

**Zoonotic Surveillance Update**  
 Week of July 15<sup>th</sup> to July 21<sup>st</sup>, 2007

**Mosquito Surveillance**

**Vector Index (VI) Calculation:**

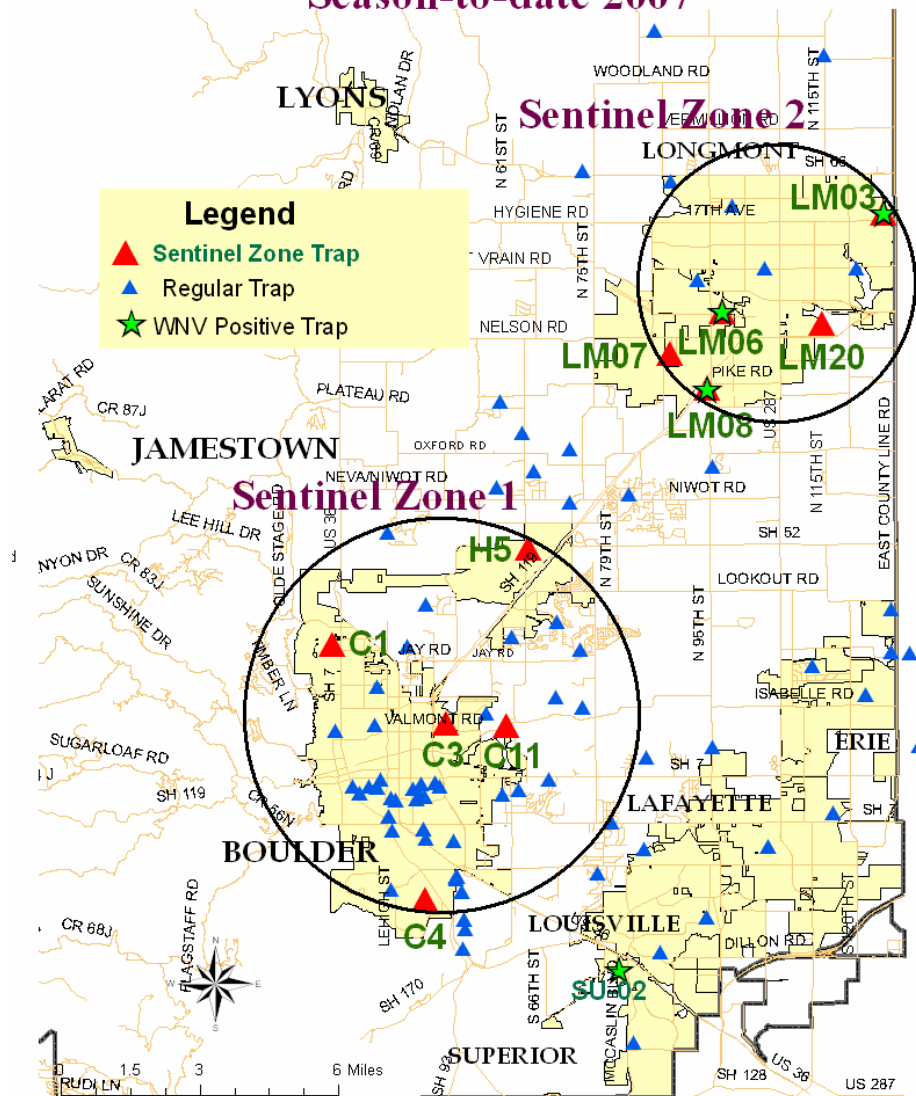
*The Vector Index is the average number of infected mosquitoes collected per trap night per defined area. A value of  $\geq 0.75$  indicates a high level of human risk.*

Longmont Sentinel Traps (BC Zone 2)	<i>C. tarsalis</i> collected on July 9th	<i>C. tarsalis</i> collected on July 11th	<i>C. tarsalis</i> collected on July 16th
Total <i>Culex</i>	1242	679	1426
Average <i>Culex</i>	248.4	135.8	285.2
Infection Rate (per 1000)	4.39	6.58	2.18
<b>Vector Index</b>	<b>1.09</b>	<b>0.89</b>	<b>0.62</b>

**Three *C. tarsalis* pools were positive this week:**

1. LM-03 Caulkins Reservoir/Hamm's Nature Area (2 pools)
2. LM-06 Boulder County Fairgrounds (1 pool)

**Boulder County Positive Trap Locations**  
 Season-to-date 2007

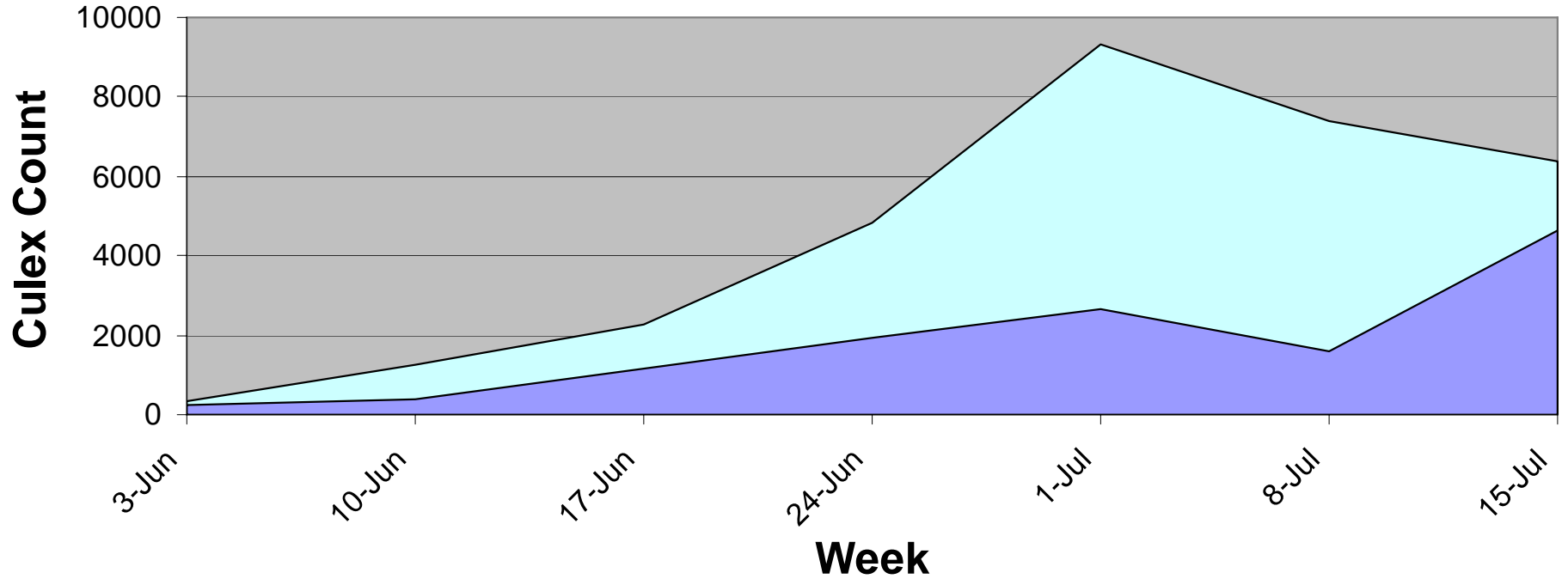


### Boulder County 2007 Mosquito Trap Counts by Week

	Grand Totals	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul
<i>C. pipiens</i>	4394	38	241	210	487	1347	1262	809
<i>C. tarsalis</i>	27291	271	989	2036	4362	7968	6117	5548
Other <i>Culex</i>	142	32	2	10	6	30	33	29
<b>Total <i>Culex</i></b>	<b>31827</b>	<b>341</b>	<b>1232</b>	<b>2256</b>	<b>4855</b>	<b>9345</b>	<b>7412</b>	<b>6386</b>
<i>Culiseta</i>	1188	68	125	130	236	215	226	188
<b>Total Mosquito</b>	<b>67974</b>	<b>2717</b>	<b>8556</b>	<b>8111</b>	<b>11868</b>	<b>14622</b>	<b>11271</b>	<b>10829</b>

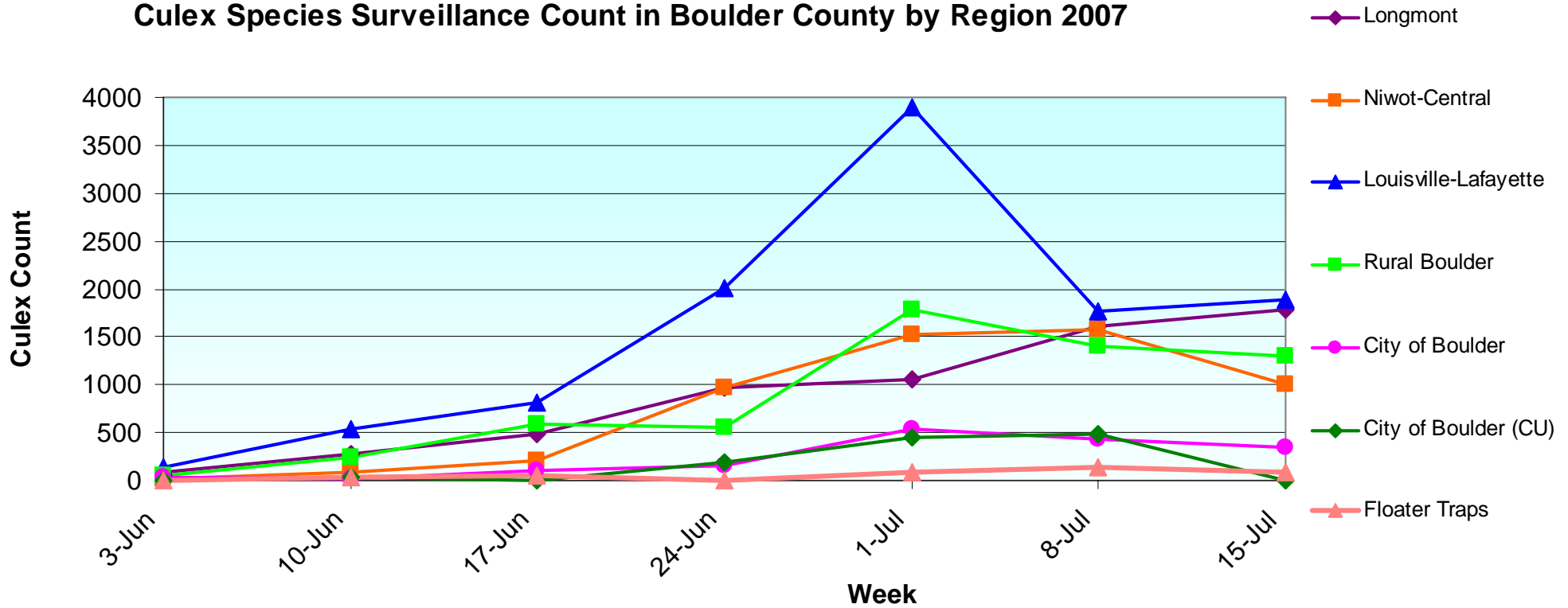
### Comparison of Culex Species Surveillance Count in Boulder County 2006-2007

□ Culex 2007  
■ Culex 2006



Note: Weeks are from 2007. Data from 2006 are for similar weeks

## Culex Species Surveillance Count in Boulder County by Region 2007



- **Longmont Area:** Includes traps for Longmont (10 traps).
- **Niwot and Central Area:** Includes traps for Niwot and Lyons (9 traps).
- **Louisville and Lafayette Area:** Includes traps for Louisville, Lafayette, Superior, and Erie (19 traps).
- **Rural Boulder Area:** Includes traps east of Boulder and sentinel traps including rural areas and Gunbarrel (13 traps).
- **City of Boulder:** Includes traps for the city of Boulder (16 traps).
- **City of Boulder (CU):** Includes traps for the city of Boulder within the CU campus (33 traps).
- **Floater traps:** Includes traps with variable locations throughout Boulder County (up to 10 traps).

**COLORADO HUMAN ZONOSSES SURVEILLANCE OF CONFIRMED AND PROBABLE CASES BY COUNTY 2007**

County	Hantavirus		Bubonic Plague		Tularemia		West Nile Virus	
	Cases	*Deaths	Cases	*Deaths	Cases	*Deaths	Cases	*Deaths
	Adams							
Alamosa	1	1						
Bent								
<b>Boulder</b>					1		1	
Broomfield								
Chaffee								
Cheyenne							1	
Costilla	1	1						
Custer	1	1						
Denver								
Eagle								
Elbert								
El Paso								
Fremont								
Garfield								
Jefferson								
La Plata								
Larimer							1	
Logan							1	
Mesa								
Montrose								
Morgan								
Otero								
Park	2	1						
Prowers								
Pueblo								
Saguache								
Weld	1						1	
Unknown					1			
<b>Grand Totals</b>	<b>6</b>	<b>4</b>			<b>2</b>		<b>5</b>	

\*If data available

Boulder County Animal / Arthropod Zoonotic Surveillance				
Species	Week of July 15 <sup>th</sup> to July 21 <sup>st</sup>		Season Summary	
	Tested	Positive (%)	Total Specimens	Total Positive (%)
<b>Bubonic Plague</b>				
Cat	1		5	
*Flea			13	4 (31%)
Fox				
Dog			1	
Squirrel, tree ( <i>Sicrus niger</i> )			12	
Squirrel, 13 lined ( <i>Spermophilus tridecemlineatus</i> )				
Rabbit			2	
<b>Plague Grand Total</b>	<b>1</b>	<b>0 (0%)</b>	<b>33</b>	<b>4 (12%)</b>
<b>Rabies</b>				
Bat, not speciated			1	
Big brown bat ( <i>Eptesicus fuscus</i> )			31	5 (16%)
California bat ( <i>Myotis californicus</i> )				
Hoary bat ( <i>Lasiurus cinereus</i> )			3	2 (67%)
Little brown bat ( <i>M. lucifugus</i> )				
Long-eared myotis ( <i>M. evotis</i> )				
Myotis species			9	
Silver-haired bat ( <i>Lasionycteris noctivagans</i> )			1	
Western small-footed myotis ( <i>M. ciliolabrum</i> )				
Cat			3	
Dog				
Racoon				
Skunk				
<b>Rabies Grand Total</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>7 (15%)</b>

\* Flea pools tested. One pool could equal 1-234 fleas.

**Boulder County Animal / Arthropod Zoonotic Surveillance**

Species	Week of July 15 <sup>th</sup> to July 21 <sup>st</sup>		Season Summary	
	Tested	Positive (%)	Total Specimens	Total Positive (%)
<b>Tularemia</b>				
Cat	1		5	
Dog			1	
*Flea			13	
Fox				
Prairie Dog				
Squirrel, tree ( <i>Sicrus niger</i> )			12	
Squirrel, 13 lined ( <i>Spermophilus tridecemlineatus</i> )				
Rabbit			2	
<b>Tularemia Grand Total</b>	<b>1</b>	<b>0 (0%)</b>	<b>33</b>	<b>0 (0%)</b>
<b>West Nile Virus</b>				
American Crow			4	<b>1 (%)</b>
Avian Other				
Black-billed Magpie			2	
Blue Jay			2	
** <i>Culex pipiens</i>	2		27	
** <i>Culex tarsalis</i>	28	<b>3 (20%)</b>	170	<b>13 (5%)</b>
** <i>Culex</i> species, other	1		5	
** <i>Culiseta</i> species				
Horse				
Raptor				
Raven, common				
Stellar Jay				
<b>West Nile Grand Total</b>	<b>31</b>	<b>3 (10%)</b>	<b>210</b>	<b>14 (7%)</b>

\* Flea pools tested. One pool could equal 1-234 fleas.

\*\*Mosquito pools tested. One pool could equal 1-60 mosquitoes.