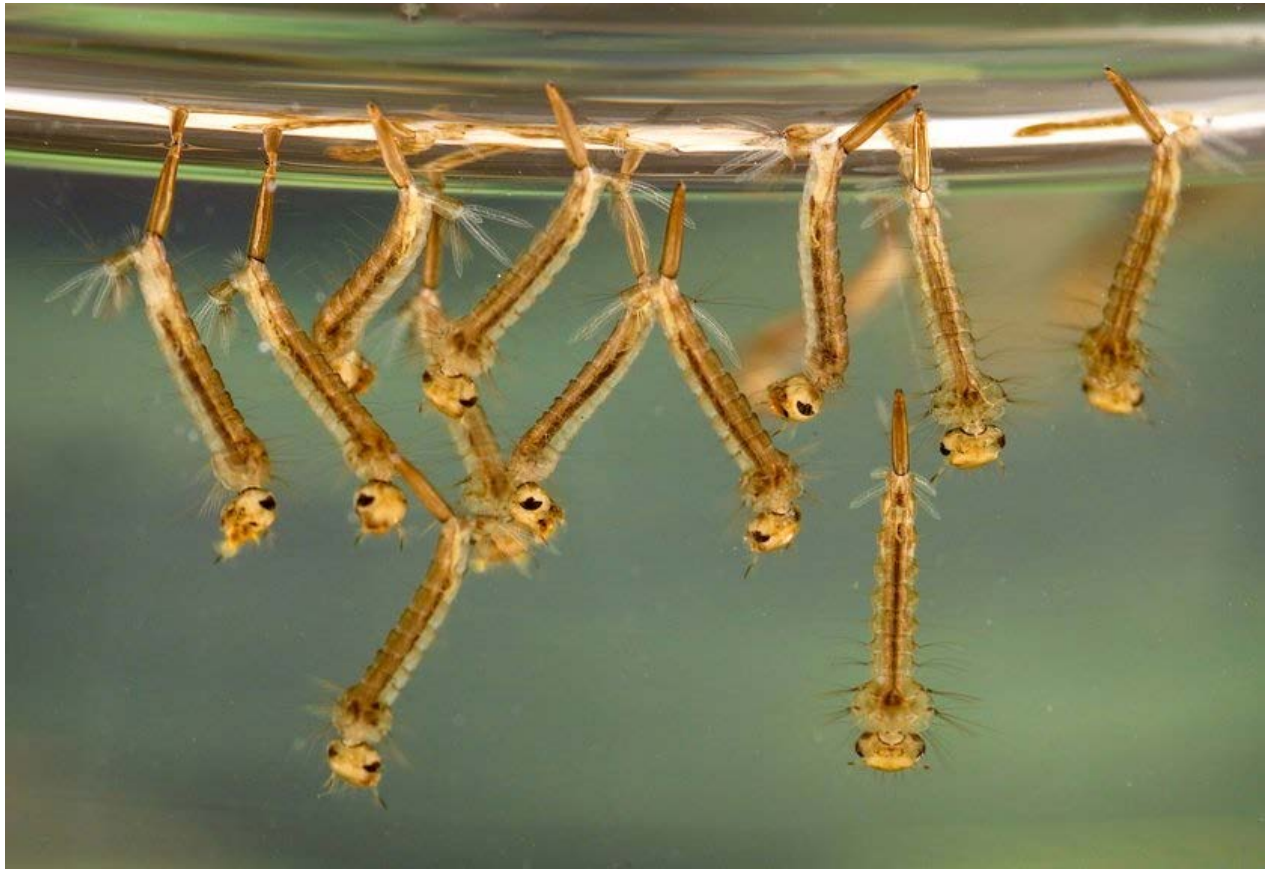




# 2019 Annual Report City of Fort Collins Mosquito Control Program



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# City of Fort Collins Mosquito Management Operations

## Annual Report For 2019

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## *Program Objectives*

Vector Disease Control International, LLC (VDCI) completed its 16<sup>th</sup> year of cost-effective Integrated Mosquito Management (IMM) for Fort Collins in 2019. The primary objective of Fort Collins' IMM Program is to monitor and reduce mosquito populations through the use of specific, environmentally sound, control techniques in order to protect its residents from the threat of mosquito-borne diseases. VDCI prioritizes the detection and elimination of larval mosquitoes in aquatic habitats, in conjunction with the monitoring of adult mosquito populations through routine surveillance, in order to assess West Nile virus vector species abundance in the area.

Open communication is maintained by VDCI between the HOA Residents, Property Management Companies, the Weld and Larimer County Departments of Health & Environment and surrounding municipalities to ensure that the highest level of mosquito control and epizootic response is achieved. This diligent and cooperative communication is important to the Fort Collins mosquito management program and provides significant benefit to public health throughout the entire area.

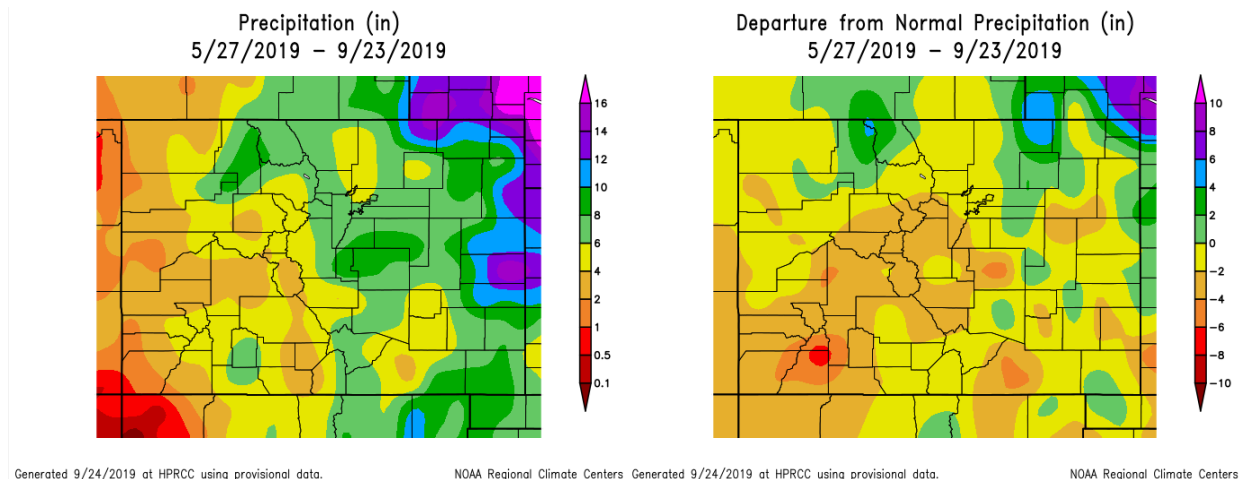
## *VDCI's Commitment*

Vector Disease Control International is a company built on the foundations of public health, ethics, professionalism, and technical expertise. VDCI is committed to providing our customers with scientifically based, environmentally sensitive and technologically advanced Integrated Mosquito Management (IMM) programs of the highest quality. All of our employees are committed to excellence in vector control and public health and strive to improve the quality of human life in communities through public education and the control of mosquitoes and the diseases they can transmit. VDCI currently has programs across the state of Colorado, providing services for towns, cities, counties, homeowners associations, and encephalitis surveillance monitoring programs for county health departments.

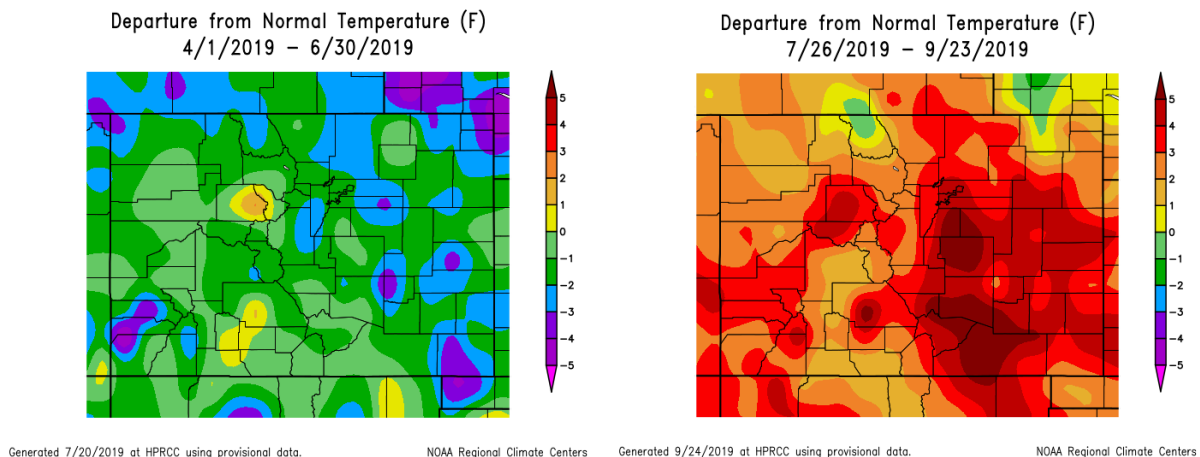
Vector Disease Control International, as the contractor for Fort Collins, will continue to use proven scientific Integrated Mosquito Management techniques to survey and control local mosquito populations using biorational larval controls and limited low-toxicity insecticide applications. All of the methods and materials used have been reviewed and registered by the US Environmental Protection Agency, the Centers for Disease Control, the Colorado Department of Agriculture and the American Mosquito Control Association.

## 2019 Season Perspective

At VDCI we have come to expect each Colorado summer to present a unique set of temperature, precipitation, irrigation, and human interactions that combine to create new and different challenges in both mosquito control and mosquito-borne disease proliferation. May and June 2019 started off with below average temperatures and snowpack levels 534% above the state average, or approximately 23 times the amount they were at in early June 2018. As the season started, precipitation was higher than average throughout most of the state, however with along with the below average temperatures, typical mosquito proliferation did not occur until July. As the summer moved on the temperature rose and precipitation slowed. Denver set a new state record with the highest temperature ever recorded in the month September, only to break that record the very next day with a high of 100 degrees set on September 2<sup>nd</sup>, 2019. West Nile virus activity in both mosquito and human populations remained below average throughout the summer.



Temperatures throughout Northern Colorado seem to increase every summer and 2019 was no different. With the exception of May and June 2019, The High Plains Regional Climate Center reports temperatures 2-3 degrees higher than average throughout the 2019 summer months. As temperatures increase so does the rate of growth in larval mosquito populations.

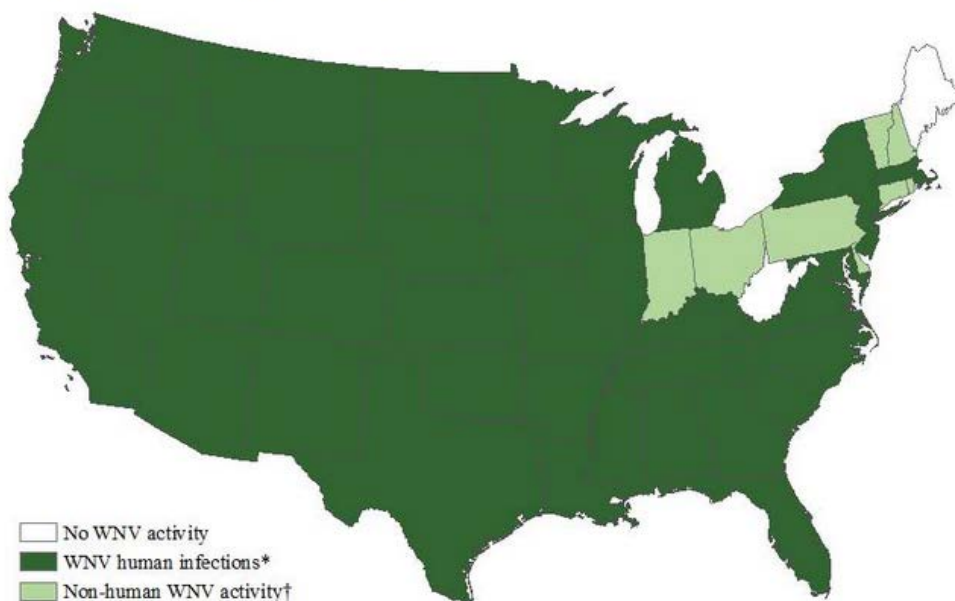


## *West Nile Virus Season*

Since the introduction of West Nile virus to the United States in 1999, the virus has made a complete westward expansion to the West Coast. Starting in the Northeastern parts of the United States, the virus steadily spread through the South, the Midwest, the Rocky Mountain region, and to the Western States. This extensive distribution is due to the ability of WNV to establish and persist in the wide variety of ecosystems present across the country. WNV has been detected in 65 different mosquito species in the U.S., though it appears that only a few *Culex* species drive epizootic and epidemic transmission (WNV Guidelines, CDC 2013). Although West Nile virus has been endemic to the United States since 1999, researchers continue to seek an understanding for some of the factors which contribute to region specific spikes in vector abundance and human risk. We still do not understand why some humans develop West Nile fever while other infections develop into more serious West Nile encephalitis or West Nile meningitis cases. Additionally, physicians and researchers continue to seek answers to the variable recovery times and occurrence of deaths that result with some infections. WNV has expanded to the point that it can now be found in all 48 contiguous states and since its introduction has produced two additional, large nationwide epidemics in 2003 and 2012 (WNV Guidelines, CDC 2013).

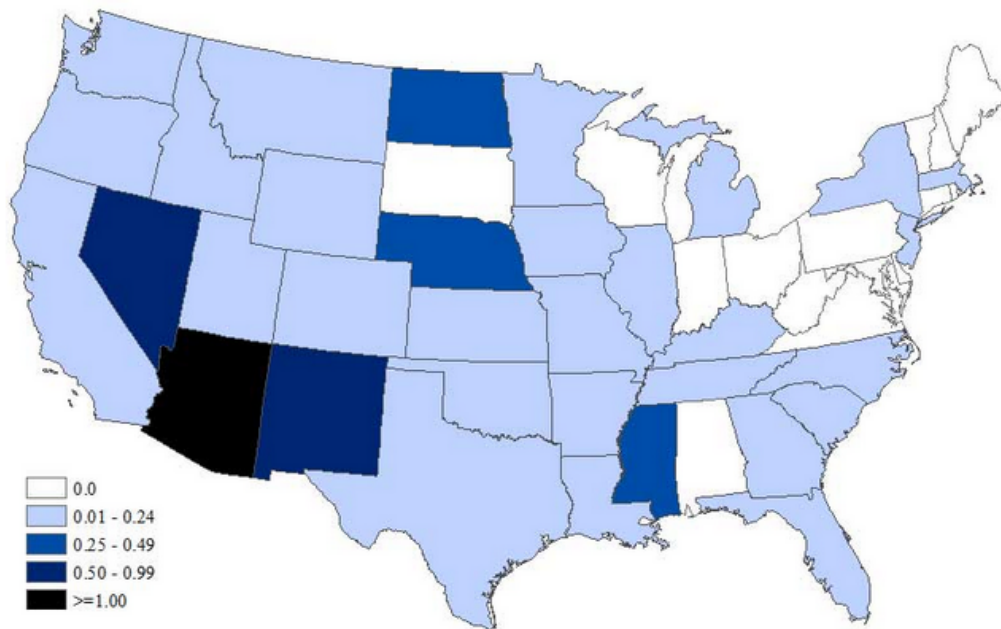
As of September 24<sup>th</sup>, 2019, a total of 46 states and the District of Columbia have reported West Nile virus infections in people, birds, or mosquitoes. Overall, 543 cases of West Nile virus disease in people have been reported to CDC. Of these, 355 (65%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 188 (35%) were classified as non-neuroinvasive disease.

### **West Nile Virus Activity by State – United States, 2019 (as of Septmeber 17, 2019)**





## West Nile Virus Neuroinvasive Disease Incidence by State – United States, 2019 (as of September 17, 2019)



This map shows the incidence of human West Nile virus neuroinvasive disease (e.g., meningitis, encephalitis, or acute flaccid paralysis) by state for 2019 with shading ranging from 0.01-0.24, 0.25-0.49, 0.50-0.99, and greater than 1.00 per 100,000 population.

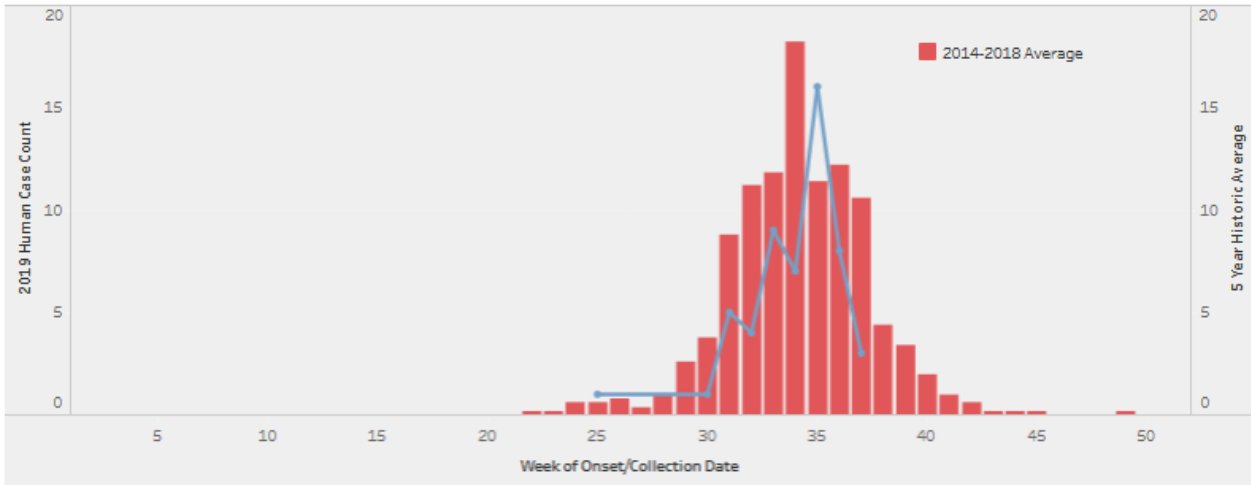
### Colorado 2019

As of September 24<sup>th</sup>, the Centers for Disease Control has reported 37 cases of human West Nile virus (WNV) infections from the state of Colorado. Seven of these cases were neuroinvasive including symptoms of meningitis or encephalitis (including meningoencephalitis), and fifteen were non-neuroinvasive which includes cases where individuals are non-symptomatic or present with fever and other minor symptoms. To date, there have been no deaths associated with West Nile virus infections from Colorado in 2019.

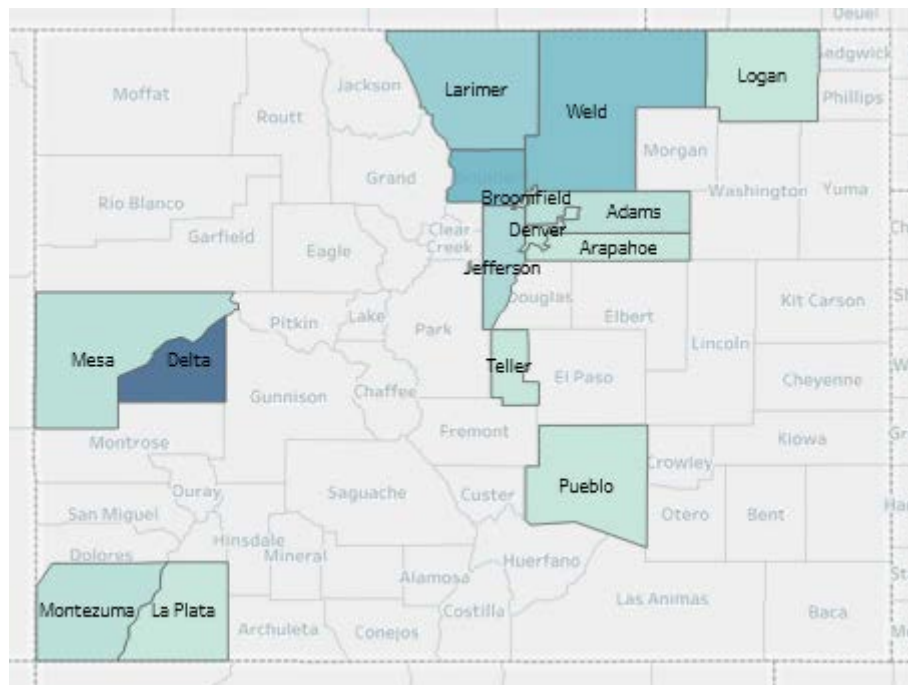
The Colorado Department of Health and Environment reports a total of 54 human cases of West Nile virus infection from the state of Colorado. In Northern Colorado, 5 human cases are reported from Larimer County, 8 from Boulder County, and 7 from Weld County. While we have passed the historical peak of WNV risk these numbers are expected to rise as there is often a delay in onset of symptoms, diagnosis and reporting. Please note that the additional cases reported by CDPHE will also be reported to the Centers for Disease Control.

Fifteen Counties across the state of Colorado have reported human West Nile virus infection. These include Adams, Arapahoe, Boulder, Broomfield, Delta, Denver, Jefferson, La Plata, Larimer, Logan, Mesa, Montezuma, Pueblo, Teller, and Weld.

Current 2019 human case count: 54



## Distribution of Human WNV Cases in Colorado - 2019



## *Larval Mosquito Control*

Larval mosquito control is the foundation of the Fort Collins Mosquito Control program and can be an extremely effective way to manage mosquitoes, thereby reducing the number of potential disease vectors and annoyances associated with biting adults. Years of research and practical experience have shown that the most effective way to control mosquito populations is through an aggressive Integrated Mosquito Management (IMM) approach. This approach aims at using a variety of concepts, tools, and products to reduce a pest population to a tolerable level.

Pre-season larval control work involved ground truthing GIS maps and remapping areas where new development or flooding had altered the landscape. VDCI began larval site inspections in many areas mid-April. Hiring of seasonal field technicians began in March and continued into May. VDCI's Annual Field Technician Classroom Training Day took place on May 20<sup>th</sup> with over 50 new and returning field technicians in attendance. Field training by VDCI management and veteran employees lasted through May and full-time field activities were in force by mid-June.



In 2019, Vector Disease Control field technicians performed 5,260 larval site inspections, of which 4,223 (80.3%) were wet upon inspection, 2,181 (51.6%) were producing mosquito larvae. To prevent these larvae from emerging as adult mosquitoes, VDCI applied 8,873.9 lbs. of VectoBac (Bti), and 38.74 gallons of BVA 2 mineral oil to 1,767.1 acres of land.

In 2018, Vector Disease Control field technicians performed 5,944 larval site inspections, of which 4,812 (81.0%) were wet upon inspection, and 3,204 (62.7%) were producing mosquito larvae. To prevent these larvae from emerging as adult mosquitoes, VDCI applied 9,500.6 lbs. of VectoBac (Bti) 309.1 lbs. of Vectolex (Bs), and 144.6 gallons of BVA mineral oil to 1,817.7 acres of lands in the City of Fort Collins.



During 2019, VDCI technicians performed site inspections at 92 residential backyards and at approximately 1,346 storm drains 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 we or had the potential to hold water were treated with long term larvicide products including Altosid pellets, briquettes, and VectoLex WSP (Bsph).

Larval mosquito control can be achieved in several ways including biological, biochemical, chemical, and mechanical means. No single larvicide product will work effectively in every habitat where mosquito larvae are found, so a variety of products and methods should be employed. Additionally, although there are a variety of methods for reducing larval populations, some may have negative consequences that outweigh their benefits. Mechanical or physical habitat modification is a technique which VDCI uses on relatively small scale projects, as the area to be modified must be carefully reviewed.

VDCI's favored method of larval mosquito control is through the use of bacterial bio-rational products. The main product used by VDCI is a variety of bacteria (*Bacillus thuringiensis var. israeliensis*). *Bti*, as it is known, has become the cornerstone of mosquito control programs throughout the world. The benefits include its efficacy and lack of environmental impacts. When used in accordance with its label, successful control of mosquito larvae can be achieved without impact to non-target species such as other aquatic invertebrates, birds, mammals, fish, amphibians, reptiles, or humans. A broad label allows for the use of the product in the majority of the habitats throughout the service area. Another bacterial product closely related to *Bti* is *Bacillus sphaericus* (*Bs*). *BS* provides similar benefits to *Bti* while also providing residual control of certain species of mosquitoes. It is used specifically in difficult to treat areas where *Culex* are the predominant species due to its limitations and high cost.

Other larval control products include the insect growth regulator methoprene (Altosid), and light mineral oils (BVA 2 larvicide oil). Methoprene is a synthetic version of a juvenile growth hormone in larval mosquitoes. The hormone prevents the normal development of larval mosquitoes into pupae and adults, eventually causing death. VDCI limits the use of chemical larvicides to areas with little biodiversity, such as road side ditches, or areas that chronically produce high mosquito populations. They are only used after a thorough assessment has been made of any habitat where their use is being considered. Mineral oil is the only product effective in controlling mosquito pupae and therefore is an essential tool when pupae are present.

## *VDCI Surveillance Laboratory*

Information about mosquito abundance and species diversity is essential to integrated program. Vector Disease Control International utilizes two kinds of traps to monitor mosquito







populations. The most commonly used is the CDC light trap which uses carbon-dioxide from dry ice as bait to attract female mosquitoes seeking a blood meal from a breathing animal. Once attracted by the CO<sub>2</sub>, the mosquitoes are lured by a small light to a fan that pulls them into a net for collection. The second type of trap VDCI uses is called a gravid trap. Gravid traps use a tub of highly-organic water as bait to attract female mosquitoes that are looking for a place to lay their eggs. A fan placed close to the water surface forces mosquitoes that come to the water into a collection net. Once back in the laboratory, the contents of the trap nets are counted and speciated by trained technicians.

In 2019, Vector Disease Control International monitored a statewide network of hundreds of weekly trap sites, collecting adult mosquitoes that were counted and identified to species by the VDCI Surveillance Laboratories. While individual traps provide only limited information, trap data is interpreted in the context of historical records for the same trap site, going back in time more than a decade. Individual traps are also compared to other traps from around the region that were set on the same night and therefore exposed to similar weather conditions. Technicians working in the Surveillance Laboratories at Vector Disease Control International are trained to provide accurate species-level identification of both larval and adult mosquitoes.

Additionally, the VDCI Surveillance Laboratory conducts an intensive larval identification program with larval mosquito samples collected by I&L technicians prior to larviciding being identified to species. This information is now invaluable in targeting mosquito control efforts as we gain a greater understanding of the habitat types preferred by Colorado mosquito species and the seasonality of these habitats as sites for mosquito development.

Specimens and data collected from these traps and larval identification are used in:

-  Determining the effect of larval control efforts. Each mosquito species prefers specific kinds of habitats for larval development. If a trap includes large numbers, it could indicate the presence of an unknown larval habitat and, based on the species identification and known habitat preference for that species, direct field technicians as to possible sources of the mosquitoes collected.

-  Determining larval and adult mosquito species. This helps to illustrate the threat of mosquito-borne disease amplification and transmission because different mosquito species can vector different diseases to people and animals.
-  Determining where adult control efforts were necessary. While mosquito eradication is impossible, significant population reduction is achievable. In places where larval control is insufficient, such as neighborhoods where adult mosquitoes have migrated in from outside of the control area, it may be necessary to use adulticide methods, such as ULV truck fogging or barrier sprays of harborage areas. Trap counts that exceed an acceptable threshold for an area may trigger adult control measures.
-  Surveillance for Mosquito-borne Disease. Historically, VDCI efforts were targeted primarily at controlling mosquito nuisance problems with limited disease surveillance. However, since the arrival of the West Nile virus in Colorado in August of 2002, the paradigm has shifted toward disease prevention and control. Accurate species identification of the mosquitoes in the traps is important when monitoring species population trends. It also is necessary for evaluating whether a population spike represents an actual increase in disease transmission potential or only an increased nuisance level.

#### SURVEILLANCE LIGHT TRAP DATA

In 2019, there were 801 CDC light surveillance traps set within Fort Collins, which collected a total of 69,568 mosquitoes. This year there was an average of 86.9 mosquitoes caught per trap per night and an average 30.9 *Culex* mosquitoes per trap per night. The composition of mosquitoes collected was 35.5% (24,716) *Culex spp.*, 60.1% (41,803) *Aedes/Ochlerotatus spp.*, 2.6% (1,812) *Culiseta spp.*, and 0.1% (49) *Anopheles spp.* Please refer to the Light Trap Genus Summary for a weekly breakdown of mosquitoes collected by trap location.

In 2018, there were 815 CDC light surveillance traps set within Fort Collins, which collected a total of 78,741 mosquitoes. That year there was an average of 97 mosquitoes caught per trap per night and an average 34 *Culex* mosquitoes per trap per night. The composition of mosquitoes collected was 35.1% (27,605) *Culex spp.*, 63.2% (49,763) *Aedes/Ochlerotatus spp.*, 0.6% (509) *Culiseta spp.*, and 0.0% (12) *Anopheles spp.*

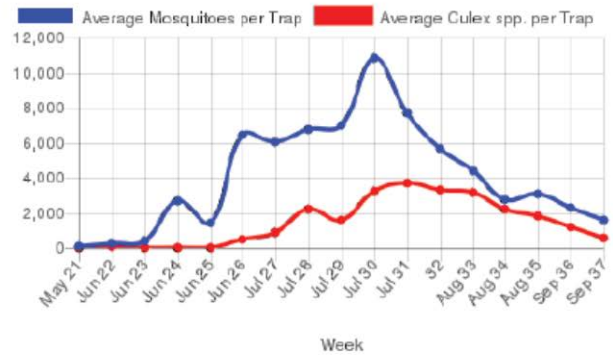
## 2019 Fort Collins Trap Composite Data

Total number of trap/nights set:	801
Total number of mosquitoes collected:	69,568.0
Average mosquitoes per trap/night:	86.9
Average Culex per trap/night:	30.9

### Species collected and abundance:

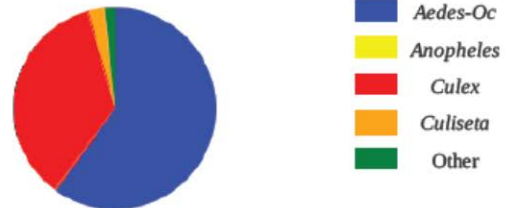
<i>Aedes dorsalis</i>	1,661.0	2.4%
<i>Aedes increpitus</i>	2,594.0	3.7%
<i>Aedes melanimon</i>	657.0	0.9%
<i>Aedes spp.</i>	27.0	0.0%
<i>Aedes trivittatus</i>	193.0	0.3%
<i>Aedes vexans</i>	36,671.0	52.7%
<i>Anopheles earlei</i>	1.0	0.0%
<i>Anopheles freeborni</i>	46.0	0.1%
<i>Anopheles spp.</i>	2.0	0.0%
<i>Coquillettidia perturbans</i>	1,188.0	1.7%
<i>Culex pipiens</i>	5,710.0	8.2%
<i>Culex tarsalis</i>	19,006.0	27.3%
<i>Culiseta inornata</i>	1,812.0	2.6%

### Seasonality



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	41,803	60.1%
<i>Anopheles</i>	49	0.1%
<i>Culex</i>	24,716	35.5%
<i>Culiseta</i>	1,812	2.6%
Other	1,188	1.7%

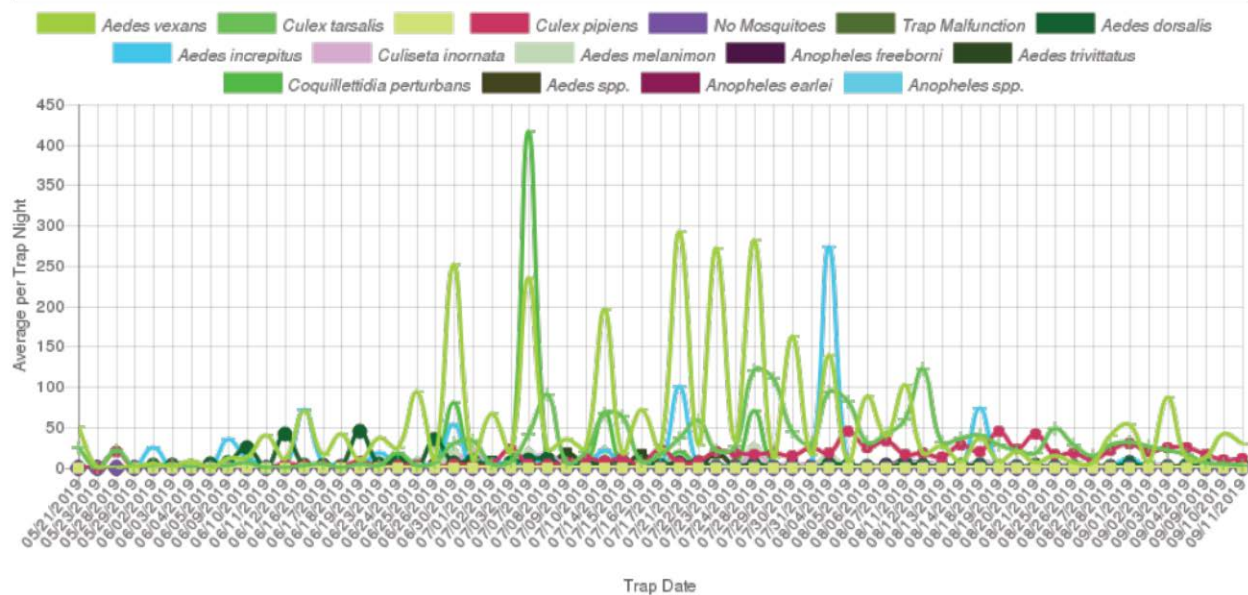




## Adult Mosquito Surveillance Summary

Start Date: 05/01/2019 End Date: 09/27/2019

Fort Collins



### CSU WEST NILE VIRUS MOSQUITO SAMPLE TESTING RESULTS - LARIMER COUNTY

Many local health departments have moved towards mosquito-based surveillance indicators to assess the weekly risk of West Nile transmission and guide response decisions for adult mosquito control applications. The vector index and infection rate is derived by testing the mosquitoes VDCI collects for the presence of West Nile virus. This value is closely monitored by the CDPHE and local health departments to evaluate the risk posed by the vector mosquito population.

As defined in the CDC guidelines for West Nile virus surveillance, prevention and control, the vector index (VI) is an estimate of the number of West Nile virus infected mosquitoes in an area. This number can serve as a human health risk value. An operational value of 0.5, which was derived from the comparison of historical data for human infections, as well as relative abundance and infection in mosquitoes, serves as an indicator of high risk for West Nile virus transmission to humans in the corresponding area. As the value of the vector index increases there is a corresponding risk of human disease and this value can be used to offset epidemics.

As stated on the CDPHE website, the seasonal variation of West Nile virus risk can change throughout a summer and it is best to assume you have some risk for WNV if you have mosquitoes.



As of Sept 18<sup>th</sup>, 2019 Colorado State University's Department of Microbiology, Immunology and Pathology, has tested a total of 1,224 mosquito pools from Larimer County. A total of 48 mosquito pool samples have tested positive for WNV with 6 of those being collected from Loveland and 42 from the City of Fort Collins. Testing of these mosquitoes for West Nile virus is paid for by the Town of Berthoud, the City of Fort Collins, and the City of Loveland. It's important to note that the large number of WNV positive sample pools reported from Fort Collins is highly correlated with the fact they test all mosquitoes with the potential for transmitting disease versus just a subset of the population.

## *ADULT MOSQUITO CONTROL*

The goal of Vector Disease Control International is to provide our customers with the best options for safe, effective, modern mosquito management. The primary emphasis of the Fort Collins Mosquito Management Program is to control mosquitoes in the larval stage, using safe biological control products. VDCI uses EPA and CDC approved adulticides to reduce mosquito populations. During the 2019 season a total of 97.1 miles of roads and access paths within the City of Fort Collins were fogged using AquaKontrol3030.

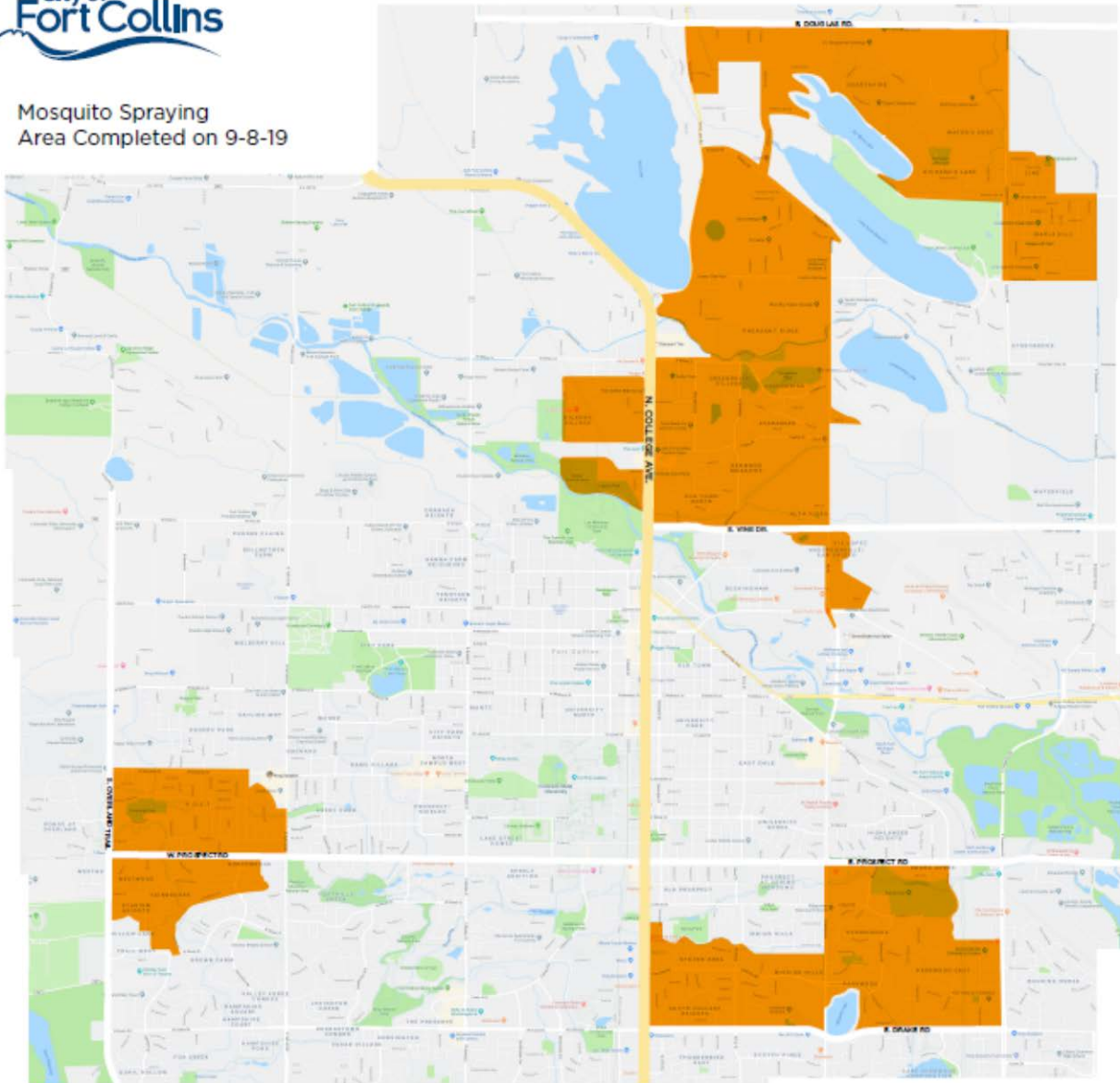
VDCI was also privately contracted to perform adult mosquito control for Greenstone HOA, Lindenwood HOA, Ridgewood Hills HOA, and Willow Springs HOA, during the 2019 season. A total of 59.85 miles within these neighborhoods were sprayed via ground based vehicles with Ultra Low Volume (ULV) AquaKontrol mosquito adulticides to reduce adult mosquito populations on the dates listed below.

In response to elevated West Nile virus activity in Disease Week 35 (Ending 8/31/2019) the City of Fort Collins and Larimer County Department of Health requested ULV truck-based control efforts within Fort Collins on September 8<sup>th</sup> and 11<sup>th</sup>, 2019. On September 8<sup>th</sup>, approximately 1/3 of the total zone had been completed, however due to inclement weather the rest of the night's application was cancelled. On September 9<sup>th</sup> the West Nile virus vector index had been found to be reduced after the analysis of new trap and sample data. Because of this reduction in the West Nile virus vector index, the decision to cancel the application scheduled for September 11<sup>th</sup> was made.

VDCI uses state of the art technology, calibrated application timing, and least-toxic products to minimize non-target impacts. All adult mosquito control is accomplished using Ultra Low Volume (ULV) fogging equipment and performed after dusk when the majority of mosquito species are most active. This type of equipment produces droplets averaging 12 microns in diameter and allows for a minimal amount of product to be put into the environment. These treatments take place in the evening when mosquitoes are flying in greater numbers and non-target insect activity (for example, day-flying pollinators like bees) is greatly reduced. Using this application technique, the overall goal of minimal environmental impact and effective adult control is achieved in the targeted area.



Mosquito Spraying  
Area Completed on 9-8-19



## *Public Relations and Education*

VDCI is dedicated to providing strong Public Outreach and Education Programs to residents in all of our communities. Citizen complaints, inquiry, information and satisfaction surveys can aid in evaluating the effectiveness of a program. VDCI constantly looks for ways to better serve the communities we work with and encourages both the citizen and local media involvement in order to increase the effectiveness of our programs. We have clearly demonstrated that commitment and belief by proactively serving Fort Collins (and all of our contracted communities) with numerous innovative programs, activities and services.

Customer service is always a high priority for VDCI. We take pride in training each and every technician so that they have the knowledge to provide residents with the correct answers to their questions. Each field technician spends part of their day responding to resident concerns in their work area. This in-field customer service personalizes the mosquito control program, provides VDCI with local information on mosquito activity and presents a valuable opportunity to educate our residents about mosquito biology and control.

### **MosquitoLine™**

VDCI maintains a toll-free telephone line (877-276-4306) and local line to the Northern Colorado Office (970-278-9977) at no cost to the customer. This service can be utilized to accept calls from the public concerning:

- ✧ Information about mosquito biology and source reduction of mosquito habitats
- ✧ information on program components, operations and monitoring
- ✧ Seasonal West Nile virus activity
- ✧ Personal protection options for mosquito annoyances and West Nile virus risk
- ✧ Reports about mosquitoes and possible larval mosquito habitats
- ✧ Requests to perform larvicide applications and/or opt-out of any adulticide spraying via a shut-off list
- ✧ Request notification when adulticide spraying is planned in their neighborhood
- ✧ Request health and safety information about mosquito control operations and pesticide products used

VDCI has provided Mosquito Hotlines to the residents in communities which we are contracted to also reduce workload by municipal personnel. This enables direct communication and response by mosquito control employees to resident's concerns about West Nile virus and larval site activity and treatment. VDCI maintains a log of calls received and will summarize call activity in monthly and annual reports.

VDCI received 74 phone calls or emails from Fort Collins residents in 2019. VDCI received 6 calls from residents reporting new larval mosquito sites in their area. VDCI inspected all of the reported sites and added new areas if found producing mosquito larvae. VDCI received 17 mosquito annoyance calls from residents of the City of Fort Collins. VDCI received 16 calls from residents requesting information about the City of Fort Collins mosquito control program and how decisions are made about adulticiding. VDCI provided the relevant information and directed them to our website for further information about the products used. There were 35 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](http://www.fcgov.com/westnile)). There was one business opt out call and inspection in the month of June 2019

**CALL NOTIFICATION & SHUTOFF SYSTEM**

VDCI continues to maintain a comprehensive Call Notification & Shutoff database and will notify residents on the list when conducting ULV adulticide spray applications within the City of Fort Collins.

**DAILY POSTING OF ULV SPRAY ZONES** are maintained and updated online daily at <http://www.vdci.net/colorado>

## Appendix 1: Individual Light Trap Summaries

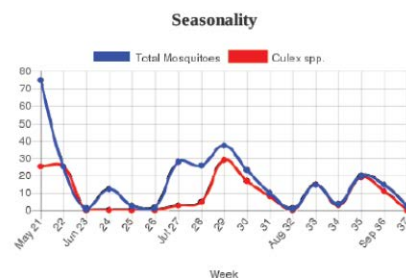
### FC-001

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Magic Carpet  
 GPS: 40.49087011315602, -105.08256990462542

Total number of trap/nights set: 17.0  
 Total number of mosquitoes collected: 300.0  
 Average mosquitoes per trap/night: 17.6  
 Average Culex per trap/night: 9.4

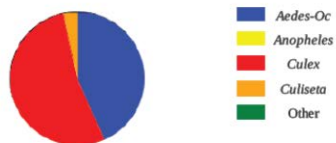
#### Species collected and abundance:

<i>Aedes dorsalis</i>	35.0	11.7%
<i>Aedes vexans</i>	95.0	31.7%
<i>Culex pipiens</i>	25.0	8.3%
<i>Culex tarsalis</i>	135.0	45.0%
<i>Culiseta inornata</i>	10.0	3.3%



#### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	130.0	43.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	160.0	53.3%
<i>Culiseta</i>	10.0	3.3%
Other	0.0	0.0%



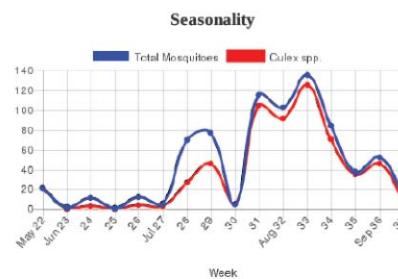
### FC-004

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Bighorn  
 GPS: 40.53485999172883, -105.0373300909996

Total number of trap/nights set: 16.0  
 Total number of mosquitoes collected: 748.0  
 Average mosquitoes per trap/night: 46.8  
 Average Culex per trap/night: 36.9

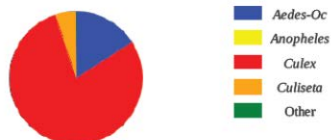
#### Species collected and abundance:

<i>Aedes dorsalis</i>	11.0	1.5%
<i>Aedes increpitus</i>	1.0	0.1%
<i>Aedes trivittatus</i>	1.0	0.1%
<i>Aedes vexans</i>	106.0	14.2%
<i>Coquillettidia perturbans</i>	1.0	0.1%
<i>Culex pipiens</i>	61.0	8.2%
<i>Culex tarsalis</i>	530.0	70.9%
<i>Culiseta inornata</i>	37.0	4.9%



#### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	119.0	15.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	591.0	79.0%
<i>Culiseta</i>	37.0	4.9%
Other	1.0	0.1%





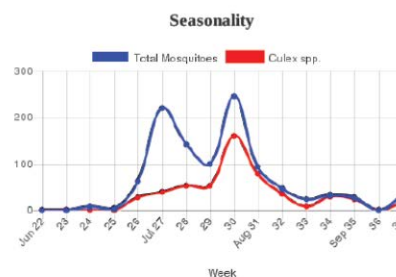
## FC-006

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: N. Linden  
 GPS: 40.592327859908366, -105.06629493087529

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,038.0  
 Average mosquitoes per trap/night: 69.2  
 Average Culex per trap/night: 34.7

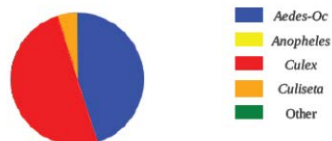
### Species collected and abundance:

<i>Aedes dorsalis</i>	18.0	1.7%
<i>Aedes increpitus</i>	1.0	0.1%
<i>Aedes melanimon</i>	1.0	0.1%
<i>Aedes trivittatus</i>	3.0	0.3%
<i>Aedes vexans</i>	444.0	42.8%
<i>Coquillettia perturbans</i>	1.0	0.1%
<i>Culex pipiens</i>	146.0	14.1%
<i>Culex tarsalis</i>	375.0	36.1%
<i>Culiseta inornata</i>	49.0	4.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	467.0	45.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	521.0	50.2%
<i>Culiseta</i>	49.0	4.7%
Other	1.0	0.1%



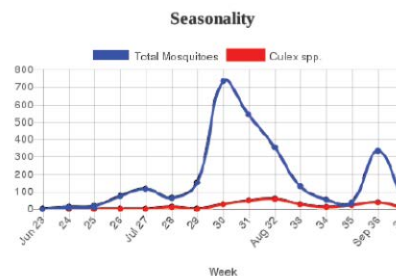
## FC-011

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Golden Current  
 GPS: 40.56947993409379, -105.13603001832962

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 2,658.0  
 Average mosquitoes per trap/night: 177.2  
 Average Culex per trap/night: 16.8

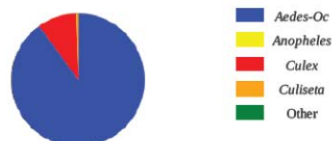
### Species collected and abundance:

<i>Aedes dorsalis</i>	8.0	0.3%
<i>Aedes increpitus</i>	42.0	1.6%
<i>Aedes melanimon</i>	2.0	0.1%
<i>Aedes trivittatus</i>	29.0	1.1%
<i>Aedes vexans</i>	2,311.0	86.9%
<i>Culex pipiens</i>	91.0	3.4%
<i>Culex tarsalis</i>	161.0	6.1%
<i>Culiseta inornata</i>	14.0	0.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	2,392.0	90.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	252.0	9.5%
<i>Culiseta</i>	14.0	0.5%
Other	0.0	0.0%



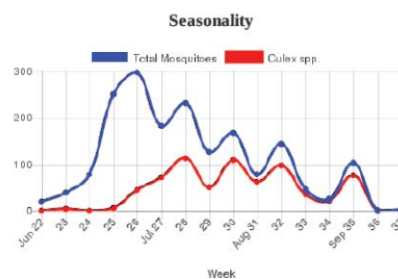
## FC-014

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: FC Visitors Center  
 GPS: 40.56359015990421, -105.00656180083752

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,797.0  
 Average mosquitoes per trap/night: 119.8  
 Average Culex per trap/night: 46.5

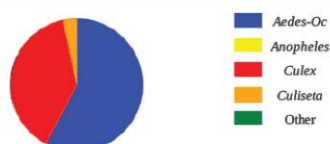
### Species collected and abundance:

<i>Aedes dorsalis</i>	119.0	6.6%
<i>Aedes increpitus</i>	123.0	6.8%
<i>Aedes melanimon</i>	55.0	3.1%
<i>Aedes vexans</i>	741.0	41.2%
<i>Culex pipiens</i>	90.0	5.0%
<i>Culex tarsalis</i>	607.0	33.8%
<i>Culiseta inornata</i>	62.0	3.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,038.0	57.8%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	697.0	38.8%
<i>Culiseta</i>	62.0	3.5%
Other	0.0	0.0%



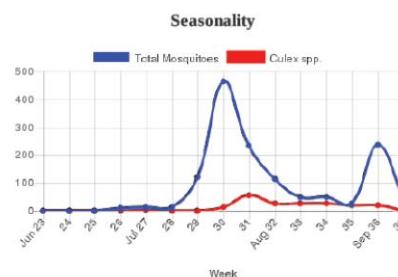
## FC-015

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Stuart and Dorset  
 GPS: 40.559800054931735, -105.12409016489983

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,380.0  
 Average mosquitoes per trap/night: 92.0  
 Average Culex per trap/night: 12.9

### Species collected and abundance:

<i>Aedes dorsalis</i>	7.0	0.5%
<i>Aedes melanimon</i>	2.0	0.1%
<i>Aedes vexans</i>	1,172.0	84.9%
<i>Culex pipiens</i>	36.0	2.6%
<i>Culex tarsalis</i>	158.0	11.4%
<i>Culiseta inornata</i>	5.0	0.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,181.0	85.6%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	194.0	14.1%
<i>Culiseta</i>	5.0	0.4%
Other	0.0	0.0%



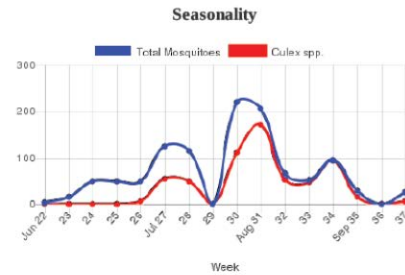
## FC-019

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Edora Park  
 GPS: 40.56558599182539, -105.05203027278186

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,100.0  
 Average mosquitoes per trap/night: 73.3  
 Average Culex per trap/night: 40.5

### Species collected and abundance:

<i>Aedes dorsalis</i>	6.0	0.5%
<i>Aedes inaeptus</i>	121.0	11.0%
<i>Aedes melanion</i>	3.0	0.3%
<i>Aedes trivittatus</i>	3.0	0.3%
<i>Aedes vexans</i>	332.0	30.2%
<i>Anopheles freeborni</i>	1.0	0.1%
<i>Coquilletidia perturbans</i>	1.0	0.1%
<i>Culex pipiens</i>	137.0	12.5%
<i>Culex tarsalis</i>	470.0	42.7%
<i>Culiseta inornata</i>	26.0	2.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	465.0	42.3%
<i>Anopheles</i>	1.0	0.1%
<i>Culex</i>	607.0	55.2%
<i>Culiseta</i>	26.0	2.4%
Other	1.0	0.1%



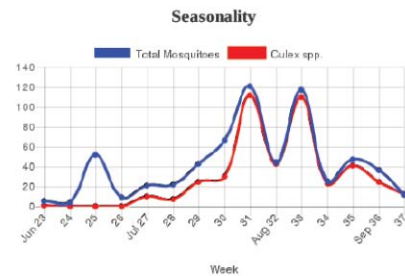
## FC-023

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Boltz  
 GPS: 40.544659909435566, -105.06409987807274

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 628.0  
 Average mosquitoes per trap/night: 41.9  
 Average Culex per trap/night: 29.3

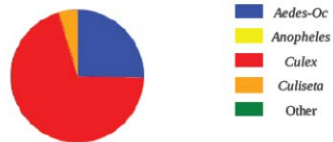
### Species collected and abundance:

<i>Aedes dorsalis</i>	15.0	2.4%
<i>Aedes melanion</i>	3.0	0.5%
<i>Aedes vexans</i>	142.0	22.6%
<i>Culex pipiens</i>	26.0	4.1%
<i>Culex tarsalis</i>	413.0	65.8%
<i>Culiseta inornata</i>	29.0	4.6%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	160.0	25.5%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	439.0	69.9%
<i>Culiseta</i>	29.0	4.6%
Other	0.0	0.0%



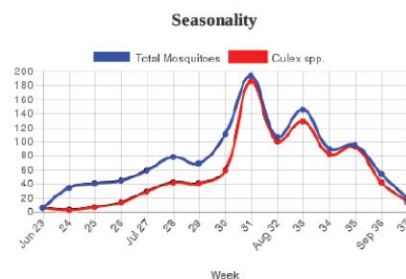
## FC-027

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 3001 San Luis  
 GPS: 40.546510068398455, -105.03359008580445

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,145.0  
 Average mosquitoes per trap/night: 76.3  
 Average Culex per trap/night: 56.1

### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	1.0	0.1%
<i>Aedes increpitus</i>	59.0	5.2%
<i>Aedes vexans</i>	227.0	19.8%
<i>Culex pipiens</i>	235.0	20.5%
<i>Culex tarsalis</i>	607.0	53.0%
<i>Culiseta inornata</i>	16.0	1.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	287.0	25.1%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	842.0	73.5%
<i>Culiseta</i>	16.0	1.4%
Other	0.0	0.0%



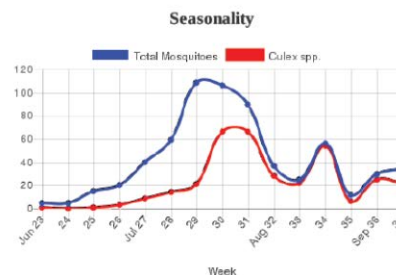
## FC-029

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Ben's Park  
 GPS: 40.51010997967771, -105.06934996694326

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 642.0  
 Average mosquitoes per trap/night: 42.8  
 Average Culex per trap/night: 22.5

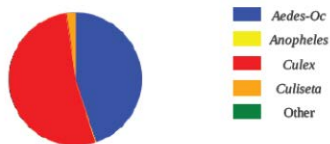
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	19.0	3.0%
<i>Aedes increpitus</i>	1.0	0.2%
<i>Aedes melanimon</i>	1.0	0.2%
<i>Aedes vexans</i>	268.0	41.7%
<i>Anopheles earlei</i>	1.0	0.2%
<i>Culex pipiens</i>	34.0	5.3%
<i>Culex tarsalis</i>	304.0	47.4%
<i>Culiseta inornata</i>	14.0	2.2%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	289.0	45.0%
<i>Anopheles</i>	1.0	0.2%
<i>Culex</i>	338.0	52.6%
<i>Culiseta</i>	14.0	2.2%
Other	0.0	0.0%



## FC-029gr

Season: 05/01/2019 - 09/27/2019

Trap Type: Gravid Trap

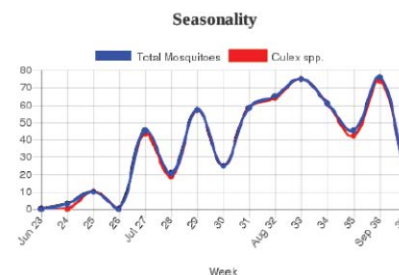
Location: Ben's Park Gravid

GPS: 40.511010052166334, -105.06937008351088

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 563.0  
Average mosquitoes per trap/night: 37.5  
Average Culex per trap/night: 36.7

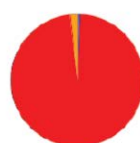
### Species collected and abundance:

<i>Aedes vexans</i>	3.0	0.5%
<i>Culex pipiens</i>	550.0	97.7%
<i>Culiseta inornata</i>	10.0	1.8%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	3.0	0.5%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	550.0	97.7%
<i>Culiseta</i>	10.0	1.8%
Other	0.0	0.0%



■ *Aedes-Oc*  
■ *Anopheles*  
■ *Culex*  
■ *Culiseta*  
■ Other

## FC-031

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

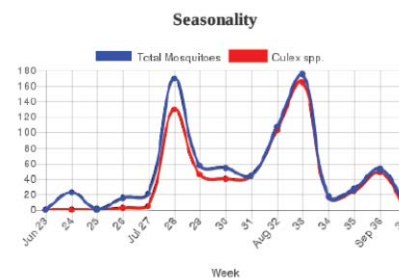
Location: Willow Springs

GPS: 40.50608996726513, -105.03941986709833

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 775.0  
Average mosquitoes per trap/night: 51.7  
Average Culex per trap/night: 41.7

### Species collected and abundance:

<i>Aedes dorsalis</i>	30.0	3.9%
<i>Aedes inaequalis</i>	13.0	1.7%
<i>Aedes vexans</i>	71.0	9.2%
<i>Culex pipiens</i>	34.0	4.4%
<i>Culex tarsalis</i>	592.0	76.4%
<i>Culiseta inornata</i>	35.0	4.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	114.0	14.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	626.0	80.8%
<i>Culiseta</i>	35.0	4.5%
Other	0.0	0.0%



■ *Aedes-Oc*  
■ *Anopheles*  
■ *Culex*  
■ *Culiseta*  
■ Other



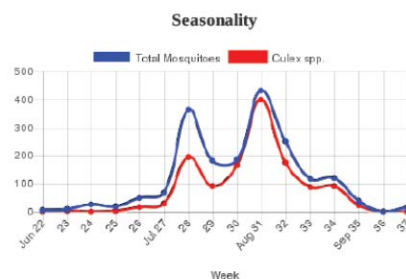
## FC-034

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Country Club  
 GPS: 40.62555999791826, -105.05009002983572

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,886.0  
 Average mosquitoes per trap/night: 125.7  
 Average Culex per trap/night: 85.6

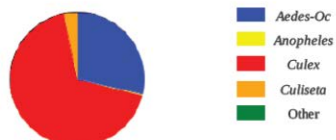
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	15.0	0.8%
<i>Aedes increpitus</i>	50.0	2.7%
<i>Aedes melanimon</i>	5.0	0.3%
<i>Aedes spp.</i>	1.0	0.1%
<i>Aedes trivittatus</i>	1.0	0.1%
<i>Aedes vexans</i>	465.0	24.7%
<i>Anopheles freeborni</i>	5.0	0.3%
<i>Culex pipiens</i>	34.0	1.8%
<i>Culex tarsalis</i>	1,250.0	66.3%
<i>Culiseta inornata</i>	60.0	3.2%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	537.0	28.5%
<i>Anopheles</i>	5.0	0.3%
<i>Culex</i>	1,284.0	68.1%
<i>Culiseta</i>	60.0	3.2%
Other	0.0	0.0%



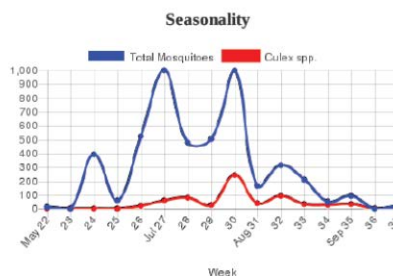
## FC-036

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Hemlock  
 GPS: 40.60076561609448, -105.07983673363923

Total number of trap/nights set: 16.0  
 Total number of mosquitoes collected: 4,836.0  
 Average mosquitoes per trap/night: 302.3  
 Average Culex per trap/night: 41.6

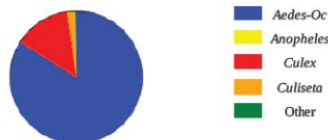
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	31.0	0.6%
<i>Aedes increpitus</i>	426.0	8.8%
<i>Aedes melanimon</i>	39.0	0.8%
<i>Aedes spp.</i>	1.0	0.0%
<i>Aedes trivittatus</i>	1.0	0.0%
<i>Aedes vexans</i>	3,562.0	73.7%
<i>Coquillettidia perturbans</i>	15.0	0.3%
<i>Culex pipiens</i>	61.0	1.3%
<i>Culex tarsalis</i>	604.0	12.5%
<i>Culiseta inornata</i>	96.0	2.0%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	4,060.0	84.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	665.0	13.8%
<i>Culiseta</i>	96.0	2.0%
Other	15.0	0.3%



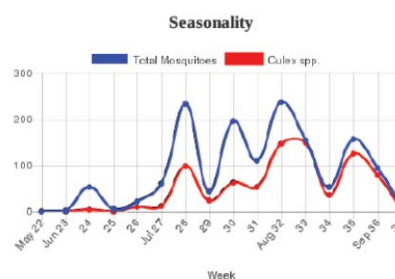
## FC-037

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Chelsea Ridge  
 GPS: 40.51667989969775, -105.09808011353017

Total number of trap/nights set: 16.0  
 Total number of mosquitoes collected: 1,444.0  
 Average mosquitoes per trap/night: 90.3  
 Average Culex per trap/night: 50.6

### Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes inaeptus</i>	2.0	0.1%
<i>Aedes trivittatus</i>	3.0	0.2%
<i>Aedes vexans</i>	614.0	42.5%
<i>Culex pipiens</i>	44.0	3.0%
<i>Culex tarsalis</i>	766.0	53.0%
<i>Culiseta inornata</i>	15.0	1.0%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	619.0	42.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	810.0	56.1%
<i>Culiseta</i>	15.0	1.0%
Other	0.0	0.0%



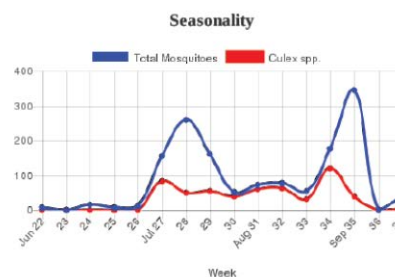
## FC-038

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Lochside Lane  
 GPS: 40.59910992026055, -105.00622987747194

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,443.0  
 Average mosquitoes per trap/night: 96.2  
 Average Culex per trap/night: 36.2

### Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes dorsalis</i>	23.0	1.6%
<i>Aedes inaeptus</i>	8.0	0.6%
<i>Aedes melanimon</i>	3.0	0.2%
<i>Aedes vexans</i>	783.0	54.3%
<i>Culex pipiens</i>	35.0	2.4%
<i>Culex tarsalis</i>	508.0	35.2%
<i>Culiseta inornata</i>	83.0	5.8%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	817.0	56.6%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	543.0	37.6%
<i>Culiseta</i>	83.0	5.8%
Other	0.0	0.0%



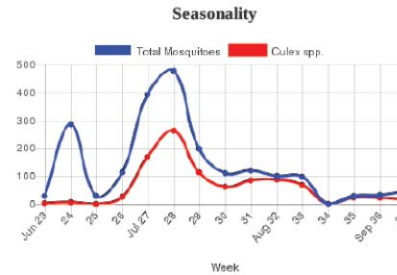
## FC-039

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Fossil Creek South  
 GPS: 40.4808101171896, -105.03934007138014

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 2,067.0  
 Average mosquitoes per trap/night: 137.8  
 Average Culex per trap/night: 63.5

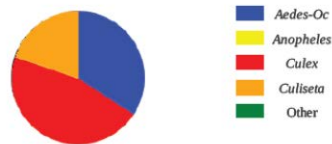
### Species collected and abundance:

<i>Aedes dorsalis</i>	400.0	19.4%
<i>Aedes increpitus</i>	5.0	0.2%
<i>Aedes melanimon</i>	2.0	0.1%
<i>Aedes vexans</i>	299.0	14.5%
<i>Culex pipiens</i>	22.0	1.1%
<i>Culex tarsalis</i>	930.0	45.0%
<i>Culiseta inornata</i>	409.0	19.8%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	706.0	34.2%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	952.0	46.1%
<i>Culiseta</i>	409.0	19.8%
Other	0.0	0.0%



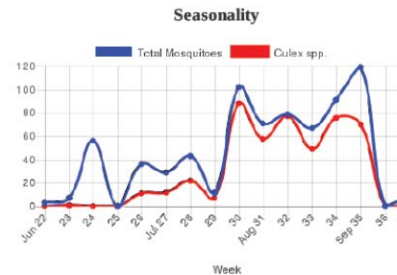
## FC-040

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Redwood  
 GPS: 40.60326002873993, -105.06553988903761

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 724.0  
 Average mosquitoes per trap/night: 48.3  
 Average Culex per trap/night: 31.4

### Species collected and abundance:

<i>Aedes dorsalis</i>	44.0	6.1%
<i>Aedes increpitus</i>	6.0	0.8%
<i>Aedes melanimon</i>	1.0	0.1%
<i>Aedes spp.</i>	2.0	0.3%
<i>Aedes vexans</i>	189.0	26.1%
<i>Culex pipiens</i>	74.0	10.2%
<i>Culex tarsalis</i>	397.0	54.8%
<i>Culiseta inornata</i>	11.0	1.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	242.0	33.4%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	471.0	65.1%
<i>Culiseta</i>	11.0	1.5%
Other	0.0	0.0%



## FC-040gr

Season: 05/01/2019 - 09/27/2019

Trap Type: Gravid Trap

Location: Redwood Gravid

GPS: 40.60326002873993, -105.06553016602993

Total number of trap/nights set: 16.0

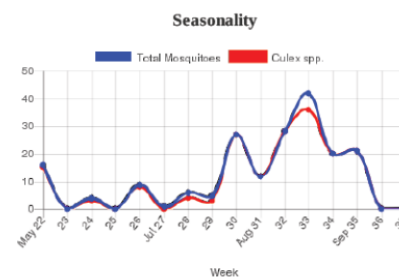
Total number of mosquitoes collected: 191.0

Average mosquitoes per trap/night: 11.9

Average Culex per trap/night: 11.1

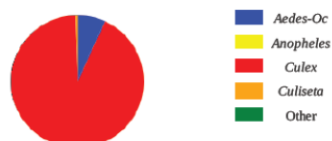
### Species collected and abundance:

<i>Aedes dorsalis</i>	1.0	0.5%
<i>Aedes vexans</i>	12.0	6.3%
<i>Culex pipiens</i>	177.0	92.7%
<i>Culiseta inornata</i>	1.0	0.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	13.0	6.8%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	177.0	92.7%
<i>Culiseta</i>	1.0	0.5%
Other	0.0	0.0%



## FC-041

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

Location: Fishback

GPS: 40.58794002990494, -105.10486006736755

Total number of trap/nights set: 15.0

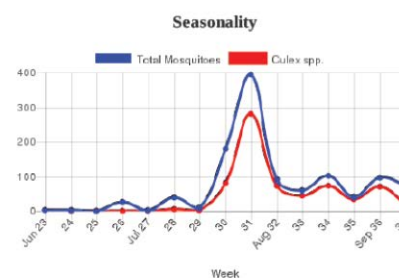
Total number of mosquitoes collected: 1,128.0

Average mosquitoes per trap/night: 75.2

Average Culex per trap/night: 45.9

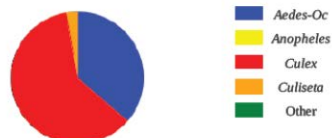
### Species collected and abundance:

<i>Aedes dorsalis</i>	8.0	0.7%
<i>Aedes inaequalis</i>	7.0	0.6%
<i>Aedes melanimon</i>	1.0	0.1%
<i>Aedes trivittatus</i>	19.0	1.7%
<i>Aedes vexans</i>	375.0	33.2%
<i>Culex pipiens</i>	143.0	12.7%
<i>Culex tarsalis</i>	545.0	48.3%
<i>Culiseta inornata</i>	30.0	2.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	410.0	36.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	688.0	61.0%
<i>Culiseta</i>	30.0	2.7%
Other	0.0	0.0%



## FC-046

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

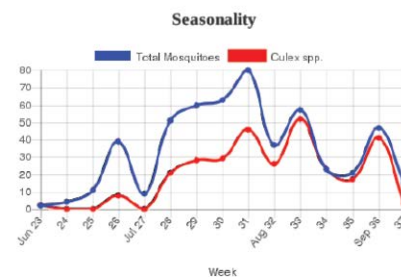
Location: 725 Westshore Court

GPS: 40.52983004046163, -105.06483983248472

Total number of trap/nights set: 16.0  
Total number of mosquitoes collected: 519.0  
Average mosquitoes per trap/night: 32.4  
Average Culex per trap/night: 18.5

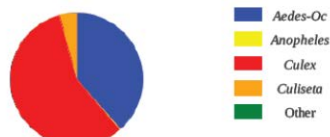
### Species collected and abundance:

<i>Aedes dorsalis</i>	7.0	1.3%
<i>Aedes inaeptus</i>	1.0	0.2%
<i>Aedes melanimon</i>	5.0	1.0%
<i>Aedes vexans</i>	187.0	36.0%
<i>Anopheles freeborni</i>	1.0	0.2%
<i>Culex pipiens</i>	48.0	9.2%
<i>Culex tarsalis</i>	248.0	47.8%
<i>Culiseta inornata</i>	22.0	4.2%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	200.0	38.5%
<i>Anopheles</i>	1.0	0.2%
<i>Culex</i>	296.0	57.0%
<i>Culiseta</i>	22.0	4.2%
Other	0.0	0.0%



## FC-047

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

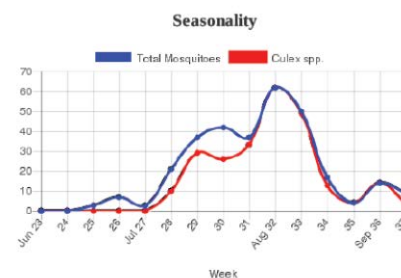
Location: Keenland and Twin Oak

GPS: 40.51550997850979, -105.05292009562254

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 306.0  
Average mosquitoes per trap/night: 20.4  
Average Culex per trap/night: 16.3

### Species collected and abundance:

<i>Aedes dorsalis</i>	2.0	0.7%
<i>Aedes melanimon</i>	1.0	0.3%
<i>Aedes vexans</i>	51.0	16.7%
<i>Anopheles freeborni</i>	1.0	0.3%
<i>Culex tarsalis</i>	244.0	79.7%
<i>Culiseta inornata</i>	7.0	2.3%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	54.0	17.6%
<i>Anopheles</i>	1.0	0.3%
<i>Culex</i>	244.0	79.7%
<i>Culiseta</i>	7.0	2.3%
Other	0.0	0.0%





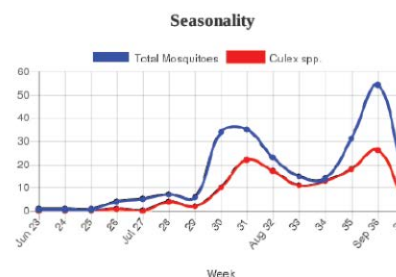
## FC-049

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Casa Grande and Downing  
 GPS: 40.573239949533054, -105.13949006795883

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 248.0  
 Average mosquitoes per trap/night: 16.5  
 Average Culex per trap/night: 8.6

### Species collected and abundance:

<i>Aedes inaeptus</i>	1.0	0.4%
<i>Aedes trivittatus</i>	1.0	0.4%
<i>Aedes vexans</i>	114.0	46.0%
<i>Culex pipiens</i>	27.0	10.9%
<i>Culex tarsalis</i>	102.0	41.1%
<i>Culiseta inornata</i>	3.0	1.2%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	116.0	46.8%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	129.0	52.0%
<i>Culiseta</i>	3.0	1.2%
Other	0.0	0.0%



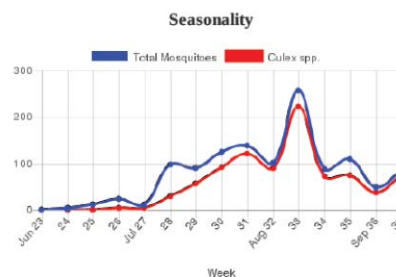
## FC-050

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Golden Meadows Ditch  
 GPS: 40.52954004037219, -105.05033008754252

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,191.0  
 Average mosquitoes per trap/night: 79.4  
 Average Culex per trap/night: 58.7

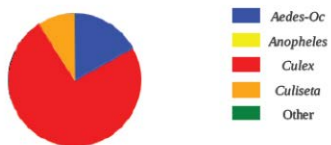
### Species collected and abundance:

<i>Aedes dorsalis</i>	3.0	0.3%
<i>Aedes inaeptus</i>	2.0	0.2%
<i>Aedes vexans</i>	197.0	16.5%
<i>Coquilletidia perturbans</i>	1.0	0.1%
<i>Culex pipiens</i>	337.0	28.3%
<i>Culex tarsalis</i>	543.0	45.6%
<i>Culiseta inornata</i>	108.0	9.1%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	202.0	17.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	880.0	73.9%
<i>Culiseta</i>	108.0	9.1%
Other	1.0	0.1%



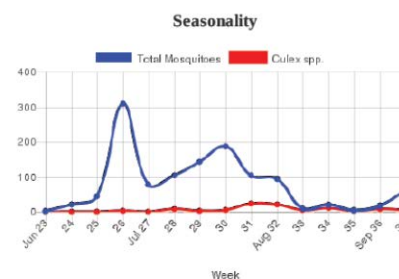
## FC-052

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 603 Giggald Way  
 GPS: 40.5616299281039, -105.08703008294106

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,206.0  
 Average mosquitoes per trap/night: 80.4  
 Average Culex per trap/night: 6.6

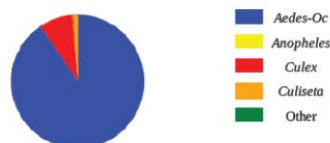
### Species collected and abundance:

<i>Aedes dorsalis</i>	4.0	0.3%
<i>Aedes increpitus</i>	7.0	0.6%
<i>Aedes melanimon</i>	16.0	1.3%
<i>Aedes spp.</i>	1.0	0.1%
<i>Aedes trivittatus</i>	99.0	8.2%
<i>Aedes vexans</i>	964.0	79.9%
<i>Culex pipiens</i>	4.0	0.3%
<i>Culex tarsalis</i>	95.0	7.9%
<i>Culiseta inornata</i>	16.0	1.3%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,091.0	90.5%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	99.0	8.2%
<i>Culiseta</i>	16.0	1.3%
Other	0.0	0.0%



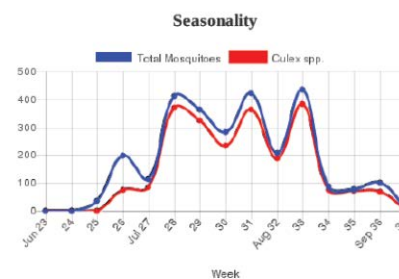
## FC-053

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Egret and Rookery  
 GPS: 40.4994200898768, -105.01182999461888

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 2,758.0  
 Average mosquitoes per trap/night: 183.9  
 Average Culex per trap/night: 150.2

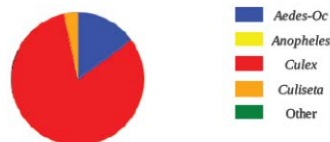
### Species collected and abundance:

<i>Aedes dorsalis</i>	28.0	1.0%
<i>Aedes increpitus</i>	1.0	0.0%
<i>Aedes melanimon</i>	4.0	0.1%
<i>Aedes vexans</i>	379.0	13.7%
<i>Culex pipiens</i>	50.0	1.8%
<i>Culex tarsalis</i>	2,203.0	79.9%
<i>Culiseta inornata</i>	93.0	3.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	412.0	14.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	2,253.0	81.7%
<i>Culiseta</i>	93.0	3.4%
Other	0.0	0.0%



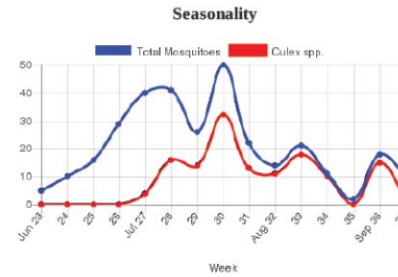
## FC-054

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 737 Parliament  
 GPS: 40.49997995372379, -105.06319999694824

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 316.0  
 Average mosquitoes per trap/night: 21.1  
 Average Culex per trap/night: 9.1

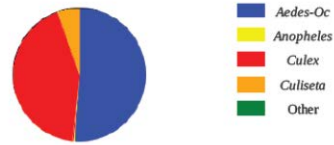
### Species collected and abundance:

<i>Aedes dorsalis</i>	15.0	4.7%
<i>Aedes vexans</i>	147.0	46.5%
<i>Anopheles freeborni</i>	1.0	0.3%
<i>Culex tarsalis</i>	136.0	43.0%
<i>Culiseta inornata</i>	17.0	5.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	162.0	51.3%
<i>Anopheles</i>	1.0	0.3%
<i>Culex</i>	136.0	43.0%
<i>Culiseta</i>	17.0	5.4%
Other	0.0	0.0%



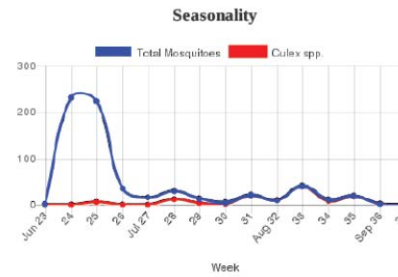
## FC-057

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Registry Ridge  
 GPS: 40.48438997678501, -105.10523993521929

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 665.0  
 Average mosquitoes per trap/night: 44.3  
 Average Culex per trap/night: 8.1

### Species collected and abundance:

<i>Aedes dorsalis</i>	508.0	76.4%
<i>Aedes melanimon</i>	6.0	0.9%
<i>Aedes vexans</i>	25.0	3.8%
<i>Coquillettidia perturbans</i>	1.0	0.2%
<i>Culex tarsalis</i>	122.0	18.3%
<i>Culiseta inornata</i>	3.0	0.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	539.0	81.1%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	122.0	18.3%
<i>Culiseta</i>	3.0	0.5%
Other	1.0	0.2%



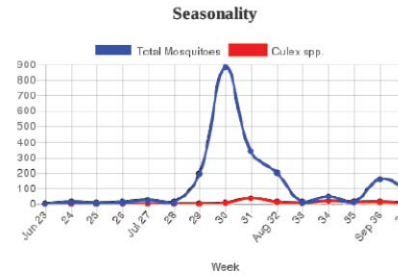
## FC-058

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Spring Creek Trail-- Michener Dr  
 GPS: 40.54883989155028, -105.12533001601697

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 2,029.0  
 Average mosquitoes per trap/night: 135.3  
 Average Culex per trap/night: 7.4

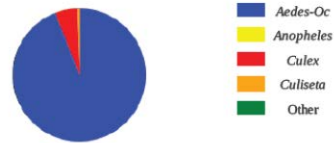
### Species collected and abundance:

<i>Aedes dorsalis</i>	2.0	0.1%
<i>Aedes increpitus</i>	32.0	1.6%
<i>Aedes vexans</i>	1,873.0	92.3%
<i>Culex pipiens</i>	10.0	0.5%
<i>Culex tarsalis</i>	101.0	5.0%
<i>Culiseta inornata</i>	11.0	0.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,907.0	94.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	111.0	5.5%
<i>Culiseta</i>	11.0	0.5%
Other	0.0	0.0%



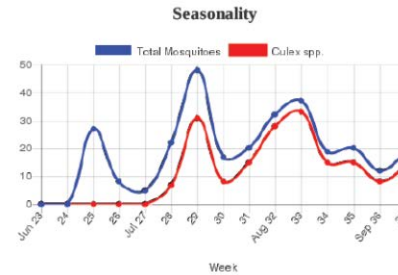
## FC-059

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Springwood and Lochwood  
 GPS: 40.5426000124595, -105.0460398942232

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 285.0  
 Average mosquitoes per trap/night: 19.0  
 Average Culex per trap/night: 11.5

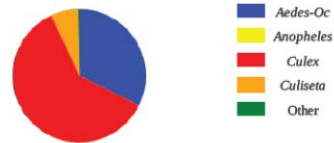
### Species collected and abundance:

<i>Aedes increpitus</i>	3.0	1.1%
<i>Aedes vexans</i>	89.0	31.2%
<i>Coquillettidia perturbans</i>	1.0	0.4%
<i>Culex pipiens</i>	20.0	7.0%
<i>Culex tarsalis</i>	153.0	53.7%
<i>Culiseta inornata</i>	19.0	6.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	92.0	32.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	173.0	60.7%
<i>Culiseta</i>	19.0	6.7%
Other	1.0	0.4%



## FC-060

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

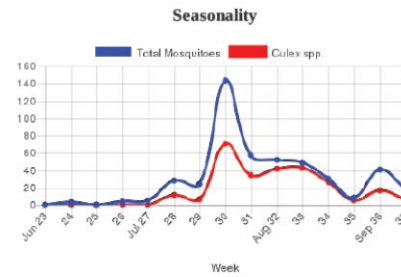
Location: 808 Ponderosa

GPS: 40.548700028018544, -105.12018989771605

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 463.0  
Average mosquitoes per trap/night: 30.9  
Average Culex per trap/night: 17.5

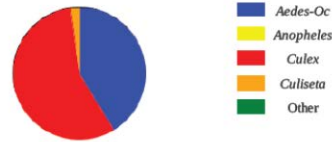
### Species collected and abundance:

<i>Aedes increpitus</i>	1.0	0.2%
<i>Aedes vexans</i>	190.0	41.0%
<i>Culex pipiens</i>	110.0	23.8%
<i>Culex tarsalis</i>	152.0	32.8%
<i>Culiseta inornata</i>	10.0	2.2%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	191.0	41.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	262.0	56.6%
<i>Culiseta</i>	10.0	2.2%
Other	0.0	0.0%



## FC-061

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

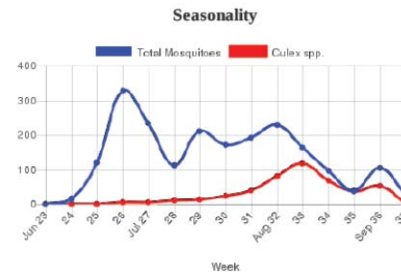
Location: Holley Plant Research Center

GPS: 40.56879993041706, -105.09164985269308

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 2,041.0  
Average mosquitoes per trap/night: 136.1  
Average Culex per trap/night: 30.2

### Species collected and abundance:

<i>Aedes dorsalis</i>	8.0	0.4%
<i>Aedes increpitus</i>	25.0	1.2%
<i>Aedes melanimon</i>	5.0	0.2%
<i>Aedes spp.</i>	1.0	0.0%
<i>Aedes trivittatus</i>	24.0	1.2%
<i>Aedes vexans</i>	1,506.0	73.8%
<i>Culex pipiens</i>	32.0	1.6%
<i>Culex tarsalis</i>	421.0	20.6%
<i>Culiseta inornata</i>	19.0	0.9%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,569.0	76.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	453.0	22.2%
<i>Culiseta</i>	19.0	0.9%
Other	0.0	0.0%



## FC-062

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

Location: Water's Edge at Blue Mesa

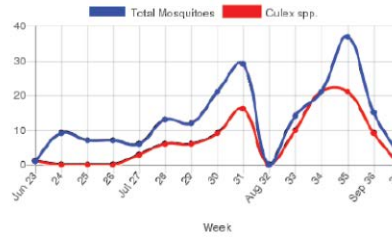
GPS: 40.542779889722866, -105.08740995079279

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 195.0  
Average mosquitoes per trap/night: 13.0  
Average Culex per trap/night: 6.8

### Species collected and abundance:

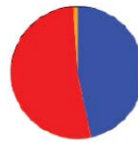
<i>Aedes dorsalis</i>	3.0	1.5%
<i>Aedes vexans</i>	88.0	45.1%
<i>Culex pipiens</i>	5.0	2.6%
<i>Culex tarsalis</i>	97.0	49.7%
<i>Culiseta inornata</i>	2.0	1.0%

### Seasonality



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	91.0	46.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	102.0	52.3%
<i>Culiseta</i>	2.0	1.0%
Other	0.0	0.0%



■ *Aedes-Oc*  
■ *Anopheles*  
■ *Culex*  
■ *Culiseta*  
■ Other

## FC-063

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

Location: Red Fox Meadows

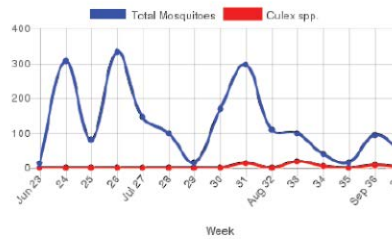
GPS: 40.565679974786285, -105.10485000908375

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 1,872.0  
Average mosquitoes per trap/night: 124.8  
Average Culex per trap/night: 3.3

### Species collected and abundance:

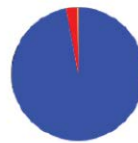
<i>Aedes dorsalis</i>	4.0	0.2%
<i>Aedes increpitus</i>	17.0	0.9%
<i>Aedes melanimon</i>	1.0	0.1%
<i>Aedes vexans</i>	1,795.0	95.9%
<i>Culex pipiens</i>	7.0	0.4%
<i>Culex tarsalis</i>	43.0	2.3%
<i>Culiseta inornata</i>	5.0	0.3%

### Seasonality



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,817.0	97.1%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	50.0	2.7%
<i>Culiseta</i>	5.0	0.3%
Other	0.0	0.0%



■ *Aedes-Oc*  
■ *Anopheles*  
■ *Culex*  
■ *Culiseta*  
■ Other



## FC-063gr

Season: 05/01/2019 - 09/27/2019

Trap Type: Gravid Trap

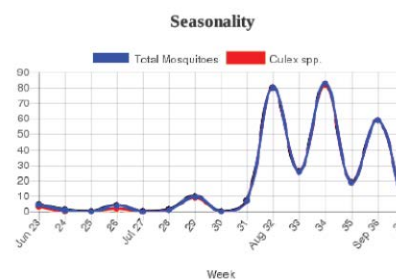
Location: Red Fox Meadows Gravid

GPS: 40.565679974786285, -105.10504983365536

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 300.0  
Average mosquitoes per trap/night: 20.0  
Average Culex per trap/night: 19.5

### Species collected and abundance:

*Aedes vexans* 7.0 2.3%  
*Culex pipiens* 293.0 97.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	7.0	2.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	293.0	97.7%
<i>Culiseta</i>	0.0	0.0%
Other	0.0	0.0%



## FC-064

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

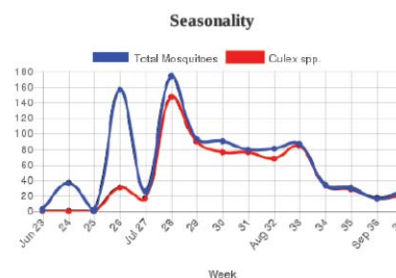
Location: West Chase

GPS: 40.49867997125427, -105.0298001244664

Total number of trap/nights set: 15.0  
Total number of mosquitoes collected: 934.0  
Average mosquitoes per trap/night: 62.3  
Average Culex per trap/night: 45.6

### Species collected and abundance:

*Aedes dorsalis* 57.0 6.1%  
*Aedes melanimon* 7.0 0.7%  
*Aedes vexans* 158.0 16.9%  
*Culex pipiens* 19.0 2.0%  
*Culex tarsalis* 665.0 71.2%  
*Culiseta inornata* 28.0 3.0%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	222.0	23.8%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	684.0	73.2%
<i>Culiseta</i>	28.0	3.0%
Other	0.0	0.0%



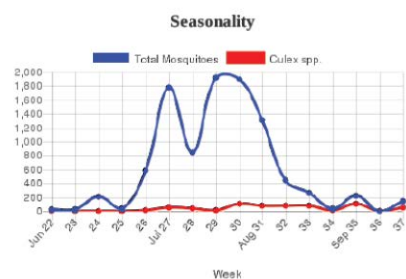
## FC-066

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Prospect Ponds  
 GPS: 40.558729973681025, -105.02318009734154

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 9,776.0  
 Average mosquitoes per trap/night: 651.7  
 Average Culex per trap/night: 43.5

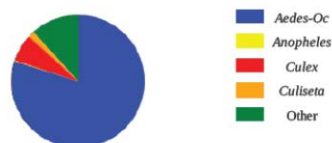
### Species collected and abundance:

<i>Aedes dorsalis</i>	121.0	1.2%
<i>Aedes inaeptus</i>	88.0	0.9%
<i>Aedes melanimon</i>	443.0	4.5%
<i>Aedes spp.</i>	18.0	0.2%
<i>Aedes trivittatus</i>	1.0	0.0%
<i>Aedes vexans</i>	7,136.0	73.0%
<i>Anopheles freeborni</i>	19.0	0.2%
<i>Coquilletidia perturbans</i>	1,147.0	11.7%
<i>Culex pipiens</i>	271.0	2.8%
<i>Culex tarsalis</i>	382.0	3.9%
<i>Culiseta inornata</i>	150.0	1.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	7,807.0	79.9%
<i>Anopheles</i>	19.0	0.2%
<i>Culex</i>	653.0	6.7%
<i>Culiseta</i>	150.0	1.5%
Other	1,147.0	11.7%



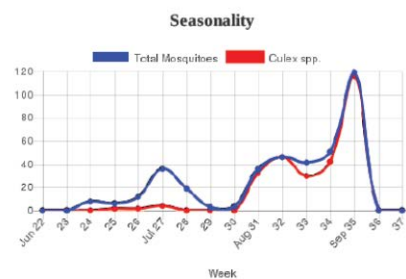
## FC-066gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: Prospect Ponds Gravid  
 GPS: 40.558729973681025, -105.02318009734154

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 381.0  
 Average mosquitoes per trap/night: 25.4  
 Average Culex per trap/night: 18.3

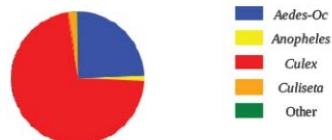
### Species collected and abundance:

<i>Aedes dorsalis</i>	5.0	1.3%
<i>Aedes inaeptus</i>	1.0	0.3%
<i>Aedes melanimon</i>	6.0	1.6%
<i>Aedes vexans</i>	81.0	21.3%
<i>Anopheles freeborni</i>	5.0	1.3%
<i>Coquilletidia perturbans</i>	1.0	0.3%
<i>Culex pipiens</i>	274.0	71.9%
<i>Culiseta inornata</i>	8.0	2.1%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	93.0	24.4%
<i>Anopheles</i>	5.0	1.3%
<i>Culex</i>	274.0	71.9%
<i>Culiseta</i>	8.0	2.1%
Other	1.0	0.3%



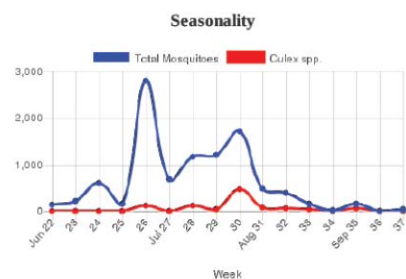
## FC-067

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Poudre River Trail  
 GPS: 40.578810058161835, -105.05592014640568

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 9,969.0  
 Average mosquitoes per trap/night: 664.6  
 Average Culex per trap/night: 70.1

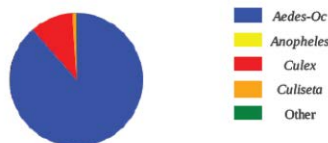
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	42.0	0.4%
<i>Aedes increpitus</i>	1,487.0	14.9%
<i>Aedes melanimon</i>	34.0	0.3%
<i>Aedes trivittatus</i>	6.0	0.1%
<i>Aedes vexans</i>	7,252.0	72.7%
<i>Coquilletidia perturbans</i>	12.0	0.1%
<i>Culex pipiens</i>	47.0	0.5%
<i>Culex tarsalis</i>	1,004.0	10.1%
<i>Culiseta inornata</i>	85.0	0.9%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	8,821.0	88.5%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	1,051.0	10.5%
<i>Culiseta</i>	85.0	0.9%
Other	12.0	0.1%



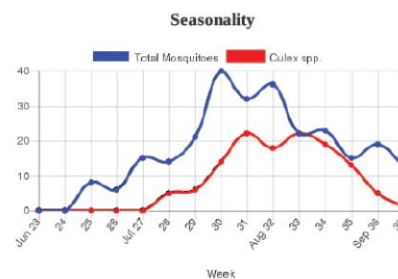
## FC-068

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 5029 Crest Dr  
 GPS: 40.516000124446485, -105.08547004312277

Total number of trap/nights set: 14.0  
 Total number of mosquitoes collected: 264.0  
 Average mosquitoes per trap/night: 18.9  
 Average Culex per trap/night: 8.9

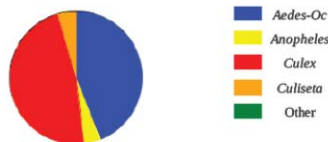
### Species collected and abundance:

Species	Number	Percent
<i>Aedes vexans</i>	116.0	43.9%
<i>Anopheles freeborni</i>	11.0	4.2%
<i>Culex pipiens</i>	6.0	2.3%
<i>Culex tarsalis</i>	119.0	45.1%
<i>Culiseta inornata</i>	12.0	4.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	116.0	43.9%
<i>Anopheles</i>	11.0	4.2%
<i>Culex</i>	125.0	47.3%
<i>Culiseta</i>	12.0	4.5%
Other	0.0	0.0%



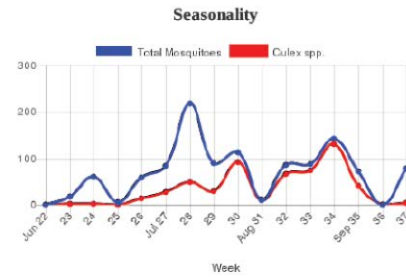
## FC-069

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Linden Lake  
 GPS: 40.61438002063563, -105.0527001544833

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,127.0  
 Average mosquitoes per trap/night: 75.1  
 Average Culex per trap/night: 36.3

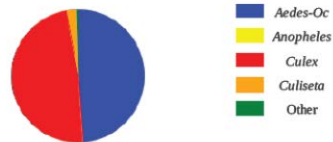
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	13.0	1.2%
<i>Aedes increpitus</i>	52.0	4.6%
<i>Aedes melanimon</i>	5.0	0.4%
<i>Aedes vexans</i>	481.0	42.7%
<i>Coquilletidia perturbans</i>	5.0	0.4%
<i>Culex pipiens</i>	46.0	4.1%
<i>Culex tarsalis</i>	499.0	44.3%
<i>Culiseta inornata</i>	26.0	2.3%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	551.0	48.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	545.0	48.4%
<i>Culiseta</i>	26.0	2.3%
Other	5.0	0.4%



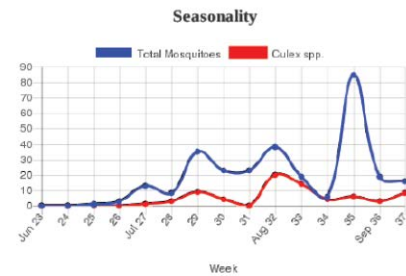
## FC-071

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Silvergate Rd  
 GPS: 40.52733008634481, -105.10821014642715

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 289.0  
 Average mosquitoes per trap/night: 19.3  
 Average Culex per trap/night: 4.8

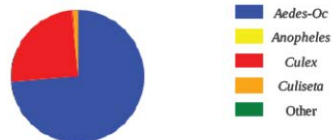
### Species collected and abundance:

Species	Number	Percent
<i>Aedes dorsalis</i>	1.0	0.3%
<i>Aedes increpitus</i>	2.0	0.7%
<i>Aedes vexans</i>	210.0	72.7%
<i>Culex pipiens</i>	8.0	2.8%
<i>Culex tarsalis</i>	64.0	22.1%
<i>Culiseta inornata</i>	4.0	1.4%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	213.0	73.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	72.0	24.9%
<i>Culiseta</i>	4.0	1.4%
Other	0.0	0.0%



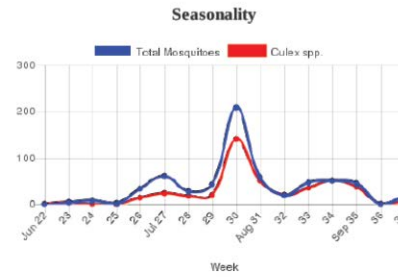
## FC-072

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 422 Lake Dr  
 GPS: 40.569530106375986, -105.07116984575985

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 627.0  
 Average mosquitoes per trap/night: 41.8  
 Average Culex per trap/night: 27.9

### Species collected and abundance:

<i>Aedes dorsalis</i>	3.0	0.5%
<i>Aedes increpitus</i>	2.0	0.3%
<i>Aedes trivittatus</i>	1.0	0.2%
<i>Aedes vexans</i>	147.0	23.4%
<i>Coquilletidia perturbans</i>	1.0	0.2%
<i>Culex pipiens</i>	29.0	4.6%
<i>Culex tarsalis</i>	389.0	62.0%
<i>Culiseta inornata</i>	55.0	8.8%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	153.0	24.4%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	418.0	66.7%
<i>Culiseta</i>	55.0	8.8%
Other	1.0	0.2%



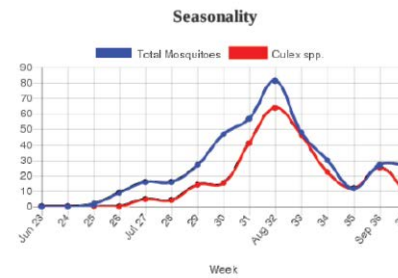
## FC-073

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: 118 N Grant  
 GPS: 40.58605002230683, -105.08888985961676

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 399.0  
 Average mosquitoes per trap/night: 26.6  
 Average Culex per trap/night: 17.2

### Species collected and abundance:

<i>Aedes dorsalis</i>	2.0	0.5%
<i>Aedes melanimon</i>	1.0	0.3%
<i>Aedes trivittatus</i>	1.0	0.3%
<i>Aedes vexans</i>	120.0	30.1%
<i>Culex pipiens</i>	41.0	10.3%
<i>Culex tarsalis</i>	217.0	54.4%
<i>Culiseta inornata</i>	17.0	4.3%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	124.0	31.1%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	258.0	64.7%
<i>Culiseta</i>	17.0	4.3%
Other	0.0	0.0%



## FC-074

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

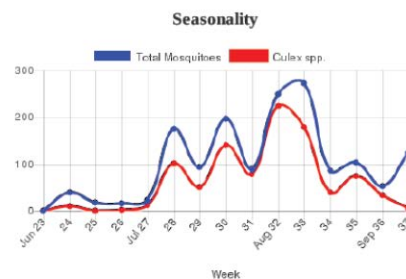
Location: Rock Creek

GPS: 40.51431990047902, -105.00248987227678

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 1,536.0  
 Average mosquitoes per trap/night: 102.4  
 Average Culex per trap/night: 63.5

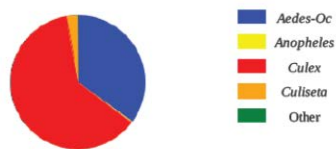
### Species collected and abundance:

<i>Aedes dorsalis</i>	26.0	1.7%
<i>Aedes increpitus</i>	1.0	0.1%
<i>Aedes melanimon</i>	4.0	0.3%
<i>Aedes spp.</i>	2.0	0.1%
<i>Aedes vexans</i>	505.0	32.9%
<i>Anopheles freeborni</i>	2.0	0.1%
<i>Anopheles spp.</i>	2.0	0.1%
<i>Coquilletidia perturbans</i>	1.0	0.1%
<i>Culex pipiens</i>	26.0	1.7%
<i>Culex tarsalis</i>	927.0	60.4%
<i>Culiseta inornata</i>	40.0	2.6%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	538.0	35.0%
<i>Anopheles</i>	4.0	0.3%
<i>Culex</i>	953.0	62.0%
<i>Culiseta</i>	40.0	2.6%
Other	1.0	0.1%



## FC-075

Season: 05/01/2019 - 09/27/2019

Trap Type: CDC Light Trap

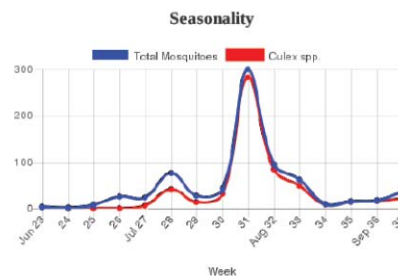
Location: Sage Creek North

GPS: 40.511379917024655, -105.01986991614105

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 748.0  
 Average mosquitoes per trap/night: 49.9  
 Average Culex per trap/night: 37.7

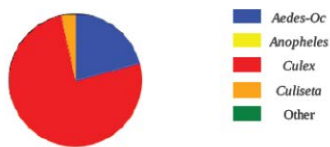
### Species collected and abundance:

<i>Aedes dorsalis</i>	5.0	0.7%
<i>Aedes vexans</i>	151.0	20.2%
<i>Culex pipiens</i>	78.0	10.4%
<i>Culex tarsalis</i>	488.0	65.2%
<i>Culiseta inornata</i>	26.0	3.5%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	156.0	20.9%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	566.0	75.7%
<i>Culiseta</i>	26.0	3.5%
Other	0.0	0.0%





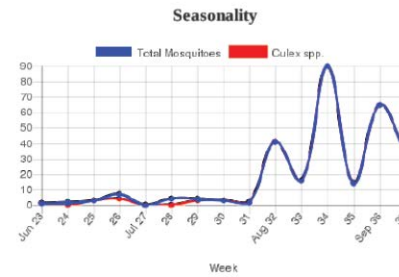
## FC-075gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: Sage Creek North Gravid  
 GPS: 40.511379917024655, -105.02936996519566

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 287.0  
 Average mosquitoes per trap/night: 19.1  
 Average Culex per trap/night: 18.5

### Species collected and abundance:

<i>Aedes vexans</i>	5.0	1.7%
<i>Culex pipiens</i>	277.0	96.5%
<i>Culiseta inornata</i>	5.0	1.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	5.0	1.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	277.0	96.5%
<i>Culiseta</i>	5.0	1.7%
Other	0.0	0.0%



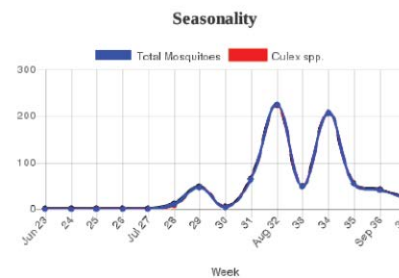
## FC-088gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: English Ranch Park Gravid  
 GPS: 40.53330994364783, -105.0305300205946

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 728.0  
 Average mosquitoes per trap/night: 48.5  
 Average Culex per trap/night: 48.1

### Species collected and abundance:

<i>Aedes vexans</i>	5.0	0.7%
<i>Culex pipiens</i>	717.0	98.5%
<i>Culex tarsalis</i>	4.0	0.5%
<i>Culiseta inornata</i>	2.0	0.3%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	5.0	0.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	721.0	99.0%
<i>Culiseta</i>	2.0	0.3%
Other	0.0	0.0%



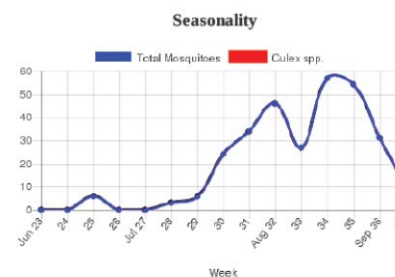
## FC-089gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: Kunz Ct. and Brook Dr. Gravid  
 GPS: 40.53631011931944, -105.10056015104055

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 299.0  
 Average mosquitoes per trap/night: 19.9  
 Average Culex per trap/night: 19.9

### Species collected and abundance:

*Culex pipiens* 299.0 100.0%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	0.0	0.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	299.0	100.0%
<i>Culiseta</i>	0.0	0.0%
Other	0.0	0.0%



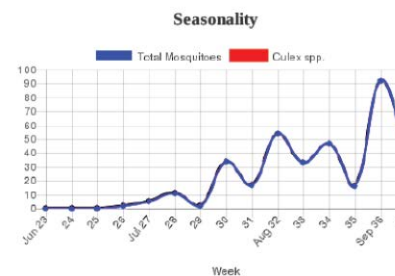
## FC-090gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: Mountain Grandview Cemetery Gravid  
 GPS: 40.58195995773713, -105.111360065639

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 357.0  
 Average mosquitoes per trap/night: 23.8  
 Average Culex per trap/night: 23.8

### Species collected and abundance:

*Culex pipiens* 357.0 100.0%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	0.0	0.0%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	357.0	100.0%
<i>Culiseta</i>	0.0	0.0%
Other	0.0	0.0%



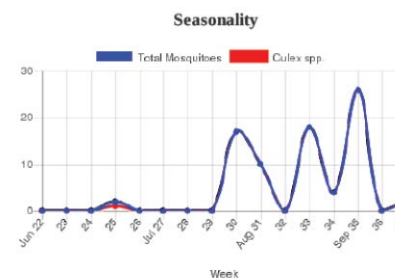
## FC-091gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: PVH Gravid  
 GPS: 40.570520046200166, -105.05456998944281

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 79.0  
 Average mosquitoes per trap/night: 5.3  
 Average Culex per trap/night: 5.2

### Species collected and abundance:

*Aedes vexans* 1.0 1.3%  
*Culex pipiens* 78.0 98.7%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1.0	1.3%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	78.0	98.7%
<i>Culiseta</i>	0.0	0.0%
Other	0.0	0.0%



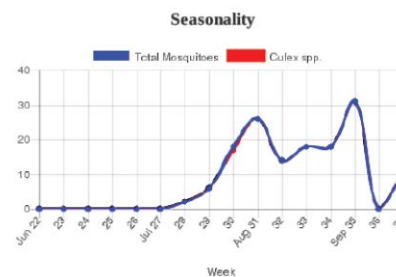
## FC-092gr

Season: 05/01/2019 - 09/27/2019  
 Trap Type: Gravid Trap  
 Location: Udal Natural Gravid  
 GPS: 40.58407007831015, -105.06496991962193

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 143.0  
 Average mosquitoes per trap/night: 9.5  
 Average Culex per trap/night: 9.5

### Species collected and abundance:

<i>Aedes vexans</i>	1.0	0.7%
<i>Culex pipiens</i>	135.0	94.4%
<i>Culex tarsalis</i>	7.0	4.9%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1.0	0.7%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	142.0	99.3%
<i>Culiseta</i>	0.0	0.0%
Other	0.0	0.0%



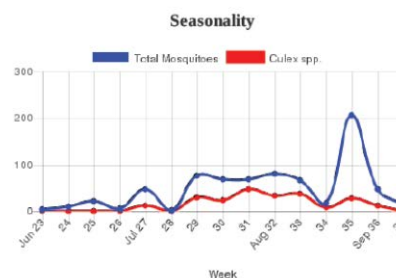
## FC-093

Season: 05/01/2019 - 09/27/2019  
 Trap Type: CDC Light Trap  
 Location: Lopez Elementary  
 GPS: 40.53186000594886, -105.0882501527667

Total number of trap/nights set: 15.0  
 Total number of mosquitoes collected: 738.0  
 Average mosquitoes per trap/night: 49.2  
 Average Culex per trap/night: 15.5

### Species collected and abundance:

<i>Aedes dorsalis</i>	11.0	1.5%
<i>Aedes increpitus</i>	6.0	0.8%
<i>Aedes melanimon</i>	1.0	0.1%
<i>Aedes spp.</i>	1.0	0.1%
<i>Aedes vexans</i>	479.0	64.9%
<i>Culex pipiens</i>	4.0	0.5%
<i>Culex tarsalis</i>	229.0	31.0%
<i>Culiseta inornata</i>	7.0	0.9%



### Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	498.0	67.5%
<i>Anopheles</i>	0.0	0.0%
<i>Culex</i>	233.0	31.6%
<i>Culiseta</i>	7.0	0.9%
Other	0.0	0.0%



## *Appendix 2: Larimer County Adult Sample Pool Positive Results and Locations*



### **2019 WNV Positive Pools**

**Start Date:** 05/01/2019    **End Date:** 09/27/2019

#### **Berthoud**

<b>Trap Location</b>	<b>Total Positive Pools</b>
Berthoud East	0
Berthoud North	0
Berthoud Park	0
Berthoud Point	0
Berthoud West	0

**Total Positive: 0**



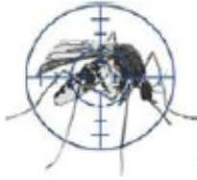
### **2019 WNV Positive Pools**

**Start Date:** 05/01/2019    **End Date:** 09/27/2019

#### **Loveland**

<b>Trap Location</b>	<b>Total Positive Pools</b>
7 Lakes Park	0
9th and Des Moines	1
Big Thompson	0
Boyd Lake	1
Cattail Pond	2
Cr 20 and 9	0
Horseshoe Penninsula	1
Jill Drive Pond	1

**Total Positive: 6**



## 2019 WNV Positive Pools

Start Date: 05/01/2019    End Date: 09/27/2019

### Fort Collins

Trap Location	Total Positive Pools
118 N Grant	0
3001 San Luis	1
422 Lake Dr	1
5029 Crest Dr	0
603 Gilgalad Way	0
725 Westshore Court	0
737 Parliament	0
808 Ponderosa	0
Ben's Park	0
Ben's Park Gravid	2
Bighorn	0
Boltz	0
Casa Grande and Downing	0
Chelsea Ridge	1
Country Club	2
Edora Park	1
Egret and Rookery	2
English Ranch Park Gravid	3
FC Visitors Center	1
Fishback	0
Fossil Creek South	1
Golden Current	0
Golden Meadows Ditch	3
Hemlock	1
Holley Plant Research Center	2
Keenland and Twin Oak	0
Kunz Ct. and Brook Dr. Gravid	1

Trap Location	Total Positive Pools
Linden Lake	2
Lochside Lane	1
Lopez Elementary	0
Magic Carpet	0
Mountain Grandview Cemetery Gravid	0
N. Linden	0
Poudre River Trail	1
Prospect Ponds	2
Prospect Ponds Gravid	2
PVH Gravid	1
Red Fox Meadows	0
Red Fox Meadows Gravid	2
Redwood	2
Redwood Gravid	1
Registry Ridge	0
Rock Creek	1
Sage Creek North	0
Sage Creek North Gravid	3
Silvergate Rd	0
Spring Creek Trail-- Michener Dr	0
Springwood and Lochwood	0
Stuart and Dorset	0
Udall Natural Gravid	1
Water's Edge at Blue Mesa	0
West Chase	0
Willow Springs	1
Total Positive: 42	



## Appendix 3: Ground Adult Mosquito Control Application Data



### Ground Adulticide Applications

Start Date: 05/01/2019 End Date: 09/27/2019

Fort Collins

Month	Date	Municipality	Chemical	Mix Ratio	Trip Miles	Spray Miles	Spray Acres	Gallons Sprayed
<b>FC_Spray19_01 Applications</b>								
September 2019	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	19.8	14.8	536.7	4.1
<i>Total Aqua Kontrol 30-30 Applied:</i>								4.1
<i>FC_Spray19_01 Totals:</i>					19.8	14.8	536.7	4.1
<b>FC_Spray19_04 Applications</b>								
September 2019	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	11.2	10.8	392.0	3.0
<i>Total Aqua Kontrol 30-30 Applied:</i>								3.0
<i>FC_Spray19_04 Totals:</i>					11.2	10.8	392.0	3.0
<b>FC_Spray19_05 Applications</b>								
September 2019	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	17.3	15.2	551.9	4.2
<i>Total Aqua Kontrol 30-30 Applied:</i>								4.2
<i>FC_Spray19_05 Totals:</i>					17.3	15.2	551.9	4.2
<b>FC_Spray19_07 Applications</b>								
September 2019	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	20.2	14.5	525.4	4.1
	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	2.8	2.1	76.4	0.6
	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	20.7	15.3	556.3	4.6
	09/08/2019		Aqua Kontrol 30-30 (73748-11)	1:5	8.1	6.1	222.5	1.7
<i>Total Aqua Kontrol 30-30 Applied:</i>								11.0
<i>FC_Spray19_07 Totals:</i>					51.7	38.0	1,380.6	11.0
<b>LC_Spray19_01 Applications</b>								
September 2019	09/08/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	18.2	13.0	471.6	3.7
<i>Total Aqua Kontrol 30-30 Applied:</i>								3.7
<i>LC_Spray19_01 Totals:</i>					18.2	13.0	471.6	3.7
<i>Grand Totals:</i>					118.1	91.7	3,332.8	26.0



## Ground Adulticide Applications

Start Date: 05/01/2019 End Date: 09/27/2019

Larimer County

Month	Date	Municipality	Chemical	Mix Ratio	Trip Miles	Spray Miles	Spray Acres	Gallons Sprayed
<b>LHOA Greenstone HOA Spray Zone Applications</b>								
June 2019	06/11/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.9	2.8	102.2	1.0
	06/25/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.7	2.7	98.5	1.0
July 2019	07/02/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	4.4	3.1	110.9	1.2
	07/09/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.7	2.7	99.3	1.0
	07/16/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.7	2.7	97.4	1.0
	07/23/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.6	2.7	97.4	0.7
	07/30/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.6	2.7	98.2	0.8
August 2019	08/06/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.7	2.7	97.8	0.8
	08/13/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.6	2.8	100.0	0.8
<i>Total Aqua Kontrol 30-30 Applied:</i>								<b>8.3</b>
<b>LHOA Greenstone HOA Spray Zone Totals:</b>					<b>34.0</b>	<b>24.8</b>	<b>901.7</b>	<b>8.3</b>
<b>LHOA Ridgewood Hills Spray Zone Applications</b>								
July 2019	07/11/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	7.1	5.3	193.8	2.0
August 2019	08/28/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	9.9	6.7	245.1	1.9
<i>Total Aqua Kontrol 30-30 Applied:</i>								<b>3.9</b>
<b>LHOA Ridgewood Hills Spray Zone Totals:</b>					<b>17.0</b>	<b>12.1</b>	<b>438.9</b>	<b>3.9</b>
<b>LHOA Willow Springs Spray Zone Applications</b>								
June 2019	06/26/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	4.0	2.6	93.8	1.0
July 2019	07/11/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	4.1	2.9	106.5	1.1
	07/24/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	5.5	3.5	128.7	1.0
	07/31/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	0.0	2.5	90.9	1.0
<i>Total Aqua Kontrol 30-30 Applied:</i>								<b>4.0</b>
<b>LHOA Willow Springs Spray Zone Totals:</b>					<b>13.6</b>	<b>11.6</b>	<b>420.0</b>	<b>4.0</b>

Month	Date	Municipality	Chemical	Mix Ratio	Trip Miles	Spray Miles	Spray Acres	Gallons Sprayed
LHOA Lindenwood HOA Spray Zone Applications								
July 2019	07/17/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	2.9	2.3	82.5	0.9
	07/31/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	0.0	2.2	80.0	0.9
August 2019	08/14/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	2.9	2.3	84.0	0.6
	08/21/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	3.0	2.3	84.7	0.7
	08/28/2019	N/A	Aqua Kontrol 30-30 (73748-11)	1:5	2.9	2.3	84.4	0.6
<i>Total Aqua Kontrol 30-30 Applied:</i>								<i>3.7</i>
<i>LHOA Lindenwood HOA Spray Zone Totals:</i>					<i>11.7</i>	<i>11.4</i>	<i>415.6</i>	<i>3.7</i>