



Tarrant County Public Health

West Nile Virus Update



TCPH West Nile Virus (WNV) Activity Report
MMWR Week 31 (July 27 – August 2, 2014)
Report Date: August 6, 2014

- 163 mosquito pools submitted during MMWR Week 31; 10 pools with collection dates during Week 31 tested positive for WNV – Bedford (3), Colleyville (2), Euless (3), North Richland Hills (1), Unincorporated (1). 3 pools with collection dates during Week 32* tested positive for WNV – Euless (1), Hurst (2); All pools tested negative for SLEV
- 2,298 mosquito pools submitted in 2014; All pools have tested negative for SLEV; 29 pools have tested positive for WNV:
 - Bedford (11)
 - Hurst (2)
 - Benbrook (1)
 - North Richland Hills (2)
 - Colleyville (7)
 - Unincorporated (1)
 - Euless (5)
- 1 human WNV case was reported during Week 31 (WNND). To date in 2014 there have been no human WNF cases and 1 human WNND case reported in Tarrant County.
- More information can be found at: [Take Control, Stop West Nile Virus](#)

*Positive pools collected in week 32 are not included in the provided tables/graphs because they fall outside the weeks covered in this report
 WNF = West Nile Fever; WNND = West Nile Neuroinvasive Disease

Table 1. WNV activity summary, Tarrant County, Weeks 27-31, 2014

Week	Jun 29 - Jul 5	Jul 6 - Jul 12	Jul 13 - Jul 19	Jul 20 - Jul 26	Jul 27 - Aug 2	YTD
MMWR Week	27	28	29	30	31	
Total traps placed in Tarrant County	191	183	177	192	149	2,561
Average number of female <i>Culex</i> species per trap	27.7	95.0	87.5	73.4	62.8	35.3
Number of mosquito pools tested ¹	156	186	185	158	163	2,298
Number of positive mosquito pools ²	2	3	3	6	10	29
Confirmed WNV human cases (WNF; WNND) ³	0;0	0;0	0;0	0;0	0;1	0;1
Presumptive WNV viremic blood donors	0	0	0	0	0	0
WNV infection rate per 1,000 <i>Cx. quinquefasciatus</i> ⁴	0.59	0.57	0.53	1.00	1.92	
Weekly vector index ⁵	0.016	0.054	0.045	0.073	0.120	

¹ Based on lab testing date

² Based on mosquito collection date

³ Based on onset of illness date for cases reported to Tarrant County Public Health; WNF=West Nile Fever; WNND = West Nile Neuroinvasive Disease

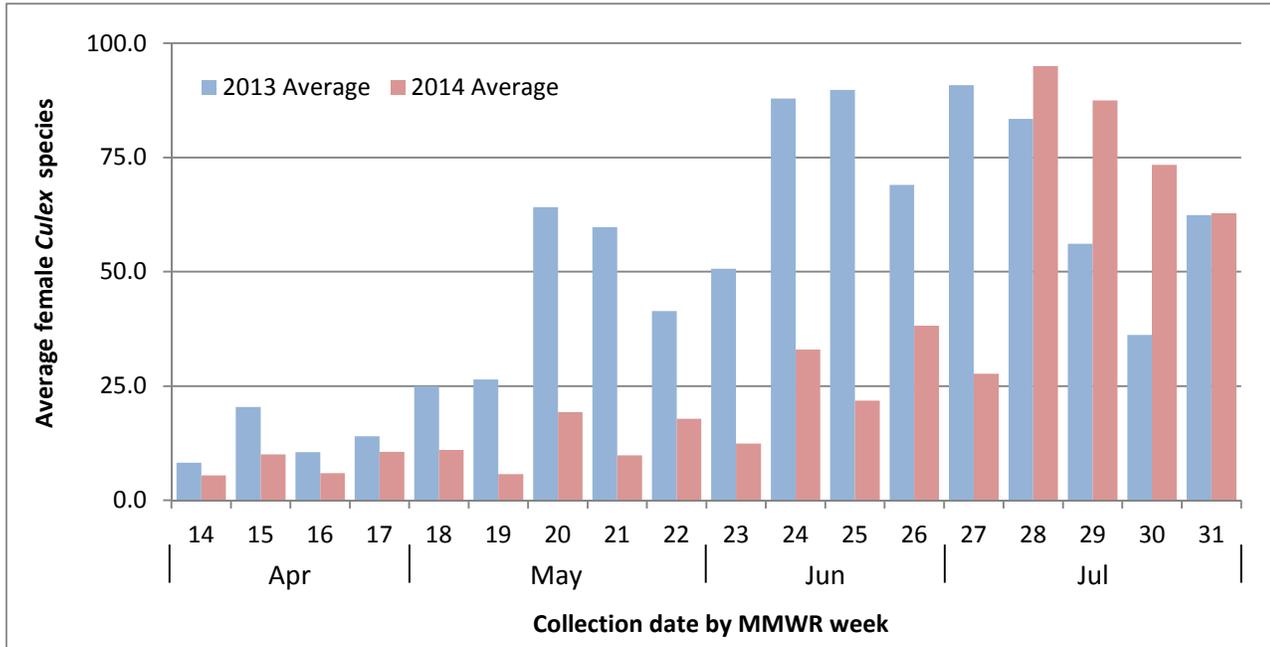
⁴ Calculated using a Maximum Likelihood Estimation (MLE). Biggerstaff, Brad J. PooledInfRate, Version 4.0: a Microsoft® Office Excel® Add-In to compute prevalence estimates from pooled samples. Centers for Disease Control and Prevention, Fort Collins, CO, U.S.A., 2009

⁵ Vector Index is a measure of infectivity accounting for vector species composition, vector species population density, and proportion of vector population infected with WNV

Data subject to change due to on-going case investigations, mosquito collection, and testing

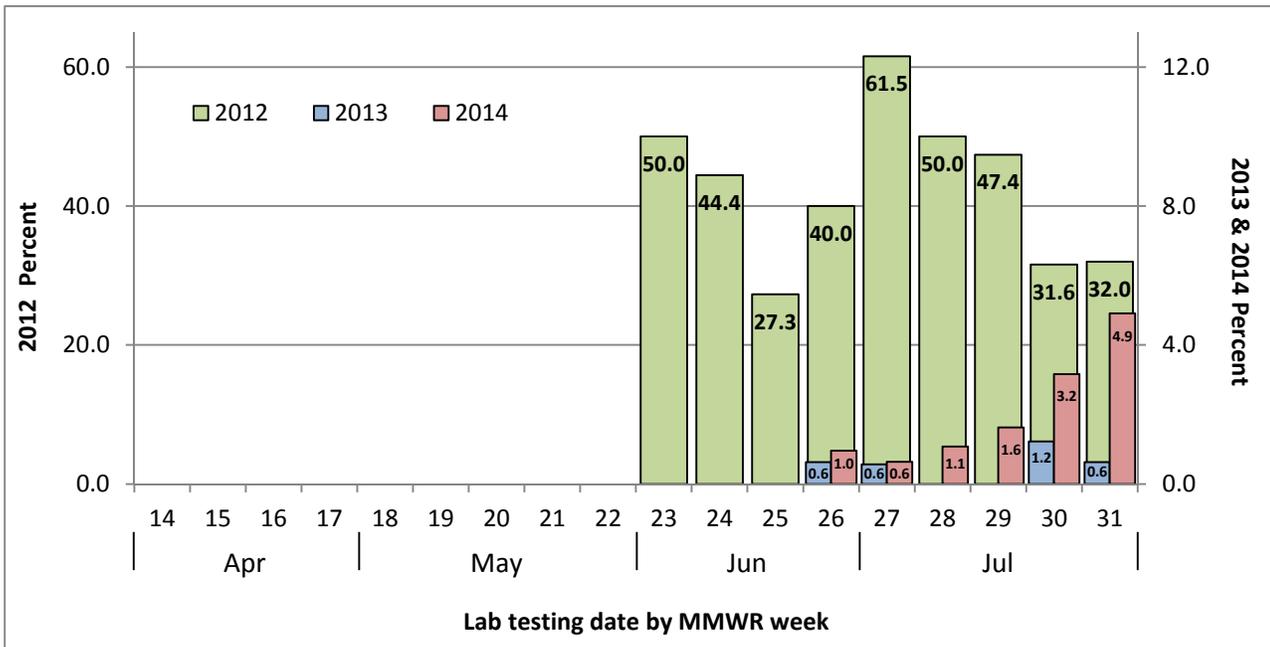
Data source: Tarrant County Public Health

Figure 1. Average number of female *Culex* species per trap, Tarrant County, Weeks 14-31, 2014



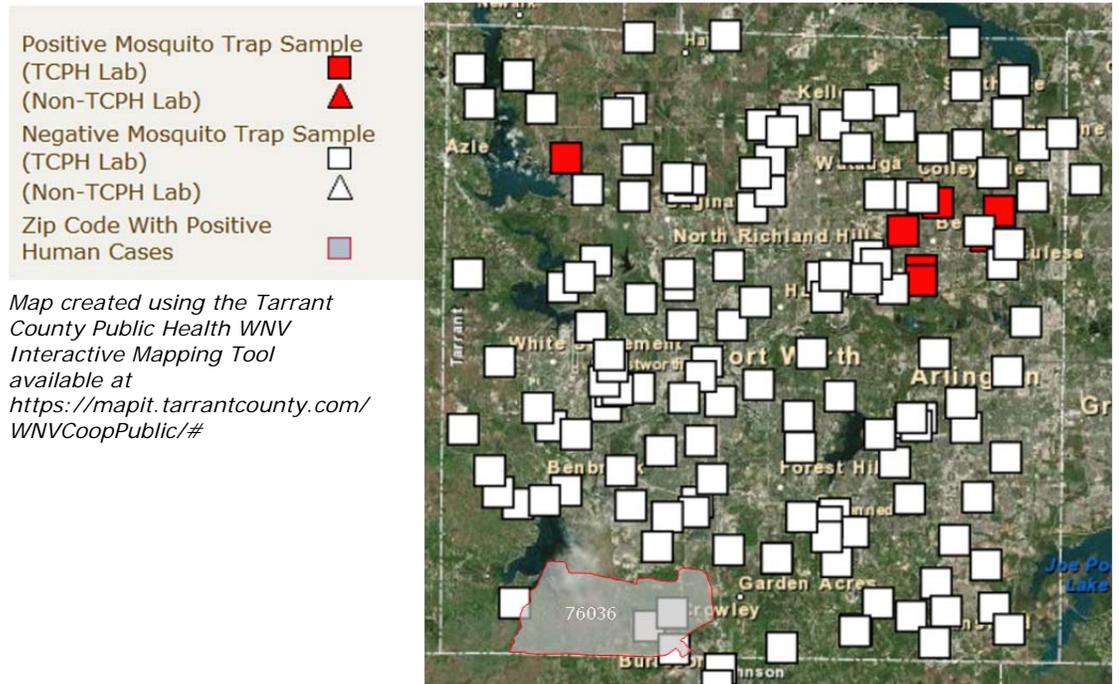
Data source: Tarrant County Public Health

Figure 2. Percentage of submitted mosquito pools that tested positive for WNV, Tarrant County, Weeks 14-31, 2012-2014



Data source: Tarrant County Public Health

Figure 3. Mosquito trap results and human WNV cases, Tarrant County, Week 31, 2014



Note: Map does not reflect all positive pools for the week due to data limitations at time of publication. An updated map is available online at <https://mapit.tarrantcounty.com/WNVCoopPublic/#>

State-wide WNV activity reported on August 5, 2014

- A total of 845 mosquito pools have tested positive this season for WNV in the following Texas counties:
 - Dallas (13)
 - Fort Bend (1)
 - Harris (692)
 - Montgomery (119)
 - Tarrant (20)
- A total of 15 human WNV cases have been reported this season in the following Texas counties:
 - Brazoria (1 WNF; 0 WNND)
 - Dallas (2 WNF; 0 WNND)
 - Ellis (1 WNF; 0 WNND)
 - Galveston (0 WNF; 1 WNND)
 - Liberty (0 WNF; 1 WNND)
 - Montgomery (1 WNF; 5 WNND)
 - Parker (1 WNF; 0 WNND)
 - Tarrant (0 WNF; 1 WNND)
 - Travis (1 WNF; 0 WNND)

WNF = West Nile Fever
 WNND – West Nile Neuroinvasive Disease
 Data source: Texas Department of State Health Services