



Adult Trap Data - Detail

Start Date: 06/11/2024 End Date: 06/12/2024

Berthoud

Trap #		Date	Species	Count	Percent		
LC-001	CDC Light Trap	Larimer	Berthoud Park				
		06/11/2024	<i>Aedes dorsalis</i>	3	21.4%		<ul style="list-style-type: none">Aedes-OcAnophelesCulexCulisetaOther
		06/11/2024	<i>Aedes trivittatus</i>	1	7.1%		
		06/11/2024	<i>Aedes vexans</i>	6	42.9%		
		06/11/2024	<i>Anopheles freeborni</i>	1	7.1%		
		06/11/2024	<i>Culex pipiens</i>	1	7.1%		
		06/11/2024	<i>Culex tarsalis</i>	2	14.3%		
			Total	14			

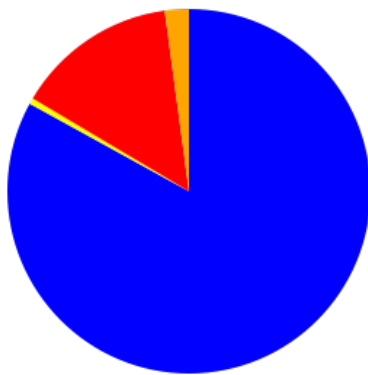
LC-049	CDC Light Trap	Larimer	Berthoud North				
		06/11/2024	<i>Aedes dorsalis</i>	35	53.8%		<ul style="list-style-type: none">Aedes-OcAnophelesCulexCulisetaOther
		06/11/2024	<i>Aedes melanimon</i>	6	9.2%		
		06/11/2024	<i>Aedes vexans</i>	23	35.4%		
		06/11/2024	<i>Culiseta inornata</i>	1	1.5%		
			Total	65			

LC-053	CDC Light Trap	Larimer	Berthoud West				
		06/11/2024	<i>Aedes dorsalis</i>	23	32.4%		<ul style="list-style-type: none">Aedes-OcAnophelesCulexCulisetaOther
		06/11/2024	<i>Aedes increpitus</i>	1	1.4%		
		06/11/2024	<i>Aedes melanimon</i>	9	12.7%		
		06/11/2024	<i>Aedes vexans</i>	24	33.8%		
		06/11/2024	<i>Culex tarsalis</i>	11	15.5%		
		06/11/2024	<i>Culiseta inornata</i>	3	4.2%		
			Total	71			

LC-054	CDC Light Trap	Larimer	Berthoud Point				
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Trap #	Date	Species	Count	Percent		
	06/11/2024	<i>Aedes hendersoni</i>	1	3.2%		<ul style="list-style-type: none"> ■ <i>Aedes-Oc</i> ■ <i>Anopheles</i> ■ <i>Culex</i> ■ <i>Culiseta</i> ■ <i>Other</i>
	06/11/2024	<i>Aedes increpitus</i>	7	22.6%		
	06/11/2024	<i>Aedes vexans</i>	10	32.3%		
	06/11/2024	<i>Culex tarsalis</i>	13	41.9%		
		Total	31			

WC-055	CDC Light Trap	Weld	Berthoud East		
		06/11/2024	<i>Aedes dorsalis</i>	3	42.9%
		06/11/2024	<i>Aedes vexans</i>	4	57.1%
			Total	7	



		TOTAL	%
■	<i>Aedes-Oc</i>	156	83.0%
■	<i>Anopheles</i>	1	0.5%
■	<i>Culex</i>	27	14.4%
■	<i>Culiseta</i>	4	2.1%
■	<i>Other</i>	0	0.0%

D. Reporting templates

Based on the need to now report data not only for FC citywide but also separately for each of the four zones (NW, NE, SE, SW; broken down using College and Drake) the city has been divided into for the purpose of WNV surveillance and mosquito control, CSU had to generate a new reporting template. This new reporting template is tailored to provide data relevant to the Level III and IV entomological triggers (see below) for control measures in the “City of Fort Collins Program Response Guidelines to Mosquito Borne Arboviral Activity (July 2008 edition)”.

Level III

- Vector index > 0.5 and increasing
- *Culex* mosquito populations increasing and at or above historical average for that time period
- Mosquito infection rates of > 3.0 per thousand (0.3%) and increasing

Level IV

- Vector index > 0.75.
- *Culex* mosquito population above historical average for that time period
- Sustained mosquito infection rates of > 5.0 per thousand (0.5%)

The new reporting format comprises a set of 6 tables to address the current week (1a, 2a, 3a) and to provide seasonal and historical context (1b, 2b, 3b) (see full table formats on following pages)

- Table 1a. Vector Index for current week
- Table 1b. Vector Index for All *Culex* by week from June-August
- Table 2a. Vector abundance for current week
- Table 2b. Vector abundance for All *Culex* by week from June-August
- Table 3a. WNV infection rate per 1,000 females for current week
- Table 3b. WNV infection rate per 1,000 females for All *Culex* by week from June-August

Table 1a. Vector Index for current week

Week: 24	Mean abundance of females per trap night ¹		Estimate for proportion of females infected with WNV ²		Vector Index		
	<i>Cx.</i> <i>pipiens</i>	<i>Cx. tarsalis</i>	<i>Cx.</i> <i>pipiens</i>	<i>Cx.</i> <i>tarsalis</i>	<i>Cx.</i> <i>pipiens</i> ³	<i>Cx.</i> <i>tarsalis</i> ⁴	All <i>Culex</i> ⁵
FC – Zone NW	1.80	1.80	0.0000	0.0000	0.0000	0.0000	0.000
FC – Zone NE	0.20	3.00	0.0000	0.0000	0.0000	0.0000	0.000
FC – Zone SE	0.50	3.60	0.0000	0.0000	0.0000	0.0000	0.000
FC – Zone SW	1.00	1.60	0.0000	0.0000	0.0000	0.0000	0.000
FC – Citywide	0.88	2.50	0.0000	0.0000	0.0000	0.0000	0.000
LV	0.2	7.8	0.0	0.0	0.0	0.0	0.000
BE	0.3	8.7	0.0	0.0	0.0	0.0	0.000
BC							

¹From Table 2a (CDC light trap catches only).

²Derived from the data presented in Table 3a for estimated infection rate per 1,000 females (CDC light trap and gravid trap catches combined).

³Vector Index for *Cx. pipiens* = (Mean abundance of *Cx. pipiens* females per trap night) x (Estimate for proportion of all *Cx. pipiens* females infected with WNV).

⁴Vector Index for *Cx. tarsalis* = (Mean abundance of *Cx. tarsalis* females per trap night) x (Estimate for proportion of all *Cx. tarsalis* females infected with WNV).

⁵Vector Index for All *Culex* = (Vector Index for *Cx. pipiens*) + (Vector Index for *Cx. tarsalis*).

Table 1b. Vector Index for All *Culex* by week from June-August

Week	FC – Zone NW		FC – Zone NE		FC – Zone SE		FC – Zone SW		FC – Citywide		LV	BE	BC
	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹			
23	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	N/A
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
25		0.00		0.01		0.00		0.00		0.00			
26		0.00		0.01		0.01		0.01		0.01			
27		0.00		0.02		0.01		0.00		0.01			
28		0.00		0.03		0.10		0.01		0.04			
29		0.08		0.09		0.24		0.03		0.12			
30		0.08		0.14		0.26		0.07		0.15			
31		0.14		0.17		0.23		0.08		0.18			
32		0.16		0.26		0.32		0.14		0.23			
33		0.14		0.41		0.26		0.10		0.24			
34		0.13		0.20		0.28		0.07		0.19			
35		0.06		0.19		0.25		0.11		0.17			
36		0.03		0.08		0.05		0.02		0.05			
37		0.03		0.11		0.03		0.00		0.04			

¹ The historical average for Week 23 is calculated from 2006-2014 data. The historical average for Week 24 uses 2006-2020 historical data. The historical average for Week 25-35 uses 2006-2022 historical data. Week 36 historical average is calculated from 2015-2022 data (2015 is the first year to have surveillance data collected into weeks 36 & 37). Week 37 historical average is calculated from 2015-2016 and 2018-2019 data. 2003-2005 surveillance data were excluded due to changes in trap locations from 2006 onwards.

Table 2a. Vector abundance for current week (CDC light trap catches only)

Week: 23	Total number females collected			Number CDC light trap nights	Mean abundance of females per CDC light trap night		
	Cx. <i>pipiens</i>	Cx. <i>tarsalis</i>	All <i>Culex</i>		Cx. <i>pipiens</i> ¹	Cx. <i>tarsalis</i> ²	All <i>Culex</i> ³
FC – Zone NW	7	7	14	4	1.75	1.75	3.50
FC – Zone NE	1	18	19	6	0.17	3.00	3.17
FC – Zone SE	4	29	33	8	0.50	3.63	4.13
FC – Zone SW	5	8	13	5	1.00	1.60	2.60
FC – Citywide	17	62	79	23	0.74	2.70	3.43
LV	0	53	53	4	0.0	8.8	13.25
BE	1	5	6	3	0.3	1.7	2.00
BC	N/A	N/A	N/A	N/A	N/A	N/A	N/A

¹Mean abundance of *Cx. pipiens* females per CDC light trap night = (Total number *Cx. pipiens* females collected) / (Number CDC light trap nights).

²Mean abundance of *Cx. tarsalis* females per CDC light trap night = (Total number *Cx. tarsalis* females collected) / (Number CDC light trap nights).

³Mean abundance of All *Culex* females per CDC light trap night = (Total number All *Culex* females collected) / (Number CDC light trap nights).

Table 2b. Vector abundance for All *Culex* by week from June-August

Week	FC – Zone NW		FC – Zone NE		FC – Zone SE		FC – Zone SW		FC – Citywide		LV	BE	BC
	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹			
23	3.50	5.70	3.17	6.90	4.13	6.40	2.60	6.80	3.43	6.45	8.80	2.00	NA
24	1.80	6.40	1.60	6.20	2.05	7.70	1.30	5.80	1.69	6.53	4.00	4.50	NA
25		9.90		13.50		20.30		6.50		12.55			
26		43.00		46.90		65.70		35.30		47.73			
27		29.20		83.50		117.40		19.30		62.35			
28		67.90		101.20		164.30		78.20		102.90			
29		96.70		176.60		160.00		76.80		127.53			
30		49.20		133.60		93.10		53.10		82.25			
31		35.70		98.90		93.40		24.20		63.05			
32		29.80		101.30		56.70		37.20		56.25			
33		27.10		78.30		55.10		29.80		47.58			
34		29.00		86.10		41.20		28.20		46.13			
35		16.20		43.40		29.30		13.30		25.55			
36		13.20		53.10		23.10		7.70		24.28			
37		4.90		64.60		18.00		5.70		23.30			

¹ The historical average for Week 23 is calculated from 2006-2014 data. The historical average for Week 24 uses 2006-2020 historical data. The historical average for Week 25-35 uses 2006-2022 historical data. Week 36 historical average is calculated from 2015-2022 data (2015 is the first year to have surveillance data collected into weeks 36 & 37). Week 37 historical average is calculated from 2015-2016 and 2018-2019 data. 2003-2005 surveillance data were excluded due to changes in trap locations from 2006 onwards

Table 3a. WNV infection rate per 1,000 females for current week (CDC light trap and gravid trap catches combined)

Week: 23	Total number individuals examined			Total number pools examined			Total number WNV-infected pools			Estimate for WNV infection rate per 1,000 females ¹		
	Cx. <i>pipiens</i>	Cx. <i>tarsalis</i>	All <i>Culex</i>	Cx. <i>pipiens</i>	Cx. <i>tarsalis</i>	All <i>Culex</i>	Cx. <i>pipiens</i>	Cx. <i>tarsalis</i>	All <i>Culex</i>	Cx. <i>pipiens</i>	Cx. <i>tarsalis</i>	All <i>Culex</i>
FC – Zone NW	7	7	14	3	3	6	0	0	0	0.000 0	0.000 0	0
FC – Zone NE	1	18	19	1	6	7	0	0	0	0.000 0	0.000 0	0
FC – Zone SE	4	29	33	2	8	10	0	0	0	0.000 0	0.000 0	0
FC – Zone SW	5	8	13	2	5	7	0	0	0	0.000 0	0.000 0	0
FC – Citywide	17	62	79	8	22	30	0	0	0	0.000 0	0.000 0	0
LV												
BE												
BC												

¹Maximum likelihood estimate (MLE) for WNV infection rate per 1,000 females calculated using the CDC PooledInfRate 4.0 plug-in for Excel.

Table 3b. WNV infection rate per 1,000 females for All *Culex* by week from June-August

Week	FC – Zone NW		FC – Zone NE		FC – Zone SE		FC – Zone SW		FC – Citywide		LV	BE	BC
	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹	Current year	Historical average ¹			
23	0.00	0.00	0.00	0.00	0.00	1.60	0.00	0.00	0.00	0.40	0.00	0.00	N/A
24	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.21	0.00	0.00	NA
25		0.00		0.00		0.00		0.00		0.00			
26		0.00		0.00		0.28		0.00		0.07			
27		0.00		0.00		0.28		0.00		0.07			
28		0.30		0.20		0.76		1.20		0.61			
29		1.90		1.40		2.10		2.20		1.90			
30		1.20		1.40		3.47		3.30		2.34			
31		4.00		0.90		4.77		5.40		3.77			
32		6.30		2.20		6.86		7.00		5.59			
33		5.80		5.60		9.37		7.90		7.17			

34		6.20		4.10		10.38		10.30		7.74			
35		7.00		6.70		14.70		10.00		9.60			
36		5.60		2.10		3.55		5.10		4.09			
37		0.00		3.50		3.56		0.00		1.77			

¹ The historical average for Week 23 is calculated from 2006-2014 data. The historical average for Week 24 uses 2006-2020 historical data. The historical average for Week 25-35 uses 2006-2022 historical data. Week 36 historical average is calculated from 2015-2022 data (2015 is the first year to have surveillance data collected into weeks 36 & 37). Week 37 historical average is calculated from 2015-2016 and 2018-2019 data. 2003-2005 surveillance data were excluded due to changes in trap locations from 2006 onwards.