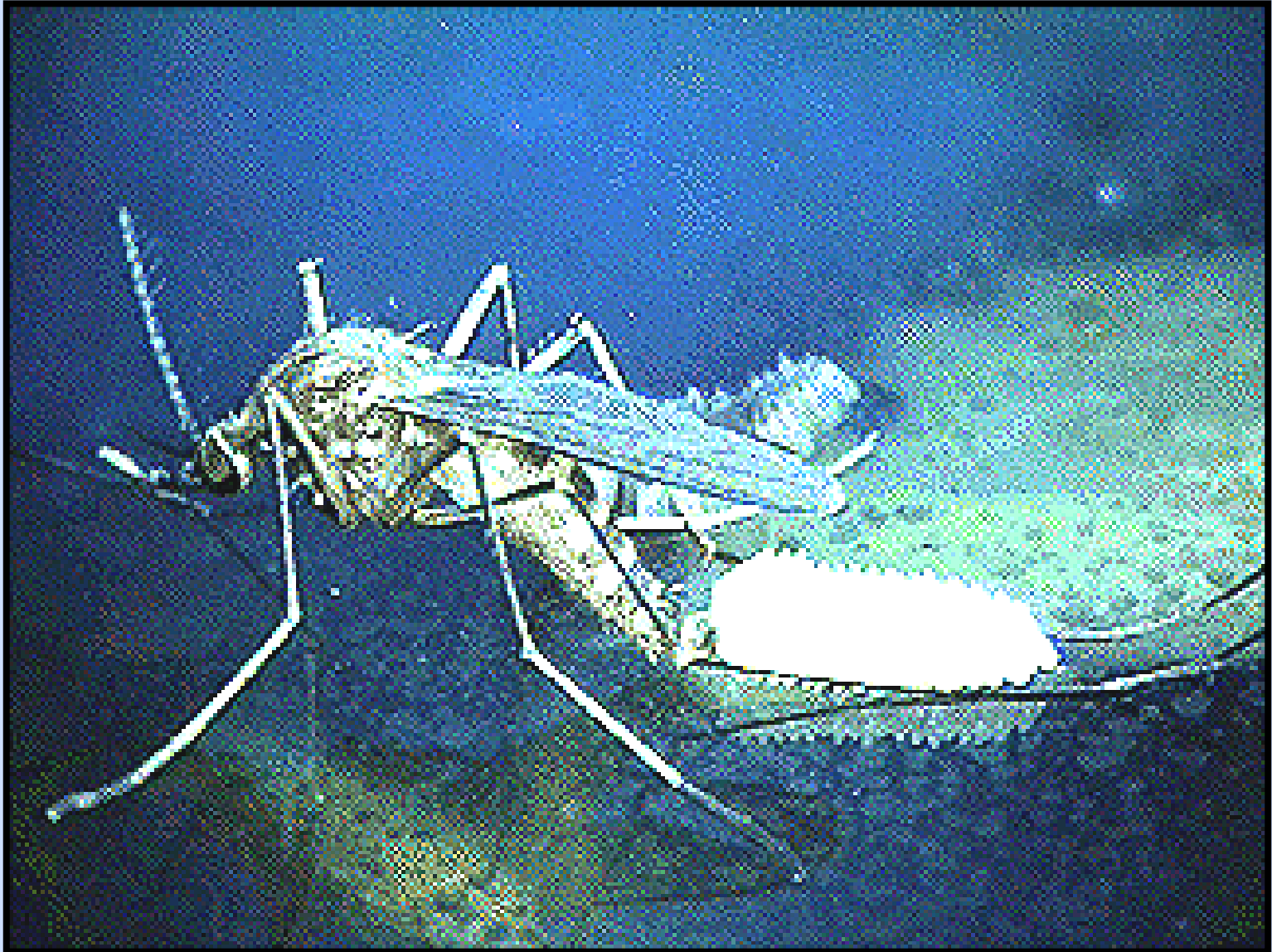
# Reported Cases of LaCrosse Encephalitis by County of Residence, Minnesota, 1985-2007

n = 123 cases\*

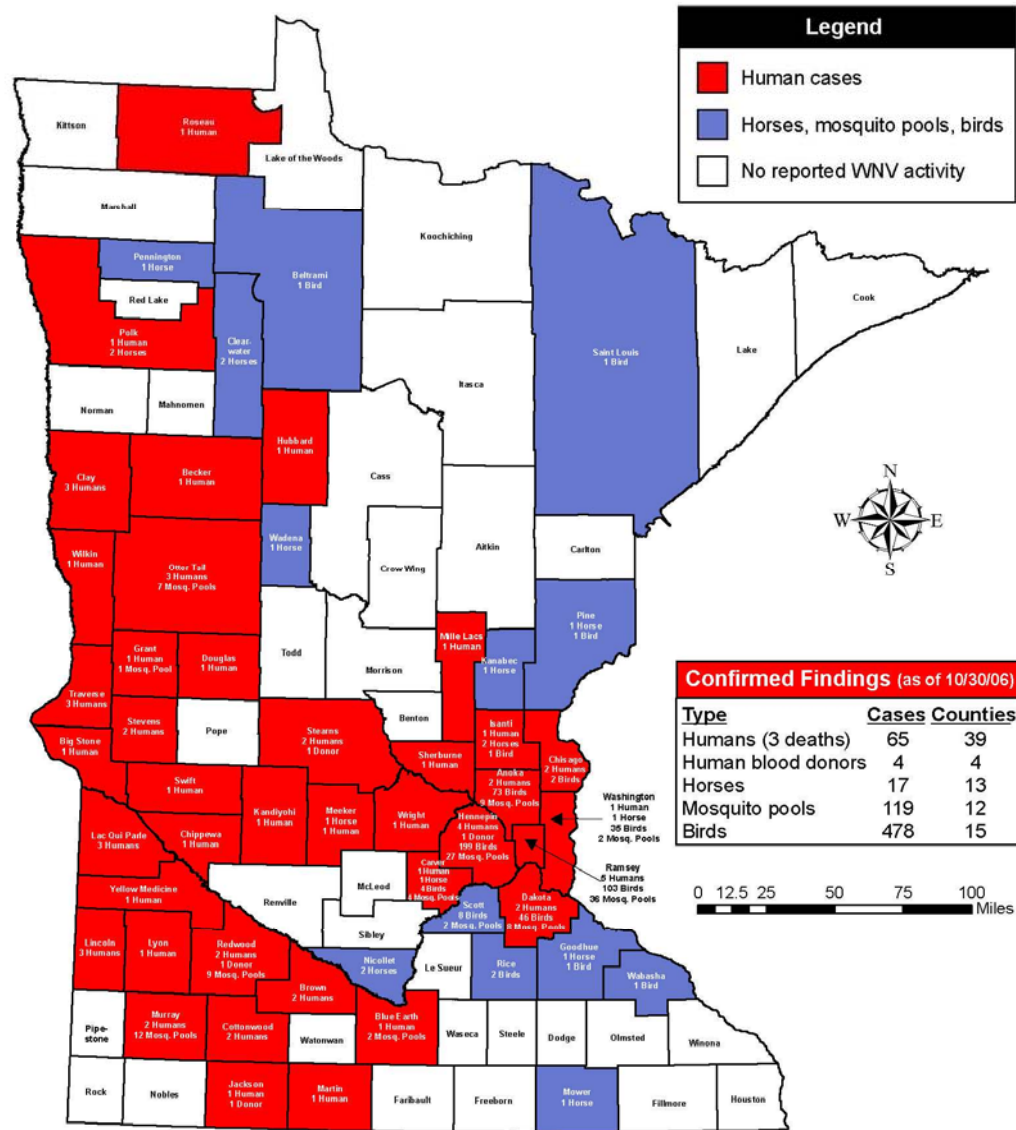


\*Cases include confirmed and probable cases

# West Nile Virus (WNV)



# Minnesota West Nile Virus Monitoring, 2006

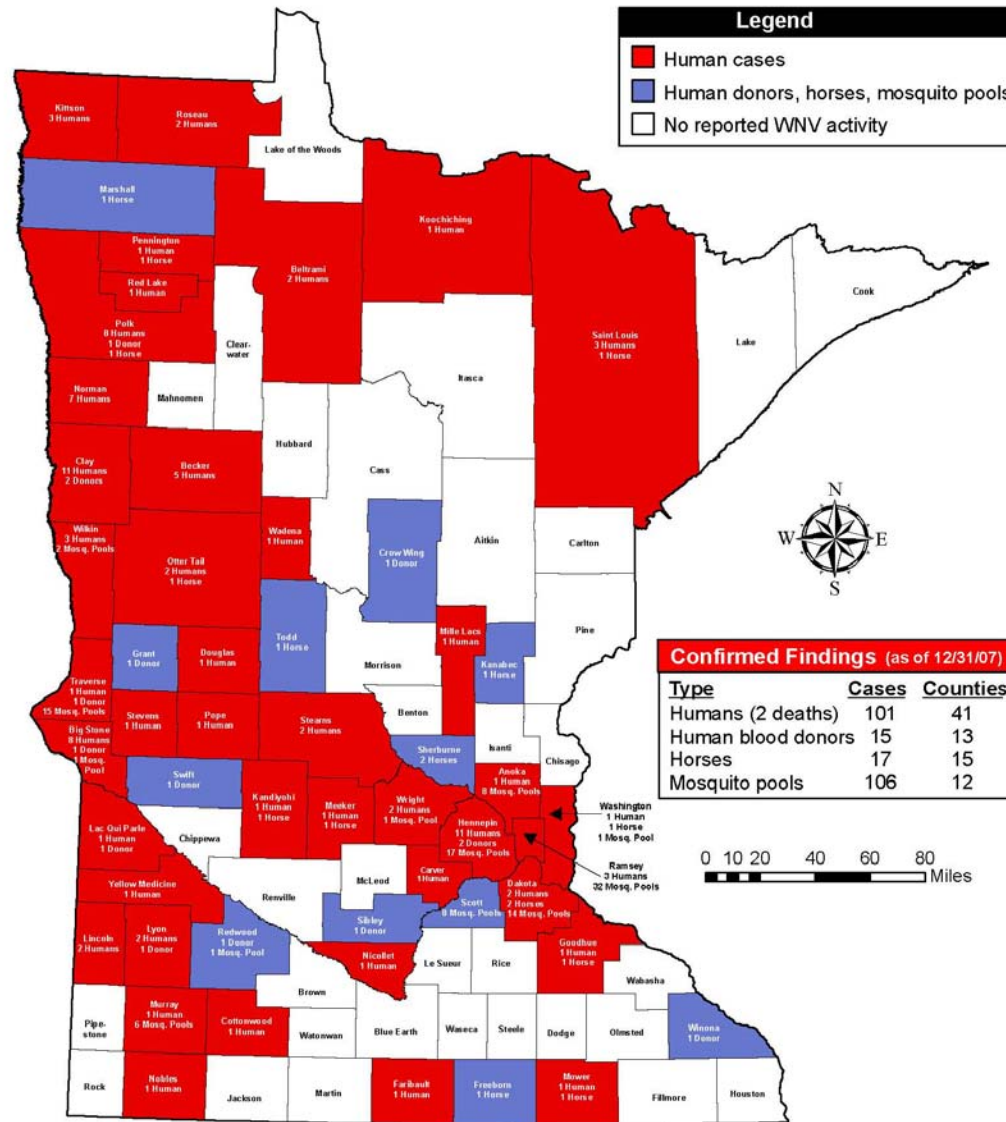


The Minnesota Department of Health no longer routinely tests birds for West Nile virus (WNV) in Greater Minnesota, although occasional birds may be tested for special research purposes.

The Metropolitan Mosquito Control District ([www.mmcd.org](http://www.mmcd.org), 651-645-9149) is monitoring WNV in birds in the seven-county Twin Cities area for its local control activities.



# Minnesota West Nile Virus Monitoring, 2007



The Minnesota Department of Health (MDH) monitors mosquito populations in six counties in western and southwestern Minnesota: Big Stone, Murray, Ottertail, Redwood, Traverse, and Wilkin. MDH no longer routinely tests birds for West Nile virus (WNV) in Minnesota.

The Metropolitan Mosquito Control District ([www.mmcd.org](http://www.mmcd.org), 651-645-9149) monitors mosquitoes and birds in the seven-county Twin Cities area for its local control activities.



# Human WNV Cases in Minnesota, 2002-2007

## Residence of locally-acquired cases\*

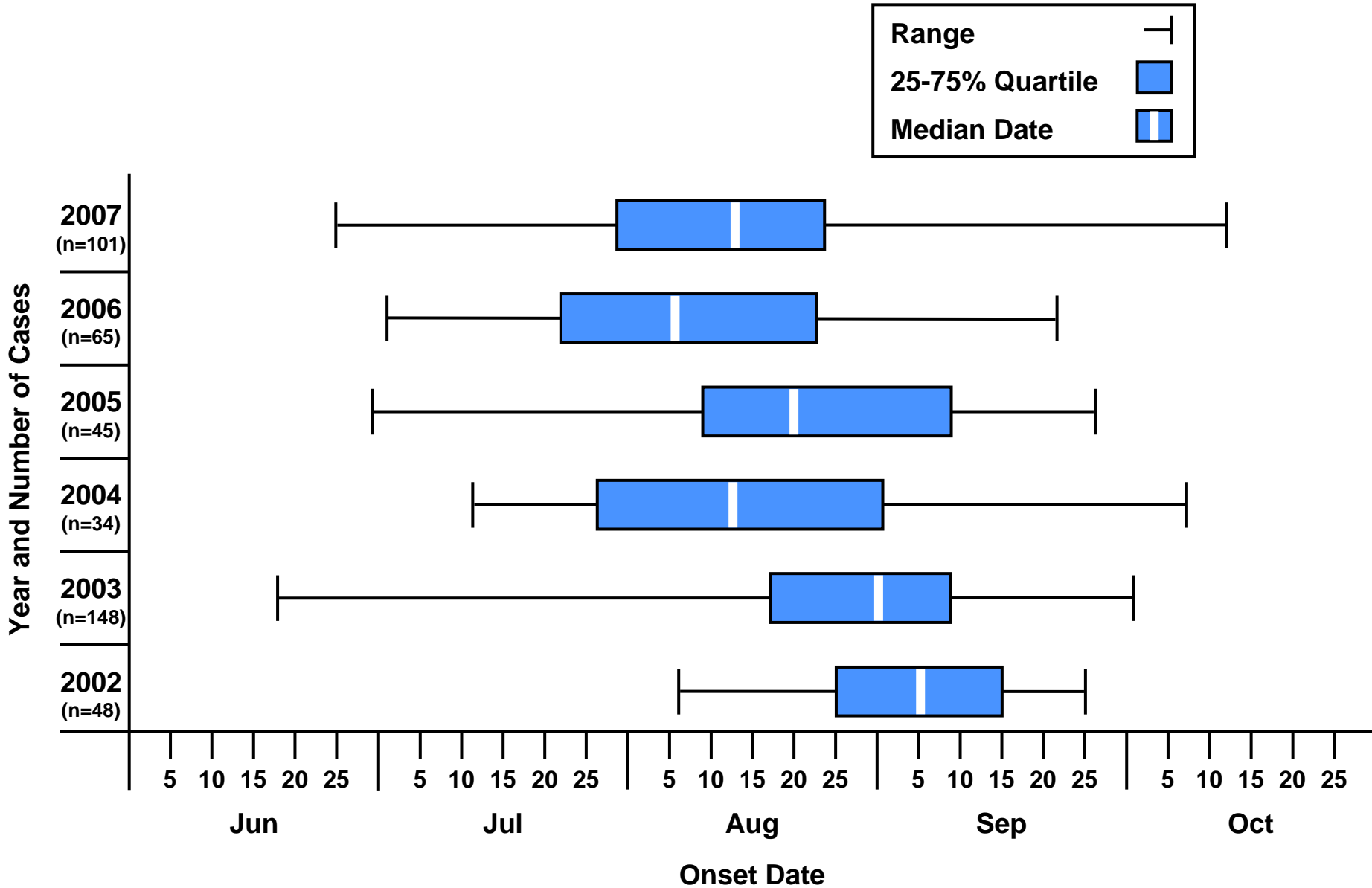
Rural: 190 (52%)

Small town: 99 (27%)

City/suburb: 74 (20%)

\* n=363 (82%) of 441 cases that may have been exposed  
at home

# Human WNV Cases by Median Date of Illness Onset, Minnesota, 2002-2007





# **WNV Testing of Blood Donors, Minnesota, 2003-2007**

- **58 viremic donors identified**
- **10 (17%) subsequently developed West Nile fever**

# Exotic Mosquitoes



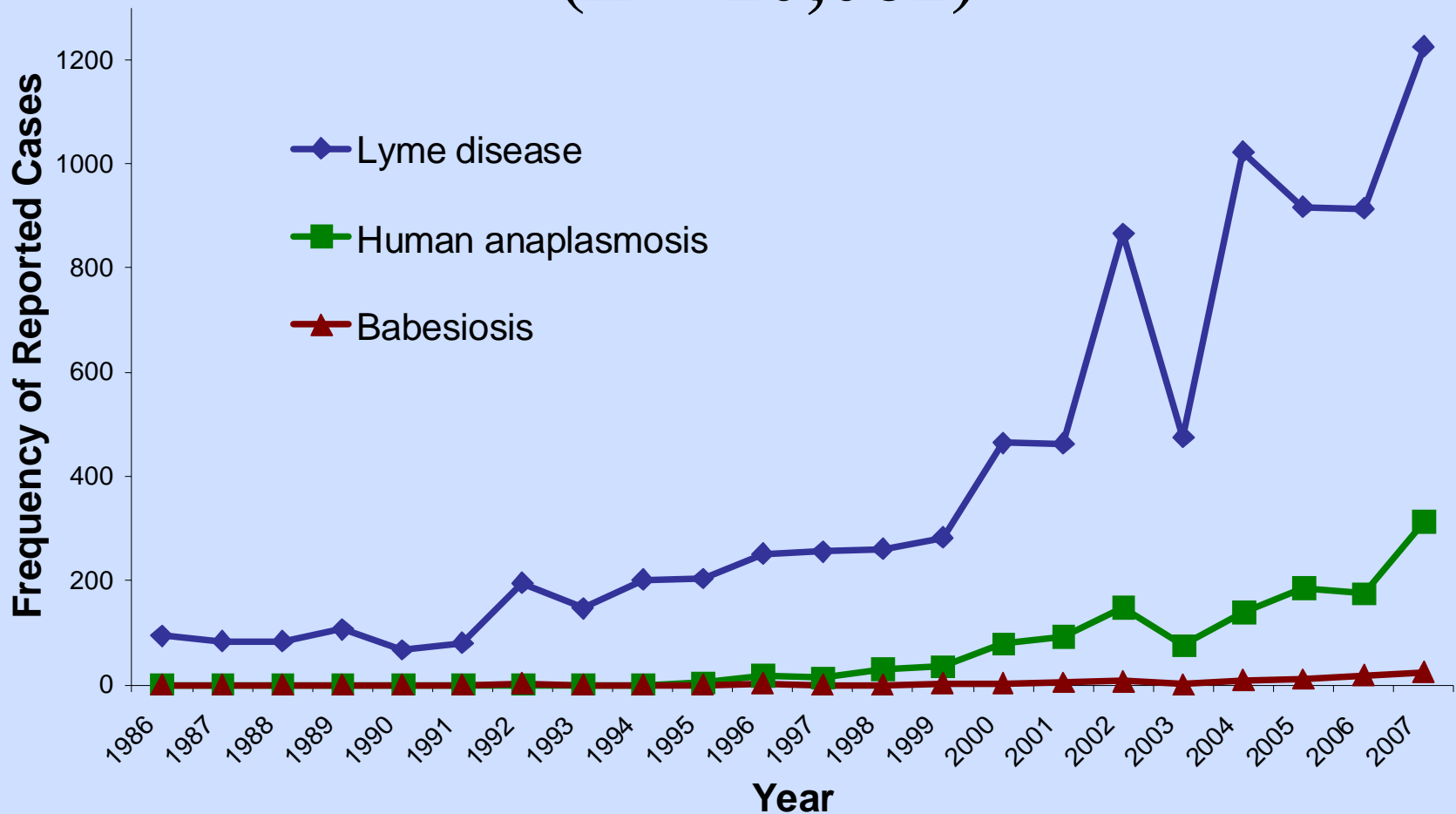
*Aedes albopictus*

# Tick-borne Diseases in Minnesota



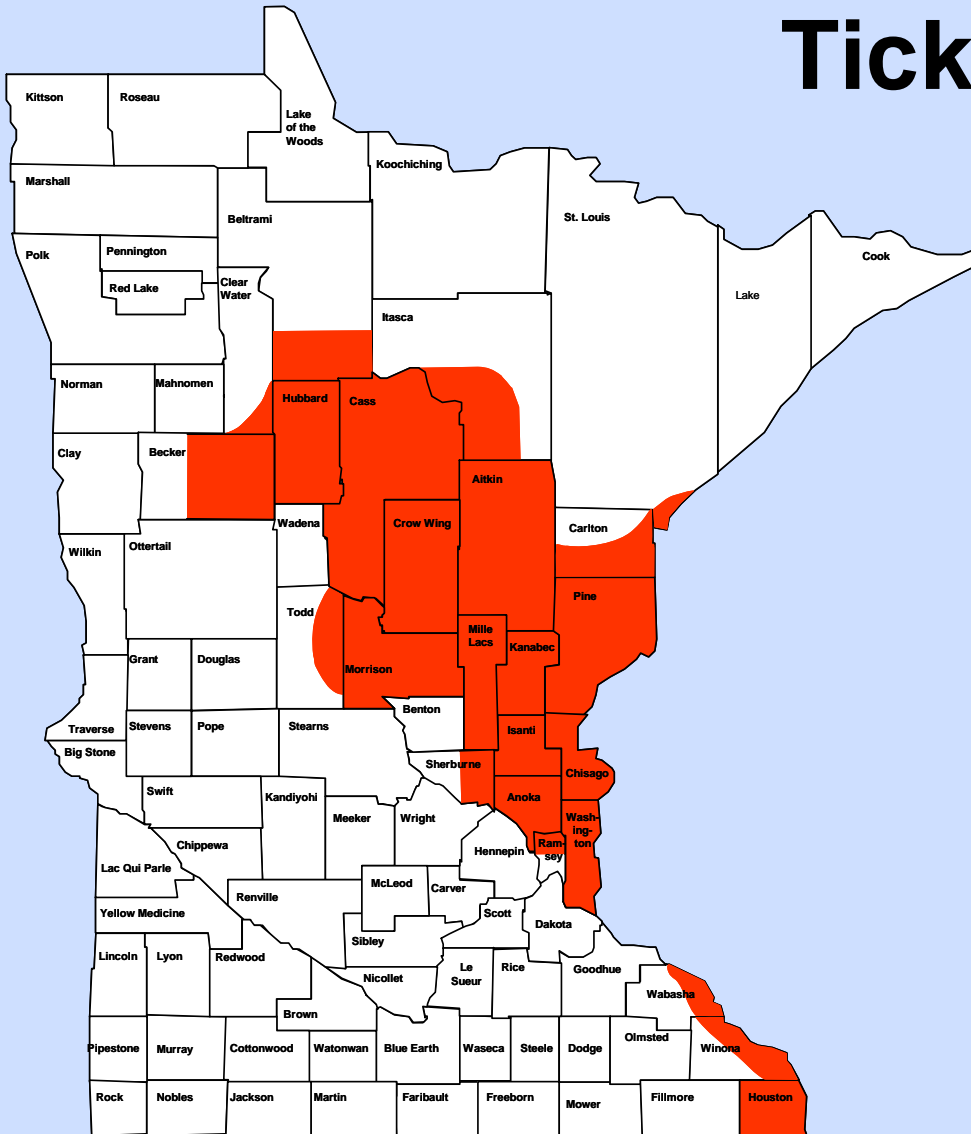
# Reported Tick-Borne Disease Cases in Minnesota, 1986-2007\*

(n = 10,061)



\* Preliminary 2007 numbers as of 03/21/2008

# High Risk Areas for Tick-borne Diseases in Minnesota



# **Challenges to Vector-borne Disease Surveillance in Minnesota**

- **Increasing incidence and expanding range of tick-borne disease**
- **Climate change**
- **Decreasing funding levels**