



CITY OF FORT COLLINS

JUNE 2018 MONTHLY REPORT

JULY 1ST, 2018

West Nile Virus Risk

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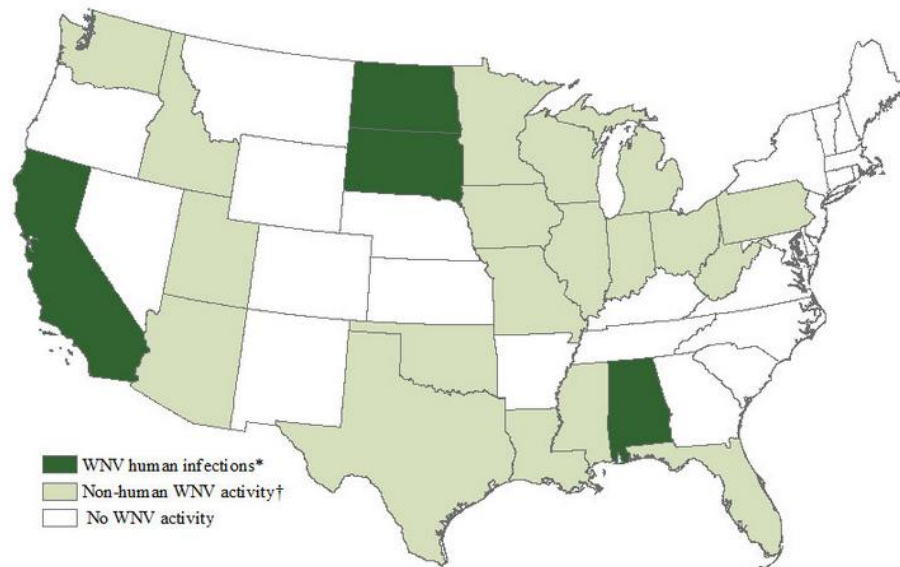
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Both the Colorado Department of Public Health & Environment (CDPHE) and Colorado State University began testing mosquito samples in Disease Week 24 (June 10th). As of July 1st there have been no reports of West Nile virus positive mosquitoes in the state of Colorado.

The Centers for Disease Control and Prevention currently reports human West Nile virus infections in California, North Dakota, South Dakota and Alabama. Non-human West Nile virus activity (mosquitoes, birds or sentinel animals) has been reported from Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Washington, West Virginia, and Wisconsin. While West Nile virus activity remains relatively low, and we have not documented viral activity in Northern Colorado, we are likely to see increased disease risk as the summer progresses and encourage personal protective measures including draining water from your property, avoiding the outdoors at dawn and dusk, defending yourself by wearing repellent and dressing appropriately.

West Nile Virus Activity by State - United States, 2018 (as of June 26, 2018)



In June 2018 Colorado State University (CSU) tested a total of 227 mosquito samples containing 3,073 mosquitoes. These samples consisted of 2,508 *Cx. tarsalis* and 565 *Cx. Papiens* collected from the Fort Collins, Loveland and Berthoud areas. 93 mosquito pool samples were submitted to CSU's infectious disease laboratory on Thursday June 28th with WNV positive results pending.

By comparison, in June of 2017 Colorado State University (CSU) tested a total of 208 mosquito samples containing 2,125 *Cx. tarsalis* and 470 *Cx. Papiens*. In 2016 CSU tested a total of 217 sample pools of mosquitoes containing 1,605 *Cx. tarsalis* mosquitoes, 681 *Cx. pipiens* mosquitoes, 4 *Cx. spp* mosquitoes.

Weather

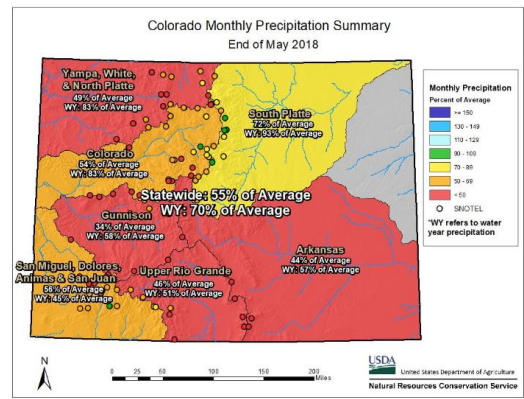
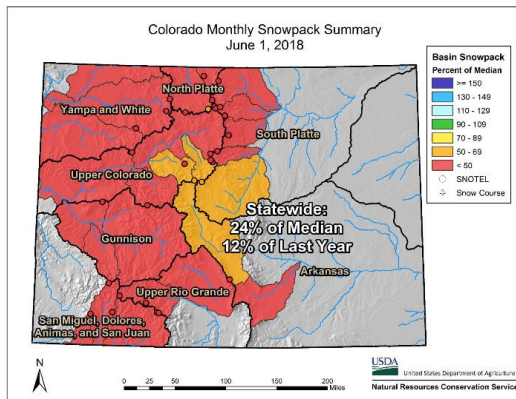
Wear Your Repellent!

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

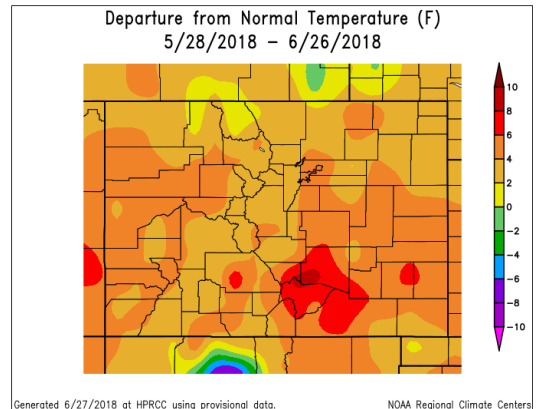
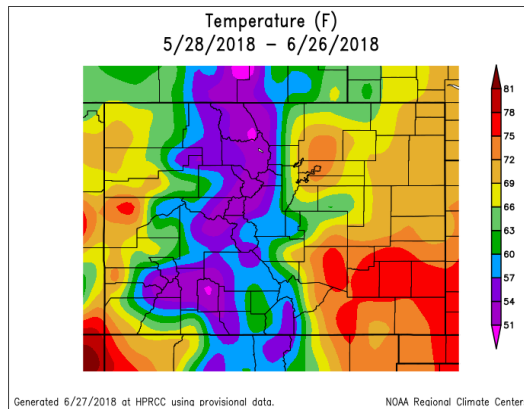
DEET products generally provide the longest protection. The other repellents work but must be applied more frequently.

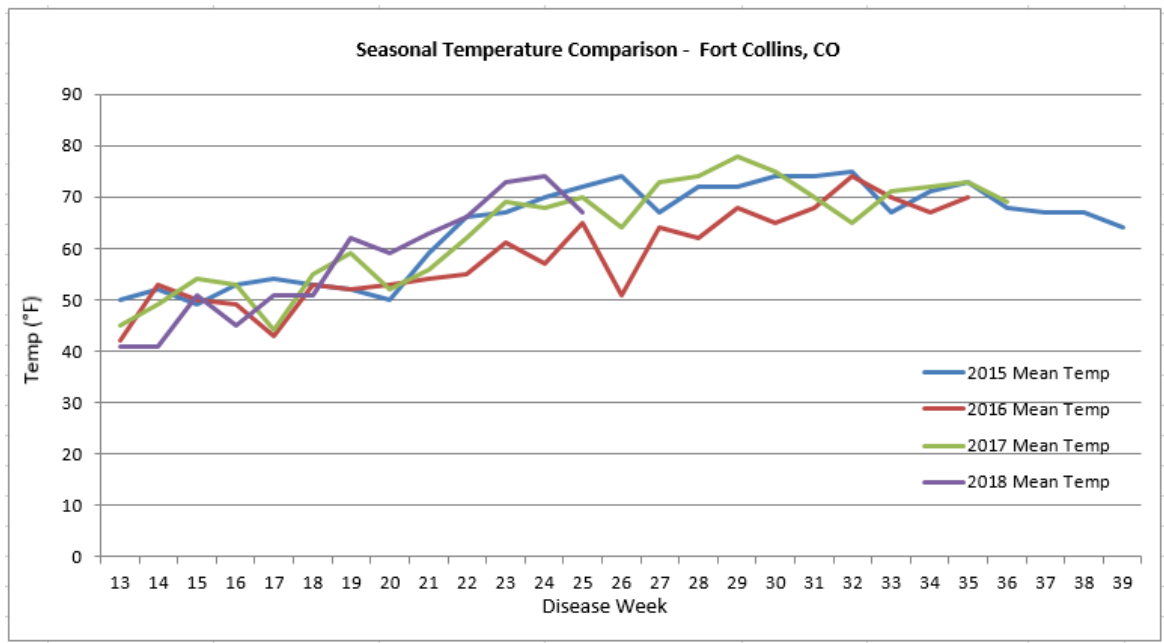
Follow the product label for correct use. Products with 10 percent or less DEET are recommended for children.

VDCI began field inspections throughout Northern Colorado in mid-April while the majority of larval production habitats were still dry. Snowmelt across Colorado's mountains accelerated rapidly during May as a result of the predominantly warm and dry weather conditions throughout the state (Colorado Water Supply Outlook Report, United States Department of Agriculture, June 2018). Snowpack levels were far below average across most of the state and as of June 1st there were only a handful of SNOTEL sites still reporting the presence of snow. While the South Platte Region, which encompasses Larimer County, reached close to normal snowpack levels the peaks melted earlier than normal by almost two weeks causing an increase in floodwater mosquito populations. As of June 1st monthly precipitation in every major water shed was far below normal with the South Platte River reaching only 72% of its monthly average. *Culex* obtained from larval sites has remained low as a percentage of all mosquitoes collected. In the early season months VDCI field technicians have focused larval site inspections on larger water bodies and mandatory sites known to produce larvae early season.



According to the High Plains Regional Climate Center the average temperature in Larimer County was 70.1 °F during the month of June which is approximately 4 degrees above average. While temperatures were higher on average throughout most of the county we did experience significant cooling and severe thunderstorms/hail in Week 25 leading to a temporary reduction in mosquito trap counts.





Larval Control Operations

VDCI field technicians performed 2,573 site inspections as part of the inspection and larviciding program in June 2018. Of the 2,573 inspections, 2,068 sites were wet (80%) and 1,294 sites were producing mosquito larvae (56% of the wet sites). Of the 812.9 acres treated in June 2018, 4,351 lbs. of VectoBac (*Bti*), 83 VectoLex (*Bsph*) Water Soluble Packets, 4 lbs Altosid (Methoprene) and 113.9 gallons of BVA mosquito larviciding oil were applied.

VDCI field technicians performed 2,812 site inspections as part of the inspection and larviciding program in June 2017. Of the 2,133 inspections, 2,361 sites were wet (84%) and 1,193 sites were producing mosquito larvae (47.4% of the wet sites). Of the 535.2 acres treated in June 2017, 2,888 lbs. of VectoBac (*Bti*), 655 VectoLex (*Bsph*) Water Soluble Packets, 275 Altosid briquettes (Methoprene) and 37.4 gallons of BVA mosquito larviciding oil were applied.



VDCI's backyard technician performed 151 site inspections as a part of the Fort Collins backyard program in June 2018. Of the 151 inspections, 129 sites (85.4%) were wet and 109 were producing or had the potential to produce mosquito larvae and were treated with 76.1 VectoLex WSP (*Bsph*), 2 lbs altosid (methoprene) and 11.3 gallons BVA Mineral Oil.

During June 2017, VDCI technicians performed site inspections at 47 storm drain grids as part of the City of Fort Collins Urban larviciding program to control larval mosquito populations in storm drains and catch basins. Drains that were wet or had the potential to hold water were treated with long term larvicide products including Altosid pellets and VectoLex WSP (*Bsph*).

Mosquito Population Surveillance

There were 210 light traps set in Fort Collins the month of June 2018. Of the 210 light traps set; a total of 26,330 mosquitoes were collected. There were 23,101 (87%) *Aedes spp.*, 241 (<1%) *Culiseta spp.*, 2,802 (10.6%) *Culex spp.*, and 182 (1%) other mosquitoes collected. There was an average of 125 mosquitoes per trap night and 13 *Culex spp.* mosquitoes per trap night collected in Fort Collins during June 2018.

There were 221 light traps set in Fort Collins the month of June 2017. Of the 234 light traps set; a total of 32,340 mosquitoes were collected. There were 30,096 (93.1%) *Aedes spp.*, 287 (0.9%) *Culiseta spp.*, 1,778 (5.5%) *Culex spp.*, and 179 (<1%) other mosquitoes collected. There was an average of 146 mosquitoes per trap night and 8 *Culex spp.* mosquitoes per trap night collected in Fort Collins during June 2017.

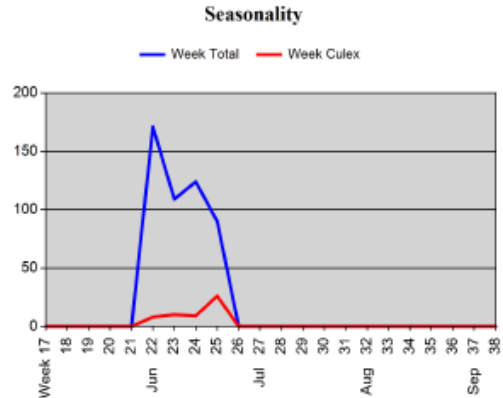
There were 234 light traps set in Fort Collins the month of June 2016. Of the 234 light traps set; a total of 14,929 mosquitoes were collected. There were 12,981 (87%) *Aedes spp.*, 231 (1.5%) *Culiseta spp.*, 1617 (10.8%) *Culex spp.*, and 96 (<1%) other mosquitoes collected. There was an average of 64 mosquitoes per trap night and 7 *Culex spp.* mosquitoes per trap night collected in Fort Collins during June 2016.

2018 Fort Collins CDC Trap Composite Data

Total number of trap/night: set:	210
Total number of mosquitoes collected:	26,330
Average mosquitoes per trap/night:	125
Average Culex per trap/night:	13

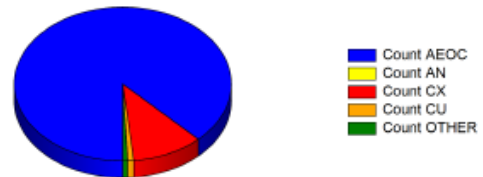
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	534	2.0%
<i>Aedes (Oc.) inaequalis</i>	294	1.1%
<i>Aedes (Oc.) melanimon</i>	223	0.8%
<i>Aedes (Oc.) nigromaculis</i>	1	0.0%
<i>Aedes (Oc.) trivittatus</i>	13	0.0%
<i>Aedes vexans</i>	22034	83.7%
<i>Aedes/Ochlerotatus spp</i>	3	0.0%
<i>Anopheles spp</i>	3	0.0%
<i>Coquillettidia perturbans</i>	182	0.7%
<i>Culex pipiens</i>	640	2.4%
<i>Culex tarsalis</i>	2162	8.2%
<i>Culiseta incidens</i>	1	0.0%
<i>Culiseta inornata</i>	240	0.9%



Genus proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	23,102	87.7%
<i>Anopheles</i>	3	0.0%
<i>Culex</i>	2,802	10.6%
<i>Culiseta</i>	241	0.9%
Other	182	0.7%



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There were 39 gravid traps set in Fort Collins during the month of June 2018. Gravid traps set in the City of Fort Collins collected 518 total mosquitoes. There were 30 (5.8%) *Aedes spp.*, 3 (<1%) *Culiseta inornata*, and 485 (93.6%) *Culex spp.*

There were 158 light traps set in the City of Loveland during June 2018. Mosquito surveillance traps set during June 2018 in Loveland collected a total of 10,026 mosquitoes. Of these there were 10,026 (81%) *Aedes spp.*, 131 (1%) *Culiseta spp.*, 8 (<1%) *Anopheles spp.*, 11 (<1%) *Coquillettidia spp.* and 2,182 (17%) *Culex spp.* mosquitoes collected. There was an average of 78 mosquitoes collected per trap night and 14 *Culex spp.* mosquitoes per trap night during June 2018 in the City of Loveland.

There were 11 gravid traps set during the month of June 2018 in the City of Loveland. Gravid traps set in the City of Loveland collected 136 total mosquitoes. There was 19 (14%) *Aedes spp.* and 117 (86%) *Culex spp.* mosquitoes collected from gravid traps.

Adult Mosquito Control Operations

There have been no adult mosquito control operations performed by the City of Fort Collins to date. The City of Fort Collins has not budgeted money for adult mosquito control in 2018.

VDCI has been privately contracted to perform adult mosquito control for Greenstone HOA, Willow Springs HOA, Paragon Pointe HOA, Ridgewood Hills and Lindenwood HOA during the 2018 season. A total of 19 road miles within these neighborhoods were sprayed via ground based vehicles with Ultra Low Volume (ULV) AquaKontrol mosquito adulticides to reduce adult mosquito populations on the dates listed below.

Vector Disease Control International		Adulticide Data				
Customer	Subdiv/Area	Material	Start Time	End Time	Miles	
Ridgewood Hill: HOA						
Truck						
06/06/2018	RIDGEWOOD HILLS HOA	Aqua Kontrol 30 30	21:02:00	21:35:00	7.0	
Truck					Sum	7.0
					Avg	7.0
					Min	7.0
					Max	7.0
Greenstone HOA						
Truck						
06/06/2018	GREENSTONE	Aqua Kontrol 30 30	20:32:00	20:52:00	3.0	
Truck					Sum	3.0
					Avg	3.0
					Min	3.0
					Max	3.0
Paragon Estates HOA						
Truck						
06/20/2018	PARAGON	Aqua Kontrol 30 30	21:30:00	21:49:00	4.0	
Truck					Sum	4.0
					Avg	4.0
					Min	4.0
					Max	4.0
Willow Springs HOA						
Truck						
06/27/2018	WILLOW SPRINGS	Aqua Kontrol 30 30	20:34:00	20:59:00	5.0	
Truck					Sum	5.0
					Avg	5.0
					Min	5.0
					Max	5.0
					Grand Total	19.0

Public Relations

VDCI received 8 phone calls from the residents of Fort Collins during the month of June 2018. There was 1 new larval mosquito production site reported. This site was inspected and treated due to larval production or potential larval production. VDCI received 3 calls from residents requesting information about the Fort Collins Backyard inspection program. There were 3 residents requesting to be added to the call notification program and they were directed to the City of Fort Collins websites (www.fcgov.com/westnile). There was one business opt out call and inspection in the month of June 2018.

