



TOWN OF BERTHOUD

JULY 2018 MONTHLY REPORT

AUGUST 6TH, 2018

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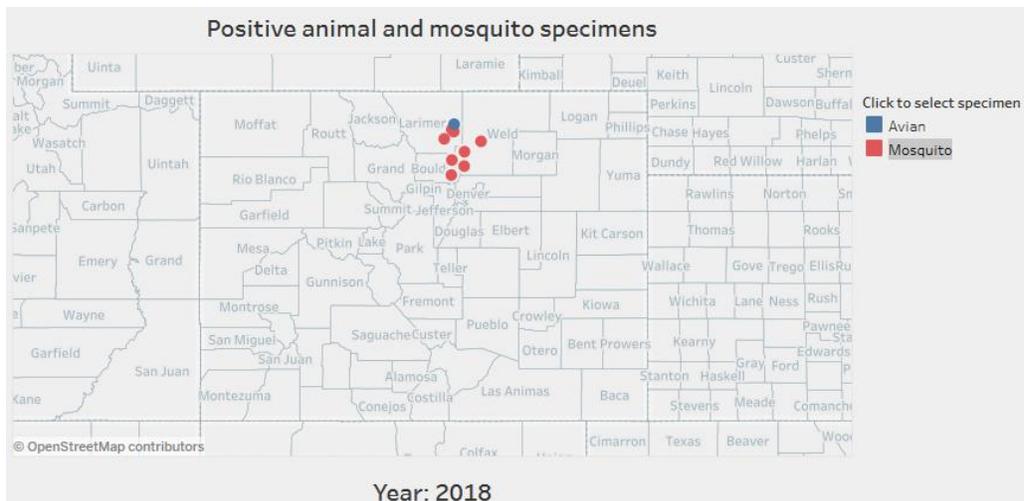
West Nile Virus Risk

As of July 24, 2018, a total of 36 states have reported West Nile virus infections in people, birds, or mosquitoes in 2018. Overall, 39 cases of West Nile virus disease in people have been reported to CDC. Of these, 23 (59%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 16 (41%) were classified as non-neuroinvasive disease.

West Nile virus was detected in both birds and mosquitoes collected from Larimer County during the second week of July and while viral activity is on the rise, and spreading to new areas, the overall Vector Index for all zones within Fort Collins and Loveland remains relatively low when compared to historical averages. To date no human cases of West Nile virus have been reported from Larimer County. There has been only one reported case of people contracting the disease within the state of Colorado this year. In 2017 the Centers for Disease Control (CDC) reported 68 reported human cases of West Nile virus in Colorado which included four deaths. In 2016 Colorado reported 149 reported human cases of which eight were fatal.

These numbers are guaranteed to increase according to the Colorado Department of Public Health and Environment, as the majority of West Nile virus cases in humans are identified in August and September, during the season's peak.

During the month of July 2018 Colorado State University tested 512 sample pools of mosquitoes collected from traps set in Larimer County. Sixteen (16) of these samples have tested positive for West Nile virus relative to 15 this time last year. Twelve (12) of positive mosquito pools were collected in Fort Collins, 2 were collected in Loveland and 2 were collected in Berthoud. Of the positive mosquito pool samples, 7 samples contained *Culex tarsalis* collected in light traps, 7 contained *Culex pipiens* collected in gravid traps, and 2 contained *Culex pipiens* collected in light traps.



(CDPHE image taken from <https://www.colorado.gov/pacific/cdphe/west-nile-virus-data>)

Wear Your Repellent!

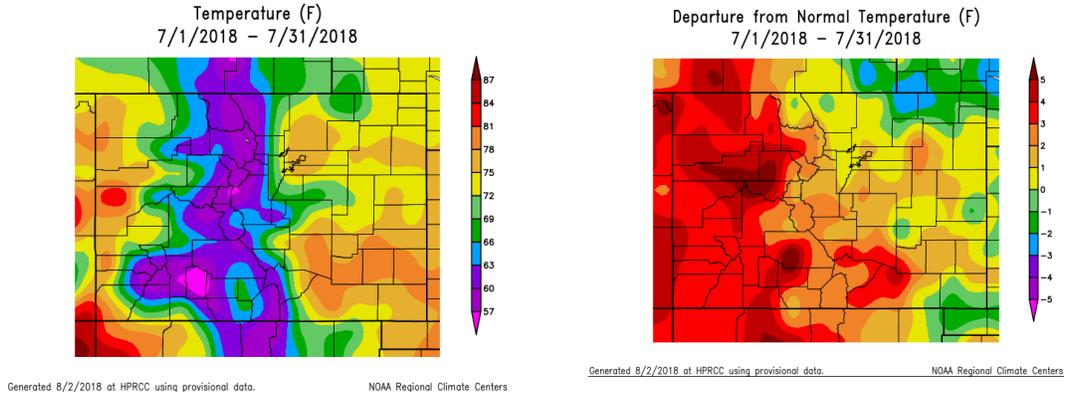
Use approved mosquito repellents containing DEET, picaridin or oil of lemon eucalyptus.

DEET products generally provide the longest protection. The other repellents work but must be applied more frequently.

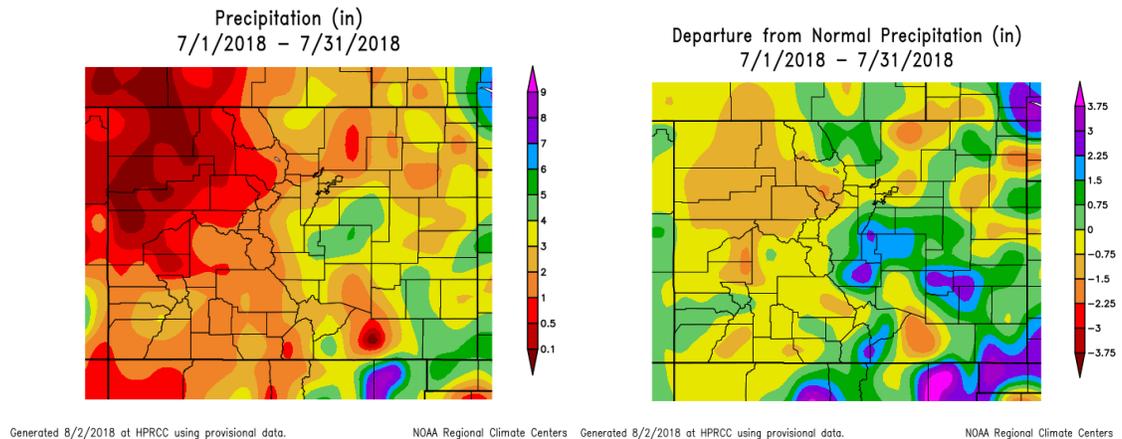
Follow the product label for correct use. Products with 10 percent or less DEET are recommended for children.

Weather

Temperatures throughout Larimer County were only slightly above average during the month of July 2018. Warm temperatures kept larval production at a steady pace during the month of July and overall larval counts and product application totals were comparable but slightly below average.



The average temperature within the Town of Berthoud during the month of July 2018 was 75°F with a high of 90°F and low of 59°F. Monsoon rains and hail storms were common during the month of July 2018 and lead to higher than average precipitation with 0.39 inches on record. By comparison we had only 0.2 inches of precipitation on record in 2017. Heavy rains in conjunction with high winds and stormy weather lead to clogged drain, stagnant ditches and increased larval habitats.



Larval Control Operations

VDCI field technicians performed 112 site inspections in the month of July 2018 as part of the Town of Berthoud's inspection and larviciding program. Of those 112 site inspections, 99 sites (88.4%) were wet and 66 sites were producing mosquito larvae (65.7% of the wet sites). A total of 76.4 acres were treated with 336.2 lbs. of Vectobac (*Bti*) and 5.2 gallons of BVA Mineral Oil to prevent mosquito larvae from emerging as adults.

VDCI field technicians performed 113 site inspections in the month of July 2017 as part of the Town of Berthoud's inspection and larviciding program. Of those 113 site inspections, 104 sites (92%) were wet and 78 sites were producing mosquito larvae (75% of the wet sites). A total of 41.4 acres were treated with 391.5 lbs. of Vectobac (*Bti*) and 0.6 gallons of BVA Mineral Oil to prevent mosquito larvae from emerging as adults.

Mosquito Population Surveillance

VDCI set four traps weekly in the Town of Berthoud: Berthoud Park (LC-001), Berthoud North on Bunyan Ave (LC-049), Berthoud West (LC-053) and Berthoud Pointe (LC-054) to monitor mosquito abundance within Berthoud during July 2018. There were a total of 16 traps set, which collected a total of 4,593 mosquitoes. The species composition of mosquito collected included 2,615 (57%) *Aedes* spp., 3 (<1%) *Culiseta* spp., 1,975 (43%) *Culex* spp.

Week	BE
24	0.00
25	0.25
26	0.00
27	0.23
28	0.85
29	0.47
30	0.00
31	
32	
33	

Vector Disease Control International				Adult Trap Data - Genus Summary						
Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LC-001	LIGHT	Larimer	07/03/2018	Berthoud	113	0	121	0	0	234
LC-001	LIGHT	Larimer	07/11/2018	Berthoud	105	0	198	1	0	304
LC-001	LIGHT	Larimer	07/18/2018	Berthoud	177	0	137	0	0	314
LC-001	LIGHT	Larimer	07/25/2018	Berthoud	131	0	99	0	0	230
LC-049	LIGHT	Larimer	07/03/2018	Berthoud North of	355	0	37	0	0	392
LC-049	LIGHT	Larimer	07/11/2018	Berthoud North of	54	0	66	0	0	120
LC-049	LIGHT	Larimer	07/18/2018	Berthoud North of	25	0	10	0	0	35
LC-049	LIGHT	Larimer	07/25/2018	Berthoud North of	28	0	43	0	0	71
LC-053	LIGHT	Larimer	07/03/2018	Berthoud West	165	0	111	0	0	276
LC-053	LIGHT	Larimer	07/11/2018	Berthoud West	240	0	341	2	0	583
LC-053	LIGHT	Larimer	07/18/2018	Berthoud West	36	0	29	0	0	65
LC-053	LIGHT	Larimer	07/25/2018	Berthoud West	57	0	24	0	0	81
LC-054	LIGHT	Larimer	07/03/2018	Berthoud Pointe	425	0	96	0	0	521
LC-054	LIGHT	Larimer	07/11/2018	Berthoud Pointe	357	0	468	0	0	825
LC-054	LIGHT	Larimer	07/18/2018	Berthoud Pointe	50	0	28	0	0	78
LC-054	LIGHT	Larimer	07/25/2018	Berthoud Pointe	297	0	167	0	0	464
					2,615		1,975	0		
						0	3			4,593
					TOTAL		%			
					2,615		1,975			57%
					0		0			0%
					1,975		3			43%
					0		0			0%
					0		0			0%

Species	Count	Percentage
Aedes-Oc	2,615	57%
Anopheles	0	0%
Culex	1,975	43%
Culiseta	3	0%
Other	0	0%

Adult Mosquito Control Operations

The Town of Berthoud has not, and does not, have any plans for adult mosquito control operations in 2018.

Public Relations

VDCI received two phone calls from residents of Berthoud inquiring about adult mosquito control threshold during the month of July 2018. Information about the town's policy was provided.