



Tarrant County Public Health West Nile Virus Update



TCPH Arbovirus Activity Report MMWR Week 34 (August 17 – August 23, 2014) Report Date: August 27, 2014

- 169 mosquito pools submitted during MMWR Week 34; 27 pools with collection dates during Week 34 tested positive for WNV – Arlington (1), Bedford (4), Colleyville (4), DFW Airport (1), Euless (4), Fort Worth (3), Hurst (3), Keller (3), North Richland Hills (1), Richland Hills (2), Southlake (1). 9 pools with collection dates during Week 35* tested positive for WNV – Edgecliff Village (1) Euless (4), Grapevine (2), Hurst (1), Southlake (1); All pools tested negative for SLEV
- 2,837 mosquito pools submitted in 2014; All pools have tested negative for SLEV; 88 pools have tested positive for WNV in 2014:
 - Arlington (1)
 - Bedford (23)
 - Benbrook (1)
 - Colleyville (12)
 - DFW Airport (3)
 - Edgecliff Village (1)
 - Euless (16)
 - Fort Worth (4)
 - Grapevine (5)
 - Hurst (7)
 - Keller (3)
 - Mansfield (1)
 - North Richland Hills (4)
 - Richland Hills (4)
 - Southlake (2)
 - Unincorporated (1)
- 1 imported case of CHIKV disease and no human DENV, SLEV, or WNV cases were reported during Week 34. To date in 2014 there has been 1 imported CHIKV disease case, 1 human WNND case, no human WNF cases, no DENV cases, and no SLEV cases reported in Tarrant County.
- More information can be found at: [Take Control, Stop West Nile Virus](#)

*Positive pools collected in week 35 are not included in the provided tables/graphs because they fall outside the weeks covered in this report
CHIKV-Chikungunya Virus; DENV-Dengue Virus; SLEV-St. Louis Encephalitis Virus; WNV–West Nile Virus; WNF-West Nile Fever; WNND-West Nile Neuroinvasive Disease

Table 1. WNV activity summary, Tarrant County, Weeks 30-34, 2014

Week	Jul 20 - Jul 26	Jul 27 - Aug 2	Aug 3 - Aug 9	Aug 10 - Aug 16	Aug 17 - Aug 23	YTD
MMWR Week	30	31	32	33	34	
Total traps placed in Tarrant County	192	189	177	190	171	3,141
Average number of female <i>Culex</i> species per trap	73.4	65.5	108.2	103.6	74.5	46.2
Number of mosquito pools tested ¹	158	163	186	184	169	2,837
Number of positive mosquito pools (NTRL; Non-NTRL) ²	6;0	10;0	8;0	17;1	27;0	87;1
Confirmed WNV human cases (WNF; WNND) ³	0;0	0;1	0;0	0;0	0;0	0;1
Presumptive WNV viremic blood donors	0	0	0	0	0	0
WNV infection rate per 1,000 <i>Cx. quinquefasciatus</i> ⁴	1.00	1.58	1.24	2.42	4.53	
Weekly vector index ⁵	0.073	0.103	0.133	0.248	0.334	

¹ Based on lab testing date

² Based on mosquito collection date; NTRL = North Texas Regional Laboratory

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

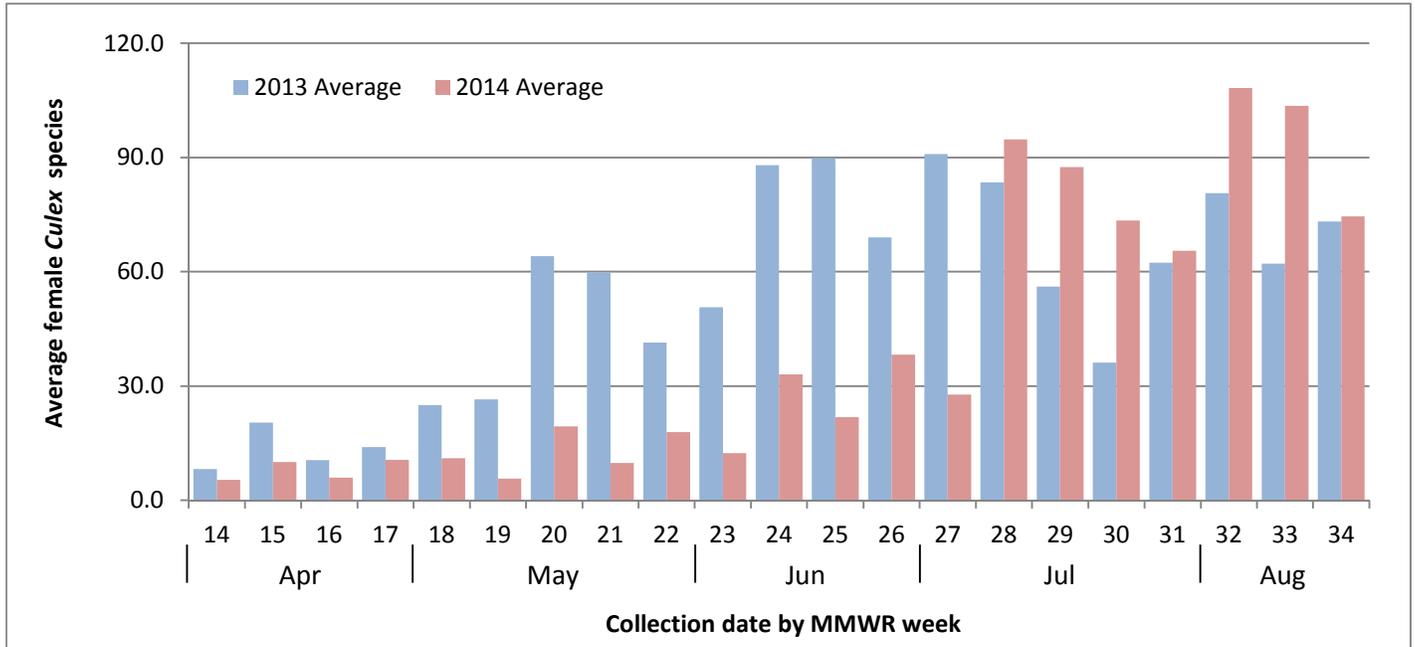
⁵ Vector Index is a measure of infectivity accounting for vector species composition, vector species population density, and proportion of vector population infected with WNV

Note: Infection rate and vector index calculations do not include positive pools from Non-NTRL laboratories

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

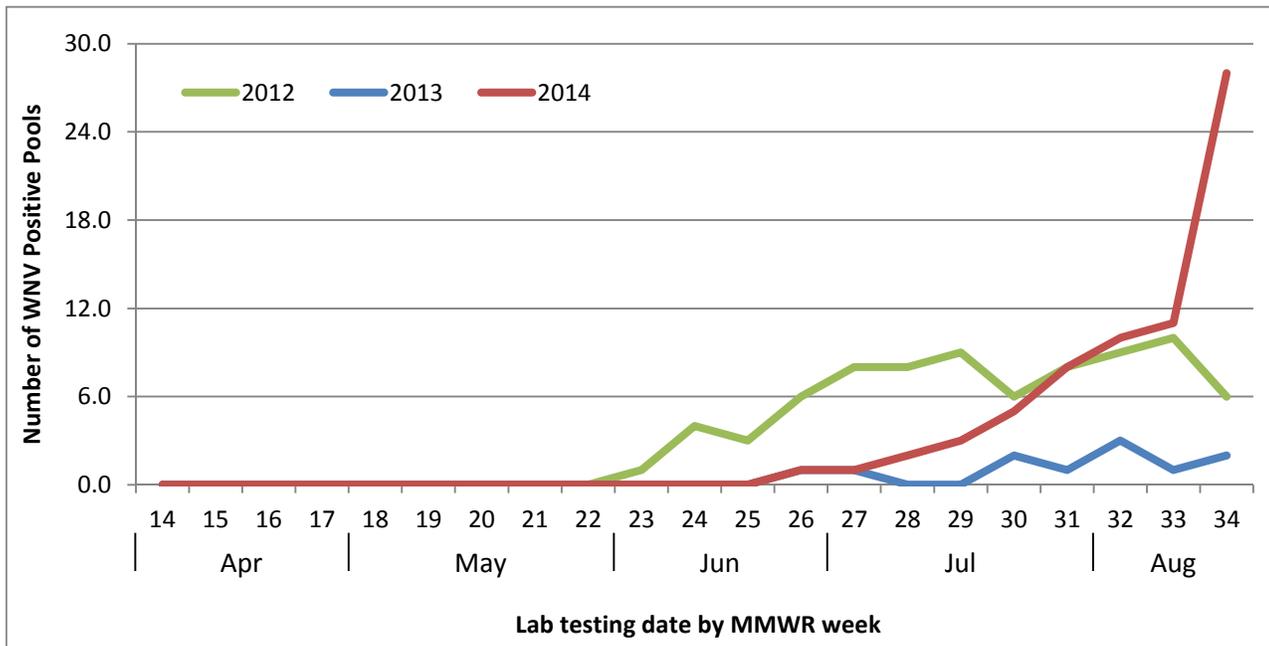
Data source: Tarrant County Public Health

Figure 1. Average number of female *Culex* species per trap, Tarrant County, Weeks 14-34, 2013-2014



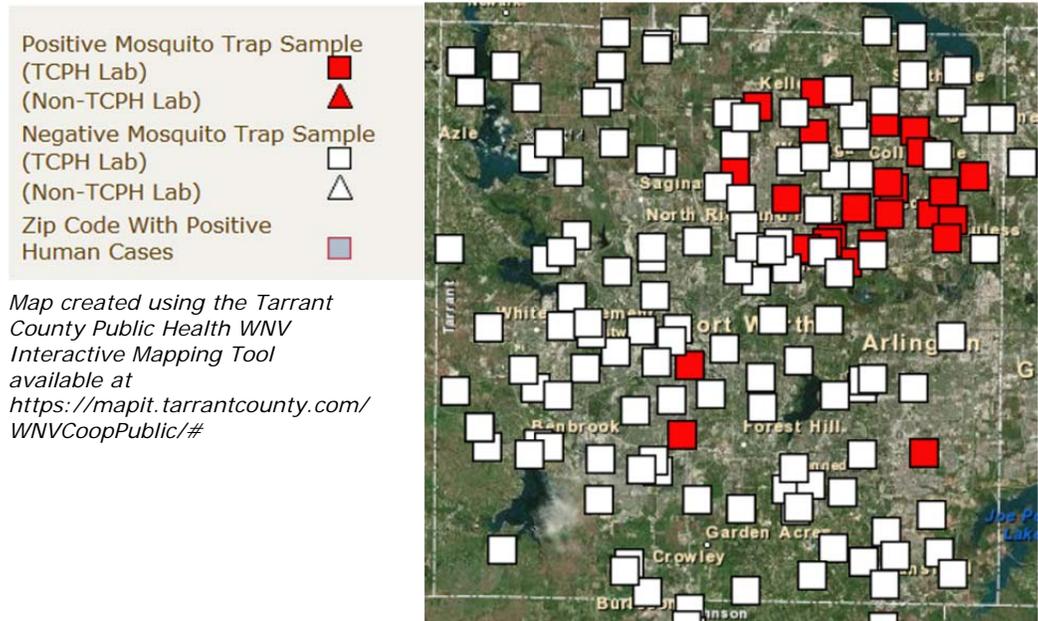
Data source: Tarrant County Public Health

Figure 2. Number of WNV positive mosquito pools by lab testing date, Tarrant County, Weeks 14-34, 2012-2014



Data source: Tarrant County Public Health

Figure 3. Mosquito trap results and human WNV cases, Tarrant County, Week 34, 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/#>

Table 2. State-wide arbovirus activity as reported by Texas DSHS on August 26, 2014

North Texas Counties	WNV		CHIKV		DENV		SLEV	
	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases	Positive Mosquito Pools	Human Cases
Collin	0	0 WNF; 0 WNND	0	1	0	0	0	0
Dallas	37	4 WNF; 1 WNND	0	1	0	0	0	0
Denton	5	0 WNF; 0 WNND	0	0	0	0	0	0
Ellis	0	1 WNF; 0 WNND	0	0	0	0	0	0
Hood	0	0 WNF; 0 WNND	0	0	0	0	0	0
Hunt	0	0 WNF; 0 WNND	0	0	0	0	0	0
Johnson	0	0 WNF; 0 WNND	0	0	0	0	0	0
Kaufman	0	0 WNF; 0 WNND	0	0	0	0	0	0
Parker	0	1 WNF; 0 WNND	0	0	0	0	0	0
Rockwall	0	0 WNF; 0 WNND	0	0	0	0	0	0
Somervell	0	0 WNF; 0 WNND	0	0	0	0	0	0
Tarrant	69	0 WNF; 1 WNND	0	1	0	0	0	0
Wise	0	0 WNF; 0 WNND	0	0	0	0	0	0
North Texas Total	111	6 WNF; 2 WNND	0	3	0	0	0	0
All Texas Counties	1,313	16 WNF; 25 WNND	0	14	0	7	4	0

WNV - West Nile Virus; WNF - West Nile Fever; WNND - West Nile Neuroinvasive Disease; CHIKV - Chikungunya Virus; DENV - Dengue Virus; SLEV - Saint Louis Encephalitis Virus;

Data source: Texas Department of State Health Services