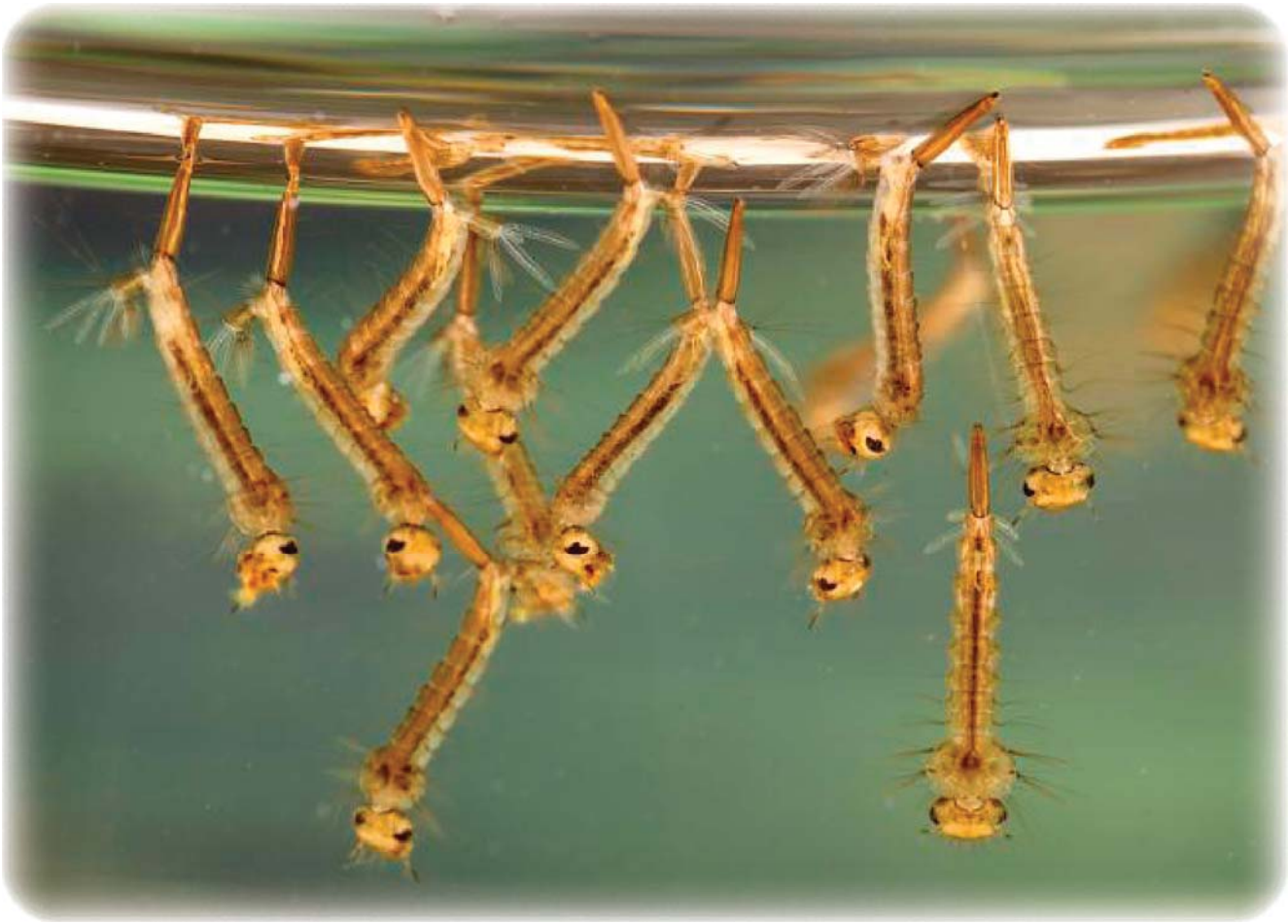
2006 Annual Report

City of Fort Collins

Mosquito Control Program



October 2006

Colorado Mosquito Control, Inc.

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On The Cover:

Culex mosquito larvae feed at the water surface. These disease-vector mosquito larvae will soon pupate and emerge as adult mosquitoes capable of transmitting West Nile Virus and other mosquito-borne encephalitides to birds, horses and humans. To date, over 2,700 human cases with 87 deaths have been reported for 2006 in the United States.

Colorado Mosquito Control, Inc.

City of Fort Collins
Mosquito Management Program

Annual Report 2006

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City of Fort Collins Mosquito Management Program
Mission Statement

The City of Fort Collins completed their 3rd year of cost effective bio-rational integrated mosquito control. The need to protect residents and visitors within the City of Fort Collins from the health risks, severe annoyance and discomfort associated with biting mosquitoes is a chronic annual problem. If left unmanaged residents residing throughout large sections of the city would be burdened by mosquitoes resulting in decrease quality of life and ability to enjoy outdoor activities.

The objective of the City of Fort Collins Mosquito Management Program is to utilize trained field biologists to suppress the number of disease-vectoring mosquitoes, in the aquatic larval habitat. This reduces the potential for mosquitoes to emerge from the water to feed on and possibly infect the residents of Fort Collins. The City of Fort Collins monitors adult mosquito populations via a surveillance trapping network to enable a proactive response to suppress vector mosquito populations prior to a public health emergency outbreak. This goal enables a decline in overall mosquito populations to an acceptable "annoyance level", while reducing the threat of mosquito borne disease transmission, at the least possible cost, and with the least possible impact on the people and natural environment.

CMC Objectives

CMC employs trained field and surveillance technicians who observe constantly changing mosquito populations to enable quick response to variation in environmental variables.

Colorado Mosquito Control, Inc. as the contractor for the City of Fort Collins Mosquito Management Programs will use proven scientific integrated pest management (IPM) methods of survey, inspection, diagnosis, biological/biochemical controls, and limited low-toxicity pesticide applications to professionally accomplish the objectives of the program. All of the methods and materials utilized have been reviewed and registered by the U.S. EPA, Centers for Disease Control, the Colorado Department of Agriculture and the American Mosquito Control Association.

Program Background

In 2006, the City of Fort Collins contracted Colorado Mosquito Control, Inc. to continue an Integrated Pest Management Program to protect residents from mosquito annoyance and West Nile Virus transmission. The City has maintained an IPM program for mosquito management since 2004 with Colorado Mosquito Control, Inc. In addition to reducing the overall mosquito populations, contracted services decreased the need for municipal personnel to perform inspection and larvicide applications. This ultimately provided a cost savings to the city in terms of payroll, vehicle fleet expenses, control product costs and personnel to handle public relations.

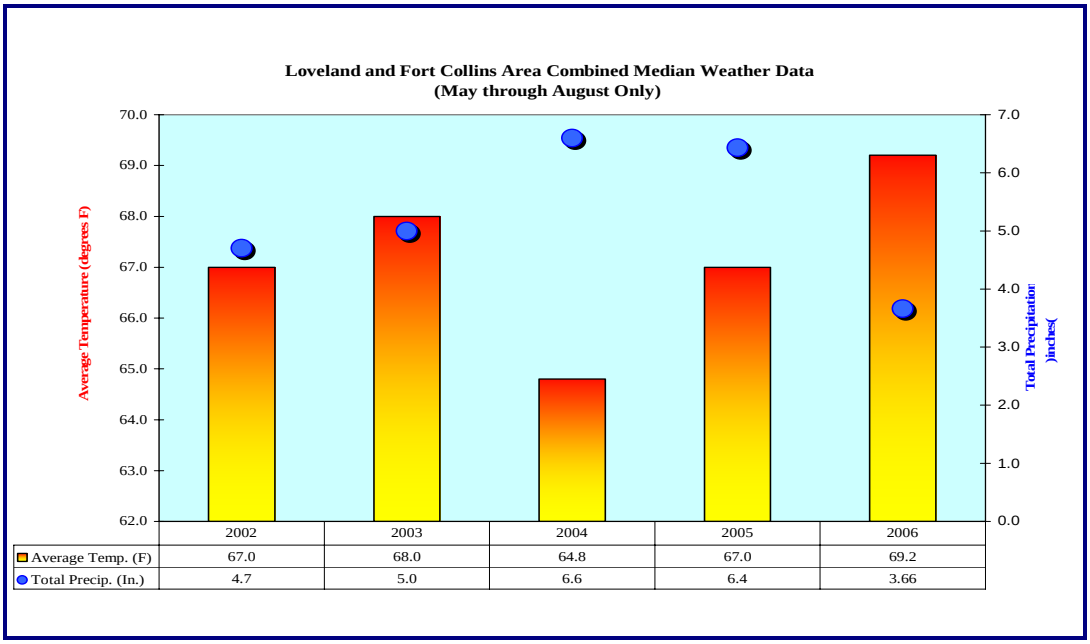
This environmentally friendly program always uses cultural and biological control choices first, such as naturally occurring bacteria. These efforts are all designed to reduce target mosquito populations to below established disease thresholds.

The 2006 Fort Collins mosquito control staff consisted of 17 Full-time Equivalent employees (FTE). Specifically, we had 1 Manager, 1 Field Supervisor, 10 Field Technicians, 1 Fish Program Manager, 1 Urban Program Technician (i.e., for Backyard Program, Storm Drain Program, and Public Education Program), 0.5 Surveillance Supervisor, 1 Surveillance Technician, 0.5 Maintenance Technician, 0.5 Quality Control Supervisor, and .5 Office Staff. In 2005, the City of Fort Collins mosquito control program operated with 17 FTEs. In 2004 the program operated with 17.5 FTEs.

The Mosquito Control Area contains approximately 112.8 square miles, 61.7 square miles of which are outside city limits. Although many of the mosquito production sites are outside the city limits, all are well within the flight range of most mosquitoes. Larval control work outside the City will continue to remain a critical part of the overall operation of CMC. Studies have indicated that adult mosquitoes can travel several miles in search of a blood meal and new habitat for offspring. Mosquito reduction by Colorado Mosquito Control throughout Homeowner's Associations and cities within the county greatly reduces transient mosquito populations.

2006 Season Perspective

The variability of Colorado's climate comes as no surprise. Seasonal fluctuation in temperature and precipitation alters the production rate and abundance of mosquitoes. The 2006 mosquito season was no exception to the variable uncertainty. This year presented a unique set of temperature, precipitation, irrigation and human impacts combined to create new trends in mosquito control and mosquito borne disease proliferation and necessary controls.



	2002	2003	2004	2005	2006
Average Temp. (F)	67.0	68.0	64.8	67.0	69.2
Total Precip. (In.)	4.7	5.0	6.6	6.4	3.66

Overall, May through August 2006 brought above normal temperatures in comparison to previous years. The combined temperature for Loveland and Fort Collins averaged 60°F in May, 71.3°F in June, 74.7°F in July and 70.8°F in August. The season was also very dry. Between April 30th and September 2nd a total of 4.04 inches of rain resulted in Loveland versus 3.27 inches in Fort Collins. The Fort Collins and Loveland area received a cumulative average of .46 inches of rain in April, May and June combined; versus 1.14 inches in July and August. Precipitation in these months created resurgence in *Culex* mosquito populations versus early season floodwater mosquito hatches.

The vast majority of the mosquitoes (*Aedes/ Ochlerotatus*) which tend to swarm more aggressively in search of a blood meal are associated with newly resultant water levels from irrigation and rain. Thus mosquito population trends along the Northern Front Range fluctuate with heavy rains (over .5 inches) or the agricultural flooding of fields. Mosquito eggs from species belonging to the genera *Aedes/ Ochlerotatus* can lie dormant for years, hatching when temperature and aquatic variables are met.

In 2006, lack of heavy rains along the Northern Front Range in April, May and June kept floodwater mosquito populations below normal in most areas. Exceptions to this trend resulted in areas were heavy flood irrigation occurred or seepage resulted from irrigation pipes/ control values.

Most of the significant mosquito populations early in the season were *Culex* species. Mosquitoes belonging to the genera *Culex* seek stagnant pools associated with marshes or via human impact from residential watering. The early season prominence of *Culex* mosquitoes heightened the threat of West Nile Virus disease transmission, enabling strong vector populations in areas were adult mosquitoes could not be suppressed.

The months of July and August brought a change in precipitation and temperature variables. With new rain, many larval sites filled, resulting in initial floodwater mosquito hatches. Irrigation slowed with the increased rain and farmers began irrigation blows. CMC observed a shift in the type of larvae obtained at larval sites and the rate at which larvae were producing with warm temperatures and shallow water depth. A surge in *Culex* (standing water) mosquitoes in August increased West Nile Virus activity along the Front Range. The necessary factors were present for West Nile Virus transmission to rebound and cause elevated concern in many communities.

The season came quickly to a close during the first weeks of September with the incursion of several cold fronts which dropped day time temperatures into the 60's and night time temperatures into the 40's. From a metabolic standpoint, vector mosquitoes shifted focus from producing offspring in new egg deposition to maintenance of energy and nutrient intake for overwintering.

After 3 years of larval control in the City of Fort Collins and buffer areas, the reduction in overall mosquitoes is evident from surveillance data and resident feedback, despite seasonal variation in temperature and rain variables. The data provided in comparison graphs for Average Mosquitoes per trap per night reflects the notable reduction in *Culex* mosquitoes due to the presence of a larval control program from the adult mosquito populations trapped in 2003 without larval control. **The City of Fort Collins larval mosquito control program provides the best option for environmentally friendly control in reducing potential adult mosquito populations for the safety and comfort of residents.**

WNV Relapse

Background

West Nile Virus (WNV) was first identified in Uganda in 1937. Since that time, activity has been documented throughout Africa, Europe, West and Central Asia, and areas of the Middle East. The virus made its first appearance to North America in 1999 when it was documented in New York City. WNV comes from a family of viruses known as Flaviviridae and is closely related to other viruses which can have severe effects on both humans and animals such as Japanese Encephalitis and St. Louis encephalitis.

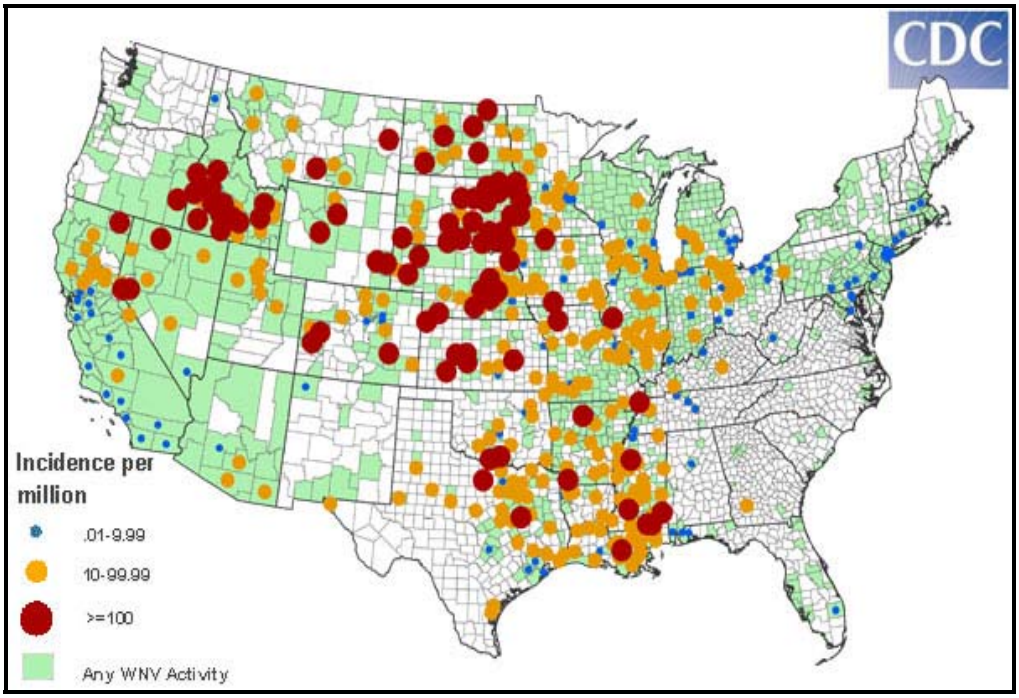
WNV has a wide range of symptoms which can range from mild flu like symptoms to death. Of humans affected, nearly 80% will show no symptoms at all. The majority of people who do show symptoms will usually suffer from flu like symptoms. However, approximately 1% of people will develop much more severe symptoms including meningitis (inflammation of the linings surrounding the brain and spinal cord), encephalitis (inflammation of the brain), or very rarely poliomyelitis which can cause paralysis in parts of the body.

Since the introduction of WNV to the United States in New York City 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 progressed through the South, the Midwest, the Rocky Mountain region, and now the Western States. WNV activity has been documented in all US states except Alaska and Hawaii.

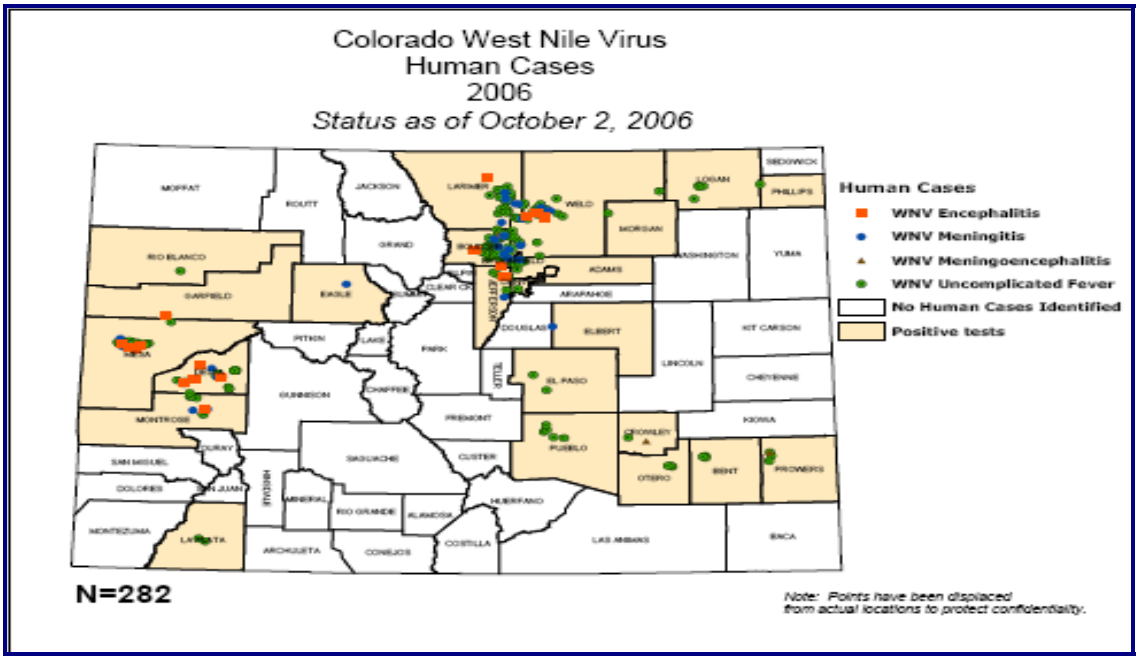
Colorado first saw activity of the virus late in the summer of 2002. In 2003 Colorado was the hardest hit state compiling 2947 human cases and 63 deaths most of which occurred along the Front Range. By 2004 the majority of the cases shifted to the Western Slope and the state totaled 291 cases with 4 deaths (Mesa County).

WNV Transmission since 2003

West Nile Virus activity in 2004 and 2005 in Colorado was spread throughout the state with no particular clustering in any one region. However, in 2006 early hot and dry conditions enabled faster development of *Culex* mosquitoes.



Culex mosquitoes are opportunistic when searching for an aquatic habitat to deposit eggs at, therefore increasing the challenge for mosquito control technicians to locate potential breeding sites. When water is sparse, mosquitoes will select smaller habitats and may increase migration distance in search of habitats. Viral amplification was increased with early season *Culex* populations and by August hundreds of mosquito pools throughout the state were detected.



In late August decisions were made by several counties and municipalities to implement emergency West Nile Virus control via large-scale adult mosquito spraying based on infection rates observed in surveillance populations. In many areas *Culex* mosquito populations began to decline with onset of fall, although the City of Longmont, City of Loveland and areas in Weld County did opt for emergency ULV applications to suppress future vector populations. Excellent results were seen with over 90% reduction in *Culex* mosquito populations observed in post application surveillance trapping. Soon after these applications cold weather set in preventing the need for further measures.

Human West Nile Virus Infections: Colorado 2006					
Front Range Counties	Fever	Meningitis	Encephalitis	Total Cases	Total Deaths
Adams	7	1		8	
Boulder	59	5	3	67	1
Broomfield		3	2	5	
Denver	3			3	
El Paso	5			5	
Jefferson	3	2	3	8	1
Larimer	33	5	2	40	1
Morgan	1			1	
Pueblo	6			6	
Weld	51	8	6	65	1
Colorado Total	**259**	**33**	**29**	**321**	**7**

Clinical diagnosis as reported by CDPHE- updated October 23, 2006

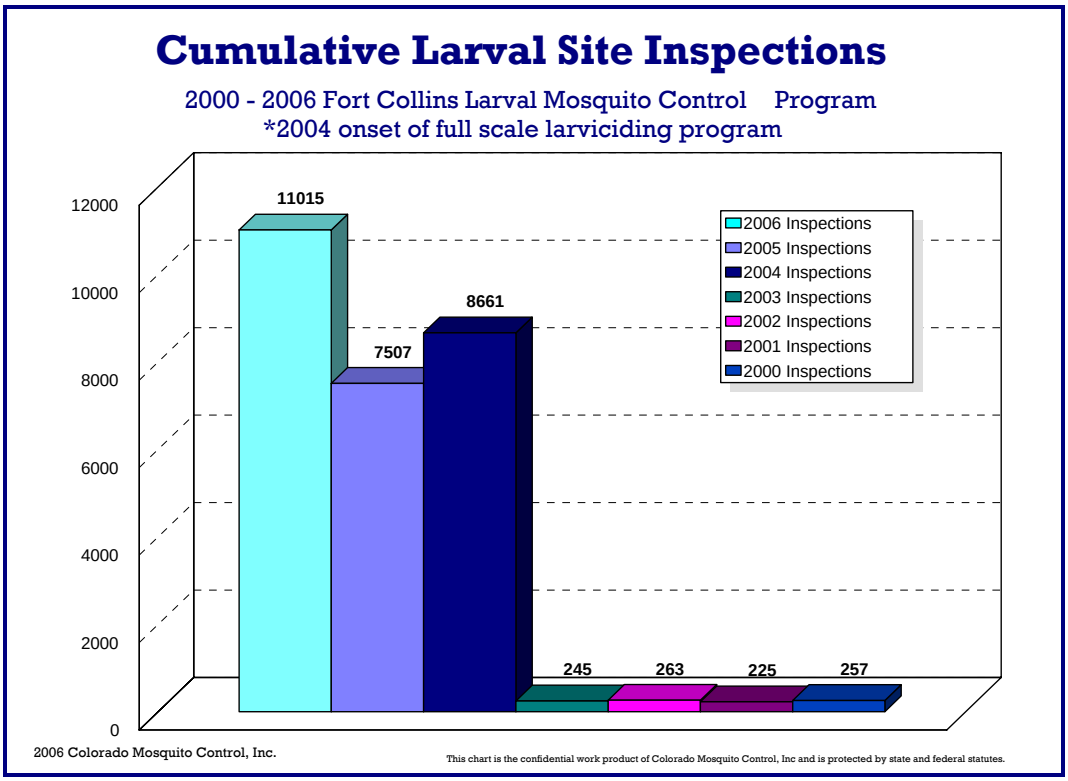
2006 Larval Mosquito Control

CMC has prepared for present and future disease management through the development of C.M.M.S (Computerized Mosquito Management System). This trademark database enables CMC, to generate reports which utilize historical data, to evaluate and prioritize mosquito production at larval sites. CMC compares surveillance data, C.M.M.S larvicide application reports and larval mosquito information to locate new breeding sites and monitor areas of virus potential.

This database is capable of targeting present and future vector populations through use of genus and species data, obtained from larval identification at CMC's lab and in- field identification. Larval identification formulates specific knowledge of each site and prepares for response in the event of disease outbreak, as to where the particular vector species is found.

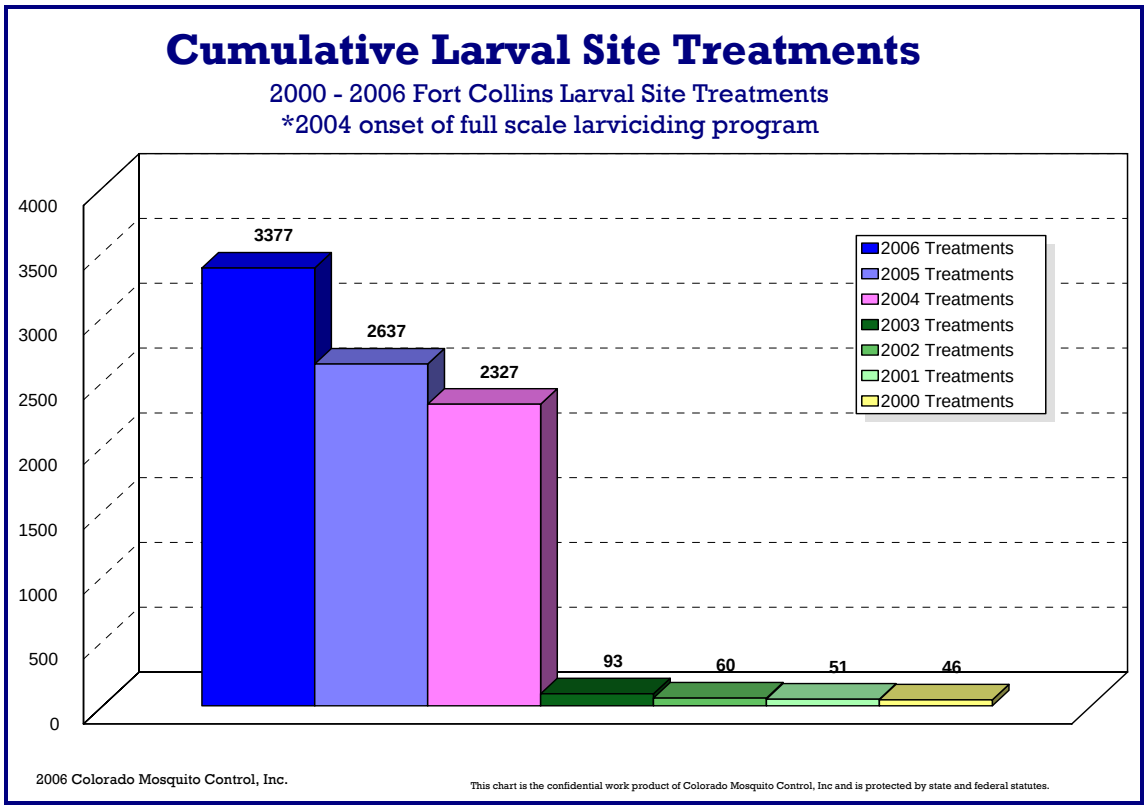
Years of research and practical experience have shown that the most effective way to control mosquito populations is through an aggressive Integrated Pest Management (IPM) approach. This approach aims at using a variety of concepts, tools, and products to reduce a pest population to a tolerable level. Translating these ideas to mosquito control, CMC has found the most environmentally and economically sound approach is through targeting the aquatic larval stage of the mosquito. Targeting this stage prevents the emergence of the adult mosquito and thus the inevitable result of disease and nuisance. Over 93% of Colorado Mosquito Control, Inc. (CMC) operational efforts are focused on larval control.

Weather conditions in 2006 were ideal for *Culex* mosquito production. CMC staff kept *Culex* mosquitoes low by targeting high production sites using the C.M.M.S system and known historical larval production data. The number of site inspections increased in 2006 by 121.4% from 2004 and 146.7% from 2005. CMC increased site inspections through utilization of site priority data via C.M.M.S reports to reduce wasted time spent inspecting rain sites and limiting site inspections at floodwater larval habitats to post rainfall events. CMC employees were able to offset the effects of warmer temperatures and missed mosquito hatches by re-inspecting consistently producing *Culex* larval sites every 3 days to reduce the potential for missed larval hatches.



Larval Production Comparison

Larval control began in early April and continued though mid September. Sporadic rain events and a surplus of irrigation water left more late season sites 'wet' this year than in previous years. In 2006, 75.6% of the total site inspections consisted of wet sites with larval production at 40.6% of the total sites. In 2005, 84.0% of the total inspected sites were found wet, but larval production occurred at 41.8% of the sites. In 2004, 79.8% of the total inspected sites were found wet, with 33.7% larval production at the sites. The percentages detailed include storm drains, backyards inspections, and sites within larval routes. In summary, larval sites in 2006 were 8.4% drier than 2005, but only a 1.2% decline resulted in larval populations.



Operational Information

There are currently 1,196 active larval sites inspected by technicians as part of the regular inspection and larvciding program. A total of 85 new larval sites were found in 2006. In 2005 the there were 1,057 active larval sites with 190 new larval sites located. In 2004, 867 active larval sites were inspected regularly for larval presence. The values listed do not include the Urban Mosquito Control Program. A total of 74 larval sites have been destroyed since the end of season in 2004. These sites were either physically demolished or the water source was removed.

Backyard Inspection Program

Culex pipiens is a known vector of WNV, and is primarily found in artificial containers associated with residential settings and in areas of polluted water. This program expanded from 34 yards in 2004, 105 in 2005 and 129 in 2006. The backyard technician in 2006 worked aggressively to locate new backyard larval habitats in communities where abnormal increases in *Culex pipiens* mosquitoes were observed. Development of this program has resulted in significant reductions in *Culex pipiens*, and numerous opportunities to educate residents about source reduction within their backyards.

An estimated 1.1 million larvae were eliminated before hatching in 2006. In 2006 there were 436 total sites inspections with larvicide application at 236 (54.1%) sites. The total acreage treated in 2006 was .9 acres with 12.4 lbs of Altosid. In 2005 there were 301 sites inspections with 172 sites treatments. In 2004 there were 70 site inspections with larvicide application at 29 sites.

Storm Drain Program

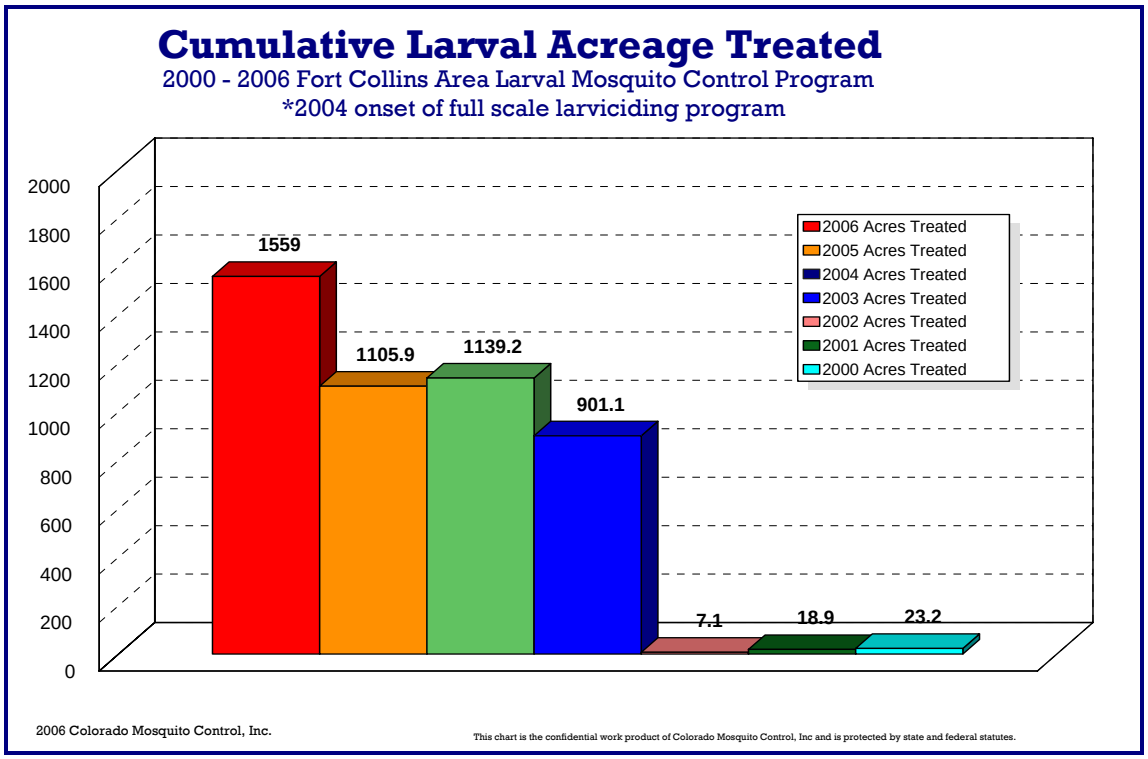
The storm drain program completed its 2nd year. In 2006, CMC shifted inspections to include all storm drains due to elevated *Culex pipiens* populations in 2005 and 2006. Although this season was drier than previous years, CMC employees wanted to assess the effects of residential watering on drain production. The areas which were found consistently wet this season occurred in and around Old Town. Residential subdivisions showed little mosquito production when compared to catch basins near downtown. CMC will set priority in future seasons to inspect all drains in this zone first, working outward given larval production found in 2006 and resident population.

The storm drain technician inspected 3,960 storm drains and treated 3,240 drains for larval presence or organic material/ debris causing drain blockage. Of the total 264 quadrants inspected from June through August, 99% of the drains were found wet. A total of 9.4 lbs of Altosid was applied to storm drains. In 2005, CMC staff monitored 3,353 individual storm drains throughout the city. There were 4,924 visits to these drains. During 458 of these visits, the technician manually sampled the drain for mosquito larvae (the remainder were only visually inspected and treated if there was water collecting in the drain at the time of the visit). The 4,924 visits resulted in 698 treatments.

Quality Control Program

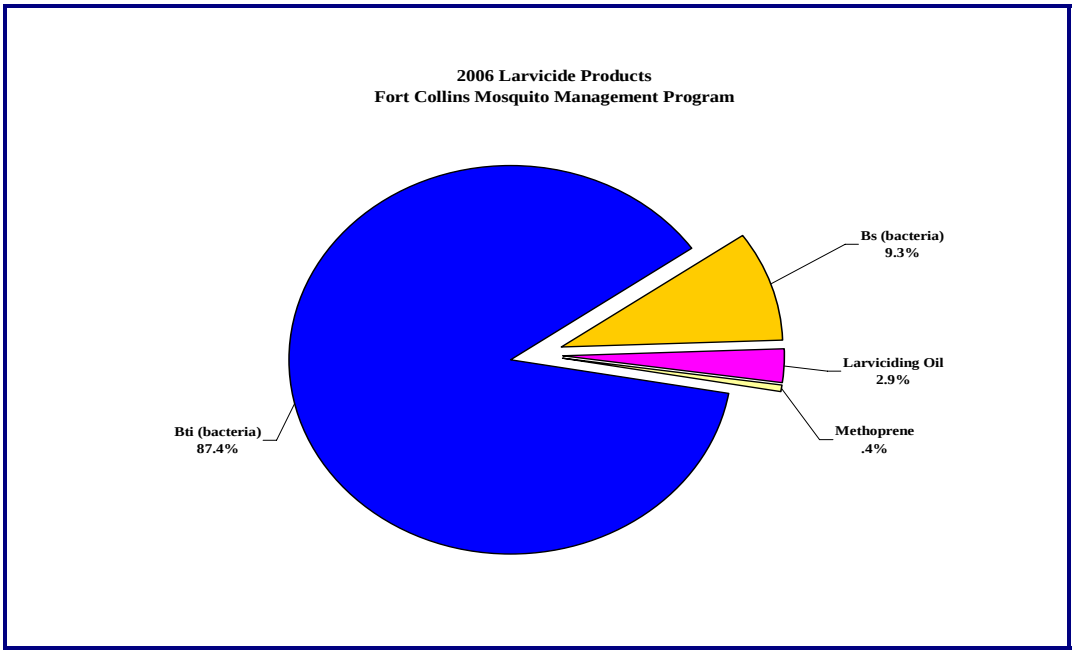
The quality control program completed its 2 year. The full-time Quality Control Supervisor randomly selected sites to inspect and re-inspected sites that had been treated 1-2 days prior to ensure accurate application rate and effectiveness of larval control agents. The components of quality control inspections provided identification regarding areas of re-training needs with respect to product usage, application, and acreage estimation. The quality control program ensures on-going training for field technicians and offers suggestions for increased efficiency.

The Quality Control Supervisor inspected a total of 463 sites with larval production found at 48 of the inspected sites. The percentage error between technician treatment and quality control review of product application rate was 10.3%. The Quality Control Supervisor found 3% (14) of the 463 sites were incorrectly inspected. This percentage error has been substantially improved since the program began in 2005 when data indicated improvements were needed on 30% of the total quality control inspected sites. Deficiencies from 2005 were focused on in the 2006 season training and continue to be readdressed by the Field Supervisor and/or the Quality Control Supervisor when error results. This program is beneficial at improving expenses for larviciding products, efficiency in field inspections and applications and compliance with label rates mandated on larvicide products.



CMC's favored method of larval mosquito control is through bacterial bio-rational products. The main product used by CMC 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 properly successful control without impact to aquatic invertebrates, birds, mammals, fish, amphibians, reptiles, or humans can be achieved. 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)*. In addition to all of the benefits of *Bti, Bs* is by definition a true biological control agent in that it remains in the system through multiple broods, or generations, of mosquitoes. Unfortunately the residual benefit of the control comes at a cost in price of approximately three times that of Bti.

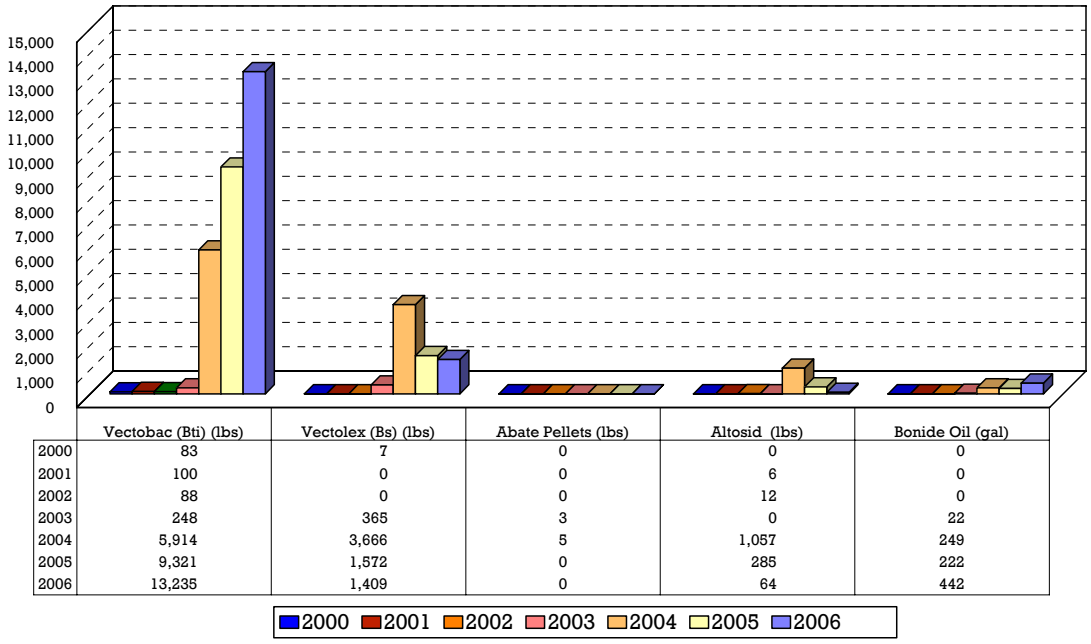


Other larval control products include a growth regulator (methoprene), a mineral oil, and an organophosphate (Abate). Methoprene is a synthetic copy of a juvenile growth hormone in larval mosquitoes. The hormone prevents normal development of the adult mosquito in the pupal stage eventually causing death. While a good control product, the cost is prohibitive to be the predominant product in a large scale program. CMC primarily uses this product in catch basins and areas of permanent water, where the cost of the product and residual control outweighs labor. Abate, one chemical larval control product CMC uses, serves as an effective product, but label restrictions limit its use in many areas. CMC does not utilize this product in the city limits of Fort Collins. Where applicable CMC limits the use of this chemical larvicide to areas with little biodiversity, such as road side ditches, or areas which chronically produce large amounts of mosquitoes. This product is used as a last resort when other solutions are not present. The benefits of these products are the availability of 30 and 150 day formulations. Mineral oil is the only product effective on the pupal stage and therefore is an essential tool when pupae are found.

All the fore mentioned methods and products represent the essential ingredients of Integrated Pest Management. Mosquitoes are very well adapted insects and can be found in many different habitat types from a cattail marsh to a cup littered on the side of the road. A variety of tools must be used to prevent resistance and ensure the best method will be available for any given situation.

Larval Control Agents Comparison

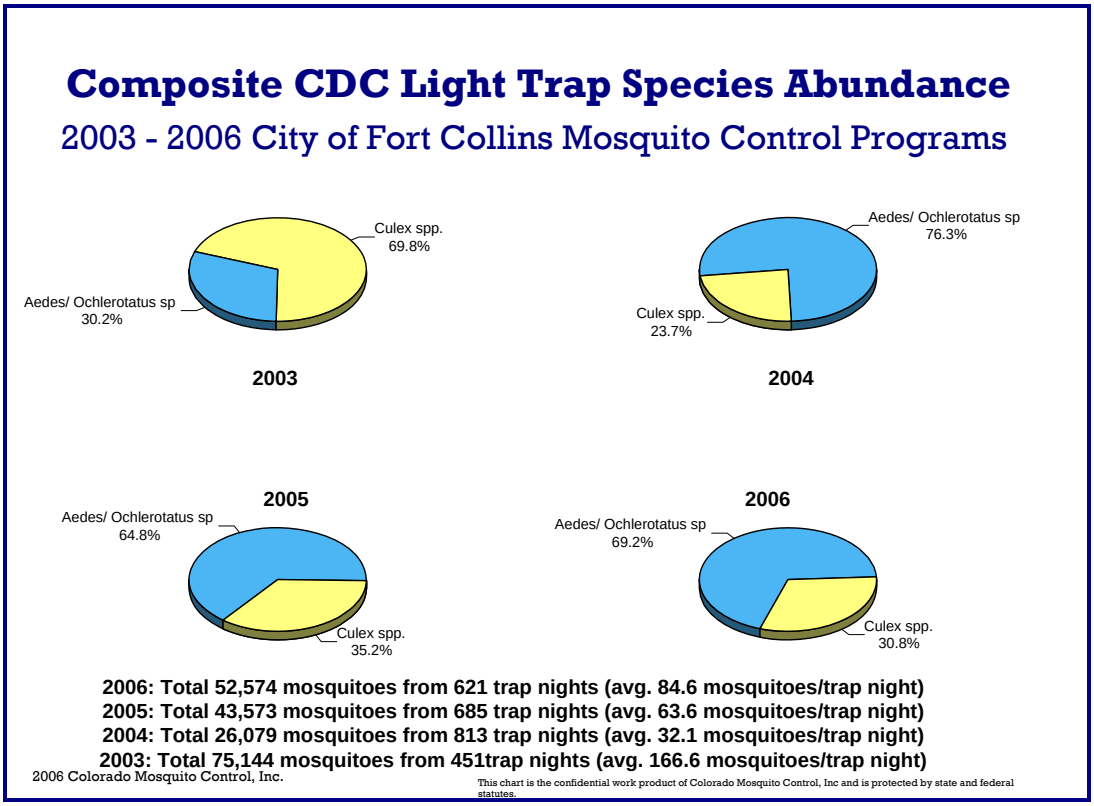
2000-2006 Fort Collins Larval Mosquito Managment Program



	Vectobac (Bti) (lbs)	Vectolex (Bs) (lbs)	Abate Pellets (lbs)	Altosid (lbs)	Bonide Oil (gal)
2000	83	7	0	0	0
2001	100	0	0	6	0
2002	88	0	0	12	0
2003	248	365	3	0	22
2004	5,914	3,666	5	1,057	249
2005	9,321	1,572	0	285	222
2006	13,235	1,409	0	64	442

2006 Encephalitis Surveillance Program

Accurate species identification of mosquitoes obtained from surveillance trapping is important when monitoring species population trends. It is also necessary for evaluating whether a population spike in vector mosquitoes will enable an epidemic outbreak.



Light Trap Surveillance

In 2006, mosquito populations within city limits were monitored at 43 adult light trap locations (approximately 1 per square mile). Battery-operated "light traps" were set weekly in each location to provide data for seasonal comparison. In April 2006, CMC employees reviewed surveillance data from 2003-2005 for adult mosquito populations trends. A total of 15 surveillance trapping sites were relocated in 2006, replacing surveillance sites that consistently supplied low surveillance adult mosquito populations (10-30 mosquitoes for the season) for three consecutive years. This was done to get better information about larval control effectiveness and sample disease population data. The percent composition for mosquitoes obtained from light traps was 68.0 % *Aedes/ Ochlerotatus* and 30.3% *Culex* mosquitoes. Refer to 2006 Fort Collins CDC Light Trap Composite Data for floodwater and *Culex* mosquito season comparison and species breakdown.

Gravid Trap Surveillance

In April CMC established 5 permanent gravid trap locations generated from data obtained from surveillance trapping history. Previously gravid traps were set every 3 to 4 weeks in each location. Gravid traps were set at the 5 locations weekly to establish a sentential system for West Nile Virus activity. Gravid traps primarily attract *Culex pipiens*, which prefer avian hosts when seeking a blood meal. Trapping and testing of *Culex pipiens* mosquitoes provides indication for avian transmission activity. Refer to 2006 Fort Collins Gravid Trap Composite Data Summary for gravid trapping species breakdown.

Surveillance Summary

Adult mosquito surveillance in Fort Collins is centered on locating areas with the greatest *Culex* mosquito populations to monitor the vector potential for human health risk. Nuisance mosquitoes are identified and attempts are made to locate the water sources from which floodwater populations result, but the majority of focus is placed on reducing *Culex* mosquitoes.

CMC set and identified mosquitoes obtained from 621 CO_2 baited light traps within city limits. Surveillance light traps caught a total of 52,574 mosquitoes for an average of 85 mosquitoes per trap per night, 22 *Culex tarsalis* mosquitoes per trap per night and 3 *Culex pipiens* mosquitoes per trap per night. CMC set 3 floater traps for residents who called with mosquito annoyance complaints in areas where trap counts had not indicated elevated adult mosquito populations. See attached charts detailing average female mosquitoes per trap per night for the City of Loveland and City of Fort Collins over the 2003-2006 seasons.

West Nile Virus Surveillance and CDC Confirmation Results

There were 1,084 pools consisting of 3,584 total mosquitoes submitted to the CDC for testing for the city of Fort Collins in 2006. The city of Fort Collins surveillance traps detected 53 WNV positive samples, a majority resulting in the southeast corner of Fort Collins in the vicinity of Fossil Creek Reservoir.

There were 10 mosquito samples found positive for WNV in Fort Collins 2005. In 2004 there were 2, and in 2003 there were over 50.

There were 10 human cases of WNV for people with Fort Collins addresses in 2005. Compare this to 10 in 2004 and 302 in 2003.

There were 3,097 total mosquitoes submitted to the CDC in 793 sample pools from city of Loveland surveillance trapping. The city of Loveland traps returned 49 positive mosquito sample pools, with the southeast corner of Loveland posing greatest infection rate in vector populations.

Attached is a summary of West Nile Positive mosquito sample pool data by pool number, sample size and location. A summary map details the cumulative positive totals by location. The 2006 mosquito season has shown that it is critically important to continue mosquito surveillance and control operations in future years to reduce human health risk and West Nile Virus transmission via mosquito population suppression. The threat of WNV and other mosquito borne diseases is not going away.

2006 Adult Control

The goal of Colorado Mosquito Control, Inc. is to provide all residents of the City of Fort Collins with the best options for safe, effective, modern mosquito management. This environmentally focused program maintains adulticiding applications as the final resort when vector mosquito populations surpass human health risk indices. The primary emphasis of the Fort Collins program is to control mosquitoes in the larval stage, using safe biological control products.

Adult mosquitoes can come from unknown unidentified sites or may migrate in from uncontrolled areas. The City of Fort Collins mosquito management program uses all available data from CDC light traps, Mosquito Hotline annoyance calls, and field technician reports to focus adult mosquito control concerns on specific, very limited "targeted" areas. In parts of the community were high numbers of mosquito annoyance calls are received, "floater" CDC light traps are set to evaluate adult population levels and species make-up. In most cases, a direct correlation is evident between areas with high complaint calls and high trap counts. While this correlation allows us to focus adult control in these areas, the emphasis is placed on finding the source of breeding and continued larval control measures.

City of Fort Collins officials did not request any city wide or targeted mosquito adulticide applications in 2006. CMC possesses fogging maps for adulticiding zones within the city of Fort Collins and Larimer County in the event of a public health emergency. CMC was prepared to adulticide if recommendations were made by the Larimer County Department of Health and Environment on August 31st, when human health risk indices approached thresholds not observed since 2003 in southeast sections of Fort Collins. The proposed spray recommendation was not made as vector mosquito populations declined with the onset of cooler temperatures associated with early September.

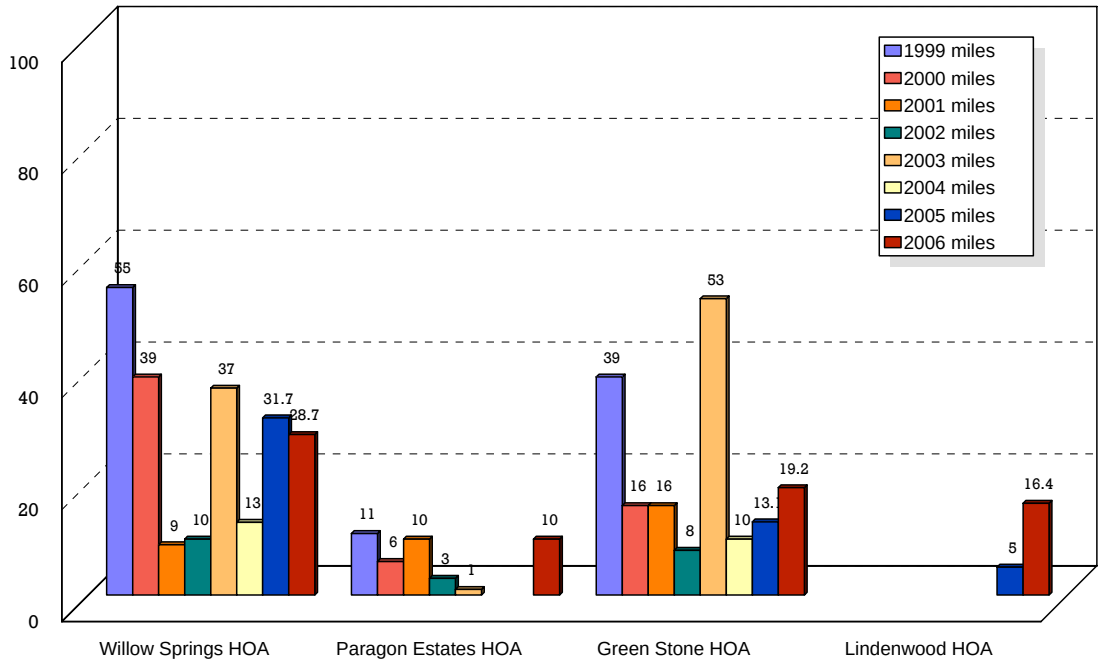
It is important to note that CMC did adulticide on numerous occasions within the City of Fort Collins in 2006 at the request of several private homeowners' associations. It is also likely that adulticiding was done by other mosquito control contractors within city limits. The graph listed below provides a summary for adulticiding miles sprayed within CMC managed Homeowner's Associations in the city limits of Fort Collins.

Colorado Mosquito Control uses state of the art technology, correct application timing, and least-toxic products to minimize all non-target impact. All adult mosquito control is accomplished using calibrated Ultra Low Volume (ULV) equipment and performed after dusk. 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 activity is greatly reduced. Using this application technique, the overall goal of minimal environmental impact and effective adult control is achieved in the targeted area.

In 2006 we introduced the water-based product AquaLuer for ULV adult mosquito control. Its' active ingredient; permethrin is highly effective against mosquitoes, while the water-base provides a much more environmentally sound solution to traditional petroleum oil-based adulticides.

ULV Adulticide Mileage Comparison By Service Area

1999-2006 City of Fort Collins HOA Mosquito Management Programs



Public Relations, Outreach, & Progressive Education

Colorado Mosquito Control places a heavy emphasis on public relations, customer service, and community education. CMC's website continues to be successful, based on the number of "hits", favorable e-mails and requests for more information received from county residents and literally from around the world.

With the introduction and continued media coverage of West Nile Virus, residents have become increasingly more involved with mosquito control operations. In 2006 our staff focus was on providing area residents and visitors with information on the program via a Public Relations technician and independent options for mosquito reduction. It is our goal at CMC to work with property owners to obtain permission for property access so that a working relationship between both parties can be developed.

In 2006, Jessica Schurich, operations manager for the city's mosquito control program worked with Maureen Scullion and Mike Calhoon to organize four presentations for the employees and members of the Water Board, Water Reclamation Plants and Parks & Recreation Department. Information provided to City of Fort Collins employees enables community understanding for mosquito biology and larval habitats. The presentations increased understanding of West Nile Virus and options for personal protection for the workers that are subjected to potential infected mosquito populations. The time that Maureen and Mike put into employee education provided an excellent opportunity with respect to community outreach for CMC.

CMC collaborated with the Ace Hardware in Fort Collins and Loveland to hold the 2nd annual Fish Give-Away on July 17th. This 6 hour event provided City of Fort Collins and Loveland residents with a biological control to consume mosquito larva in ornamental and stock ponds. Approximately 1500 fathead minnows were distributed to 68 residents at the Fort Collins location. CMC technicians stocked an additional 200 fish in ponds for residents who were unable to attend the give away. This program serves as an essential tool for providing resident education and information.

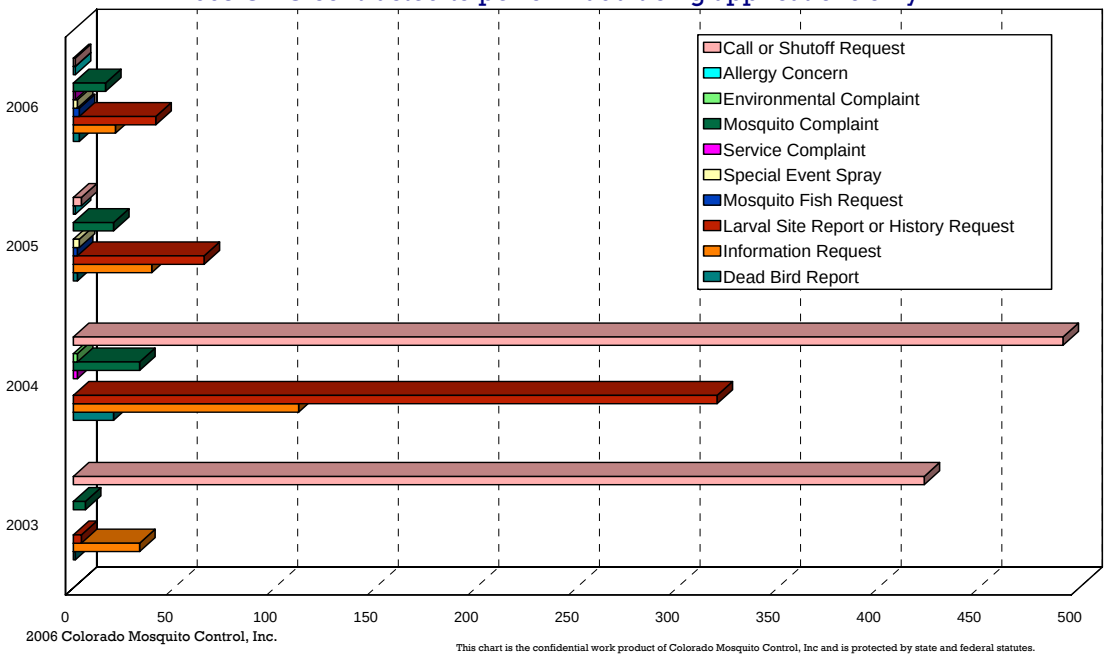
Customer service was again a very high priority. We take pride in training each and every technician so that they have the confidence and information to provide residents with the correct

answers to sometimes difficult questions. Each field technician spends part of their day responding to resident concerns in their work area. This in-field customer service personalizes each mosquito control program, provides us with local information on mosquito activity and provides the valuable opportunity to truly communicate face to face with the residents we serve.

CMC continued to provide a MosquitoHotline for City of Fort Collins residents, at no cost to the city, to reduce workload by municipal personnel. This enables direct communication and response by mosquito control employees to resident concern about West Nile Virus and larval site activity and treatment. Residents are always encouraged to call the MosquitoHotline to report areas with high mosquito annoyance and potential standing water larval habitat. These calls compliment CDC light trap data, allow us to pinpoint problem areas, and ultimately provide another valuable resource for our control efforts.

Yearly Comparison of MosquitoLine Calls

2003 -2006 Fort Collins Resident Phone Calls by Description
* 2003 CMC contracted to perform adulticing applications only



2006 Colorado Mosquito Control, Inc.

The total number of resident customer calls to the mosquito office in 2006 was 68. The greatest percentage of phone calls continues to be reports for standing water and information requests about larval site production. Residents who have reported larval sites will follow up on larval production and treatment at the specified site by calling the MosquitoHotline for the City of Fort Collins. There were 16 mosquito annoyance call received, which corresponded to data for substantial adult mosquito populations.

CMC seeks to assist in mosquito research that will improve the quality and efficiency of our mosquito control programs.

In 2006, CMC participated with the following research programs:

1) Centers for Disease Control West Nile Virus Study: Throughout the Cities of Loveland and Fort Collins, CMC operated approximately 72 CO_2 baited light traps and identified adult mosquitoes weekly from mid-May to mid-September. After genus and species identification was performed by CMC employees, samples were sent to the Centers for Disease Control in Fort Collins for West Nile Virus testing. CMC, the Larimer County Health Department, and the Colorado Department of Public Health and Environment used this information for immediate operational decisions. This information will also be used by the Centers of Disease Control to make mosquito control recommendations to communities across the country.

2) Permethrin Resistance Study:
Adam Strong completed the second year of research in pursuit of his master's degree from Colorado State University. Research was performed at the Department of Bioagricultural Sciences & Pest Management at Colorado State University and field sample collection was obtained on site through cooperative data sharing by CMC for Adam Strong. Research is in process of peer review for publication.

ABSTRACT OF THESIS
RESISTANCE LEVELS TO PERMETHRIN IN *CULEX TARSALIS* COQUILLETT (DIPTERA: CULICIDAE) FOUND IN NORTHEASTERN COLORADO

Resistance levels to permethrin and the activity of metabolic resistance enzymes from a lab strain of the mosquito *Culex tarsalis* Coquillet were compared to field collected mosquitoes from northeastern Colorado. Field collections occurred over the 2005 and 2006 field seasons from thirteen different sites within, and outside of mosquito abatement areas. Resistance levels by year, by location, and by date were examined and contrasted with the lab strain using LT_{50} values and 95% CI overlap. LT_{50} values were significantly different between years. Mosquitoes collected in 2005 were more resistant to permethrin than either the lab strain, or the mosquitoes collected in 2006. Using ANOVA, metabolic resistance enzyme levels varied significantly in all comparisons. Glutathione s-transferase levels recorded in 2005 were much higher than either the lab strain or 2006 mosquitoes; mixed function-oxygenases were also higher, but to a lesser extent. Glutathione S-transferases and mixed function-oxidases seem to play a role in resistance to permethrin in *Cx. tarsalis* mosquitoes found in northeastern Colorado.

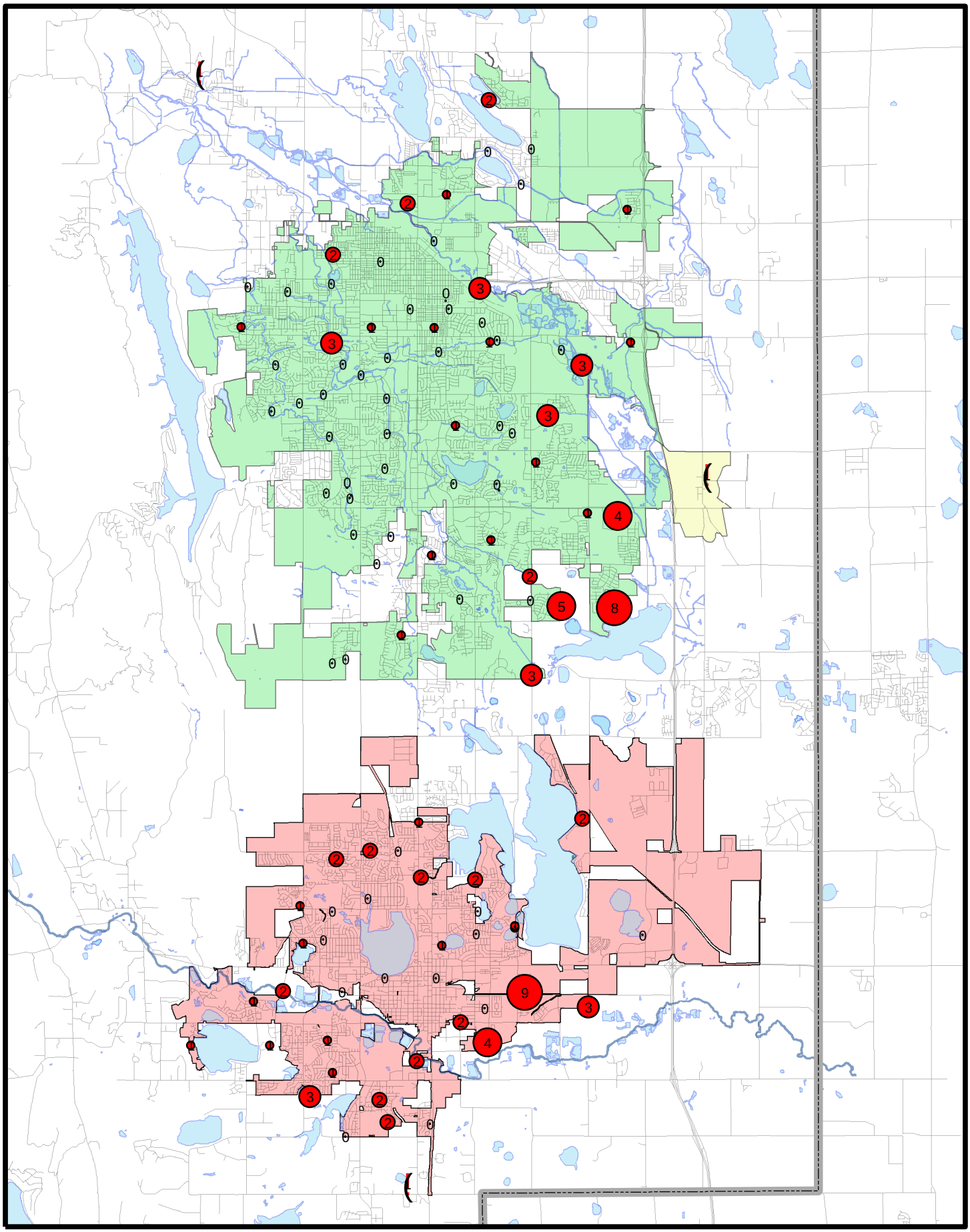
3) USDA National Wildlife Research Center WNV Study

CMC continues to work cooperatively to provide adult mosquito surveillance data and areas of increased West Nile Virus positive mosquito sample pool data to researchers with the Wildlife Disease Program at the USDA National Wildlife Research Center. Research is evaluating potential correlation between WNV infection in swallow populations versus swallow bug presence and abundance. Scientists are assessing West Nile Virus activity obtained from swallow nesting sites to positive WNV mosquito samples as an indicator of WNV severity by location.

COLORADO MOSQUITO CONTROL, INC.

Protecting Colorado From Annoyance & Disease Since 1986

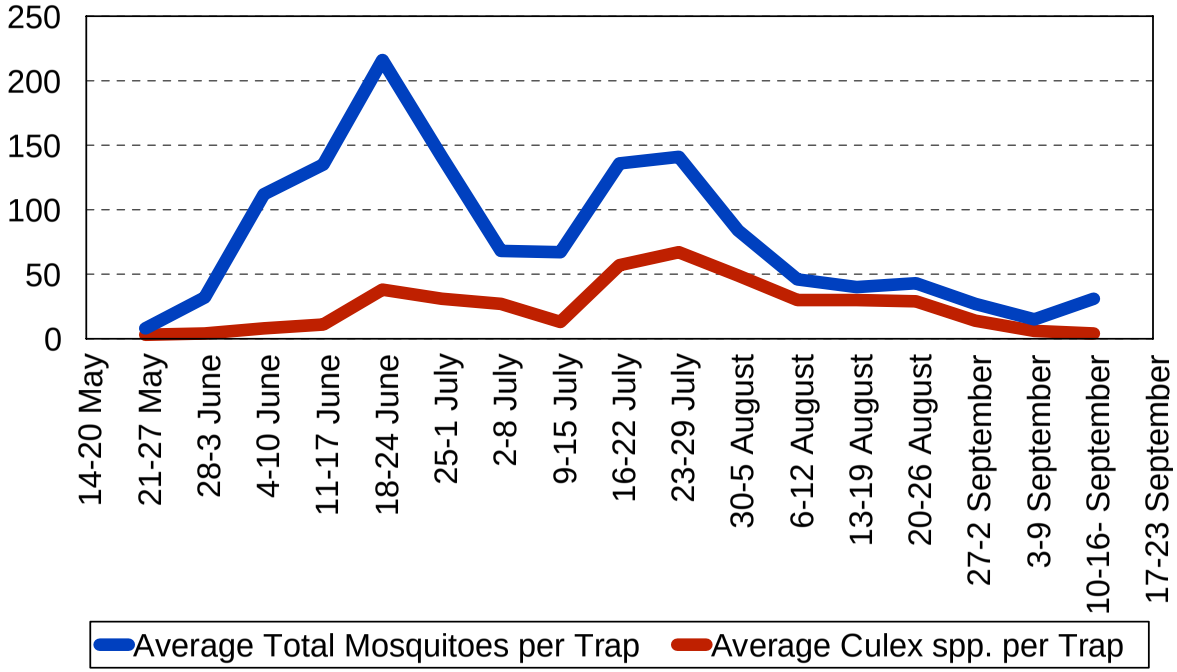
2006 Summary of West Nile Virus Positive Mosquito Sample Pools
(Indicates cumulative total for samples obtained from surveillance locations)



2006 Fort Collins CDC Light Trap Composite Data

Total number of trap/nights set: 621
Total number of mosquitoes collected: 52,574
Average mosquitoes per trap/night: 85
Average *Culex tarsalis* per trap/night: 22
Average *Culex pipiens* per trap/night: 3

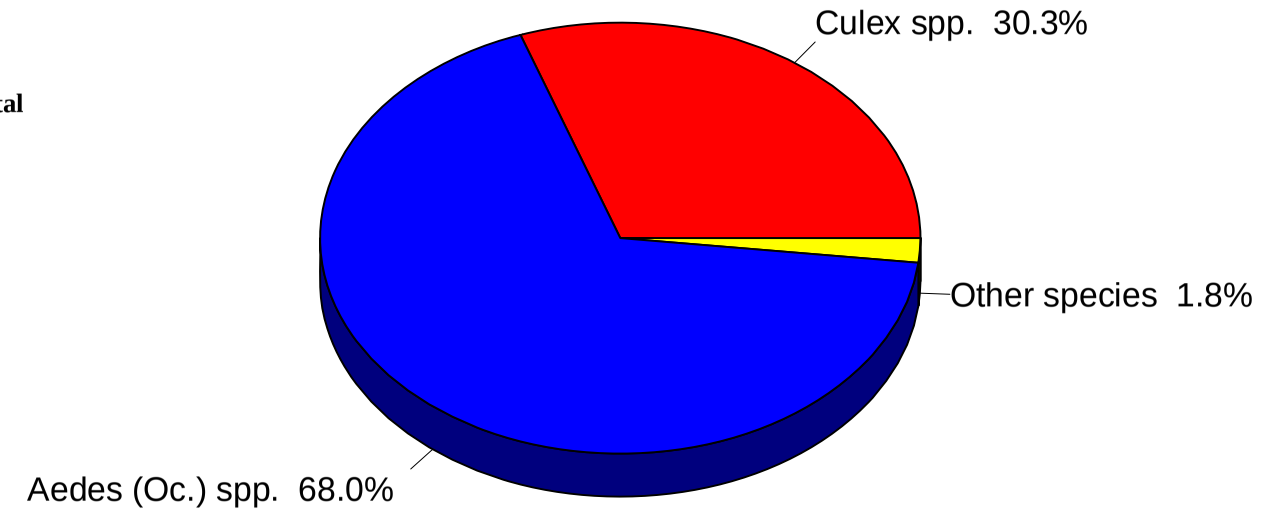
Trap sites included in this data: All regular City of Fort Collins light trap sites, which includes 3 floater traps that were set based on mosquito complaint phone calls from residents within city limits.



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) epactius
Aedes (Oc.) hendersoni
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Anopheles hermsi
Coquillettidia perturbans
Culex tarsalis
Culex pipiens
Culiseta incidens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes (Oc.) spp.	35,734	68.0%
Anopheles spp.	31	0.06%
Coquillettidia spp.	485	0.92%
Culex spp.	15,913	30.3%
Culiseta spp.	411	0.78%



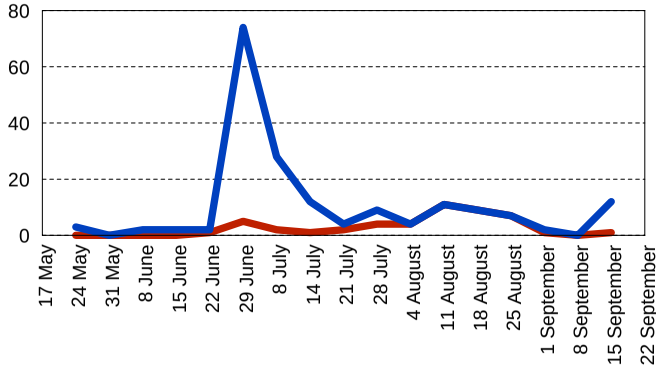
West Nile Virus Testing:
Fifty-three mosquito sample pools from City of Fort Collins Surveillance locations tested positive for WNV, which includes five mosquito sample pools from gravid traps. The first positive was detected on 18 July 2006.

FC-01: Magic Carpet

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Hudson & Avondale Detention Basin
GPS: N40° 329.449', W105° 4.948'

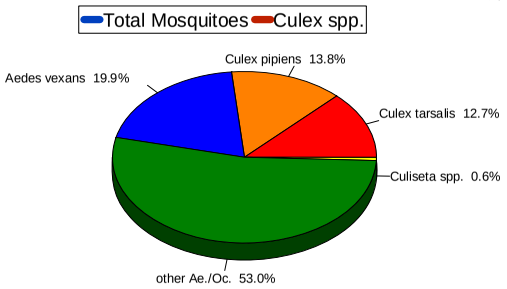
Total number of trap/nights set: 17
Total number of mosquitoes collected: 181
Average mosquitoes per trap/night: 11

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	36	19.9%
Other *Aedes/Ochlerotatus*	96	53.0%
Culex tarsalis	23	12.7%
Other *Culex*	25	13.8%
Culiseta inornata	1	0.6%



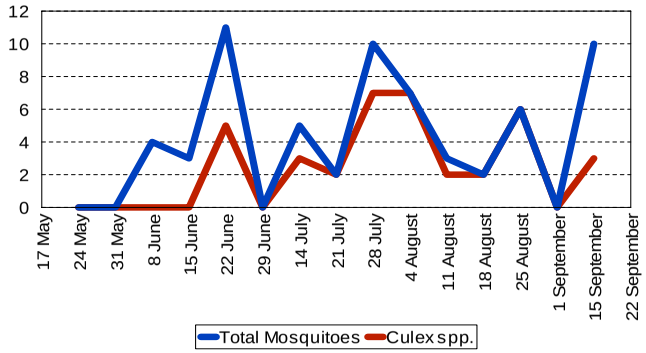
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 25 August 2006 (pool was combined with FC-54)

FC-02: 3907 Benthaven Street

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 3907 Benthaven Street
GPS: N40° 32.021', W105° 5.256'

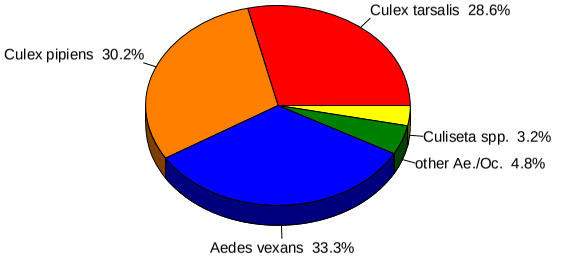
Total number of trap/nights set: 15
Total number of mosquitoes collected: 63
Average mosquitoes per trap/night: 4

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	21	33.3%
Other *Aedes/Ochlerotatus*	3	4.8%
Culex tarsalis	18	28.6%
Other *Culex*	19	30.2%
Culiseta inornata	2	3.2%



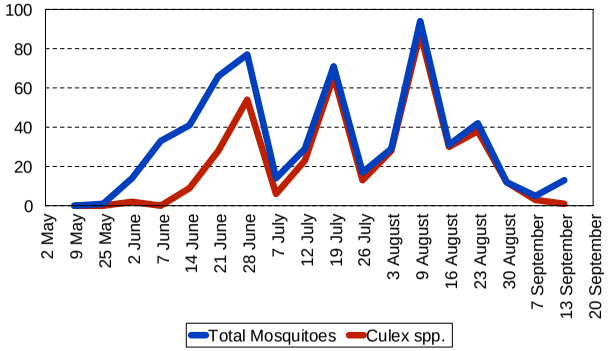
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV

FC-04: Bighorn Drive

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 2201 Bighorn Drive
GPS: N40° 32.103', W105° 2.252'

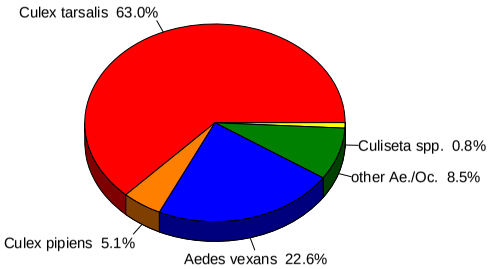
Total number of trap/nights set: 18
Total number of mosquitoes collected: 589
Average mosquitoes per trap/night: 33

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	133	22.6%
Other *Aedes/Ochlerotatus*	50	8.5%
Culex tarsalis	371	62.9%
Other *Culex*	30	5.1%
Culiseta inornata	5	0.8%



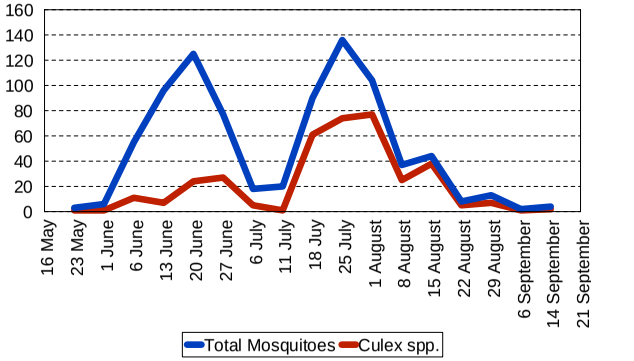
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 23 August 2006.

FC-06: North Linden

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
North Linden on Poudre River Trail
GPS: N40° 35.480, W105° 4.275'

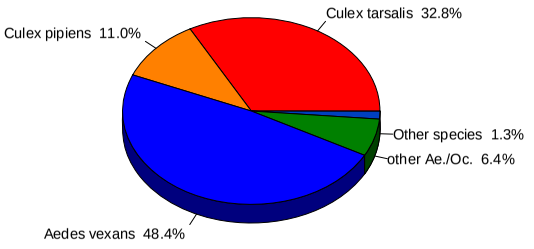
Total number of trap/nights set: 17
Total number of mosquitoes collected: 838
Average mosquitoes per trap/night: 49

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata
Anopheles hermsi



Species abundance:

Species	Number	Percent of Total
Aedes vexans	406	48.4%
Other *Aedes/Ochlerotatus*	54	6.4%
Culex tarsalis	275	32.8%
Other *Culex*	92	11.0%
Culiseta inornata	8	0.9%
Anopheles	3	0.4%



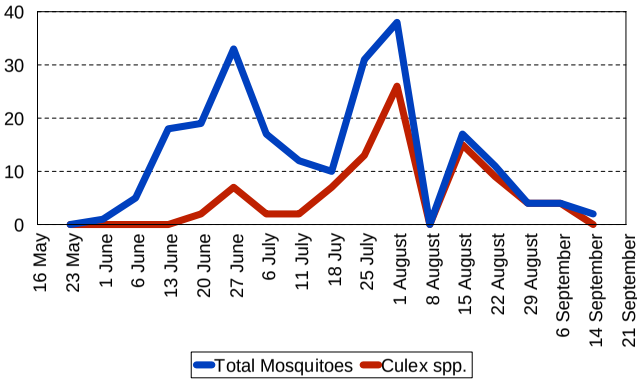
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-09: 720 Oak

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 720 Oak
GPS: N40° 35.480', W105° 5.357'

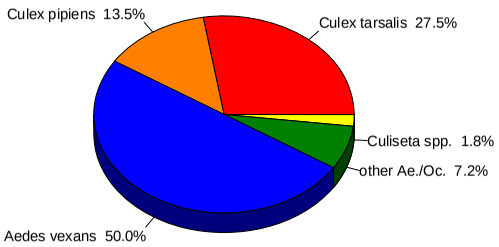
Total number of trap/nights set: 17
Total number of mosquitoes collected: 222
Average mosquitoes per trap/night: 13

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	111	50.0%
Other *Aedes/Ochlerotatus*	16	7.2%
Culex tarsalis	61	27.5%
Other *Culex*	30	13.5%
Culiseta inornata	4	1.8%



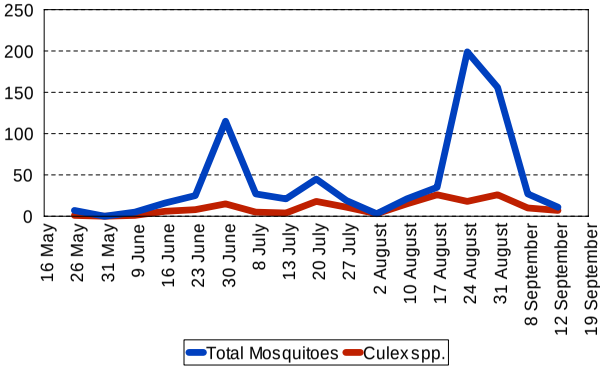
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-11: Golden Current

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Overland Trail and Golden Current
GPS: N40° 34.173', W105° 8.133'

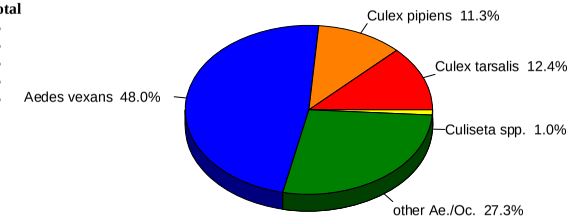
Total number of trap/nights set: 17
Total number of mosquitoes collected: 732
Average mosquitoes per trap/night: 43

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	351	48.0%
Other *Aedes/Ochlerotatus*	200	27.3%
Culex tarsalis	91	12.4%
Other *Culex*	83	11.3%
Culiseta inornata	7	1.0%



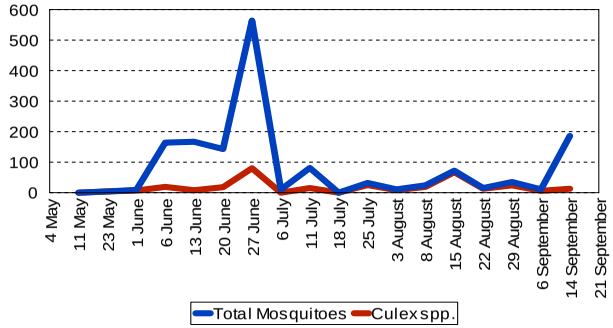
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 24 August 2006.

FC-14: Fort Collins Visitor Center

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Prospect and I-25 Frontage Road
GPS: N40° 33.916', W105° 3.92'

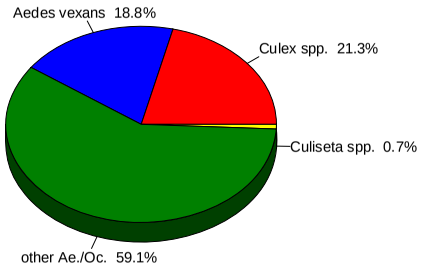
Total number of trap/nights set: 18
Total number of mosquitoes collected: 1528
Average mosquitoes per trap/night: 85

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	288	18.8%
Other *Aedes/Ochlerotatus*	903	59.1%
Culex tarsalis	275	17.9%
Other *Culex*	51	3.3%
Culiseta inornata	11	0.7%



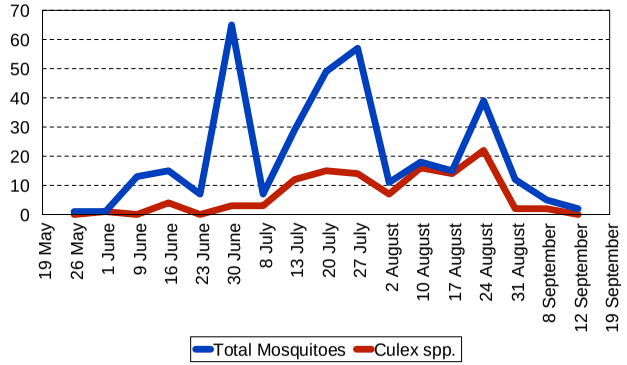
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 8 August 2006.

FC-15: Stuart and Dorset

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Stuart and Romeldale Ditch
GPS: N40° 33.614', W105° 7.444'

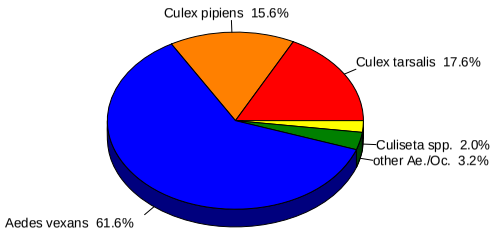
Total number of trap/nights set: 17
Total number of mosquitoes collected: 346
Average mosquitoes per trap/night: 20

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	213	61.6%
Other *Aedes/Ochlerotatus*	11	3.2%
Culex tarsalis	61	17.6%
Other *Culex*	54	15.6%
Culiseta inornata	7	2.0%



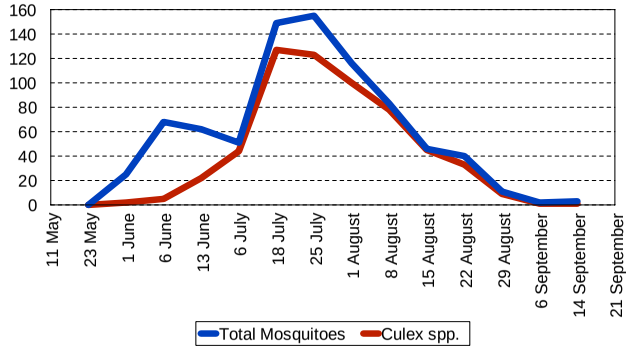
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-19: Edora Park

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Prospect and Welch @ Spring Creek Trail
GPS: 40° 33.933', W105° 3.144'

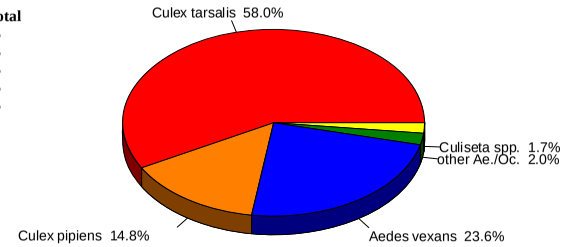
Total number of trap/nights set: 14
Total number of mosquitoes collected: 811
Average mosquitoes per trap/night: 58

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	191	23.6%
Other *Aedes/Ochlerotatus*	16	2.0%
Culex tarsalis	470	58.0%
Other *Culex*	120	14.8%
Culiseta inornata	14	1.7%



West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 15 August 2006.

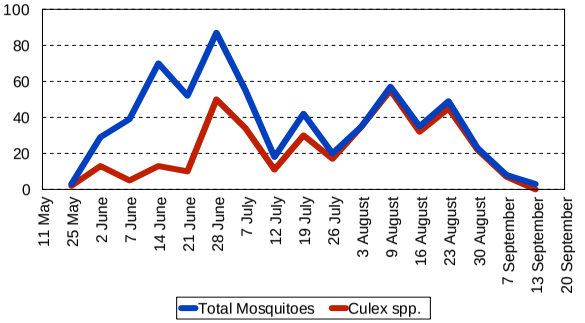
Note: This trap was not set for 2 weeks (20 June and 27 June).

FC-23: Boltz

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
720 Boltz Drive
(Boltz Junior High School)
GPS: N40° 32.669', W105° 3.860'

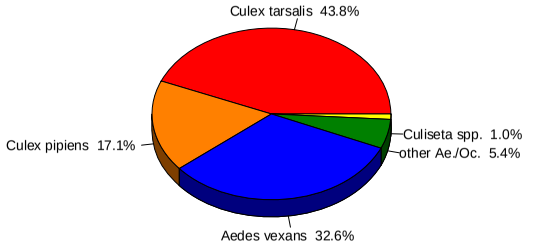
Total number of trap/nights set: 17
Total number of mosquitoes collected: 625
Average mosquitoes per trap/night: 37

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	204	32.6%
Other *Aedes/Ochlerotatus*	34	5.4%
Culex tarsalis	274	43.8%
Other *Culex*	107	17.1%
Culiseta inornata	6	1.0%



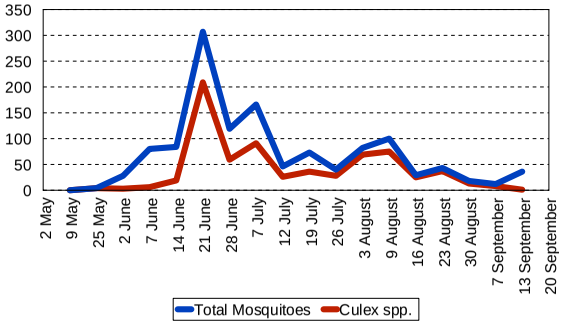
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 23 August 2006.

FC-27: San Luis

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 3001 San Luis
GPS: N40° 32.814', W105° 2.006'

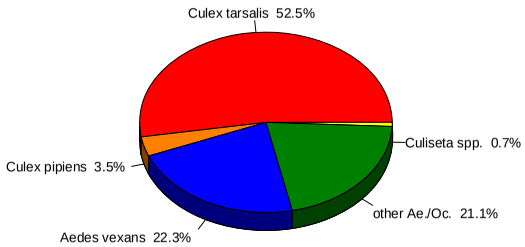
Total number of trap/nights set: 18
Total number of mosquitoes collected: 1267
Average mosquitoes per trap/night: 70

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	282	22.3%
Other *Aedes/Ochlerotatus*	267	21.1%
Culex tarsalis	665	52.5%
Other *Culex*	44	3.5%
Culiseta inornata	9	0.7%



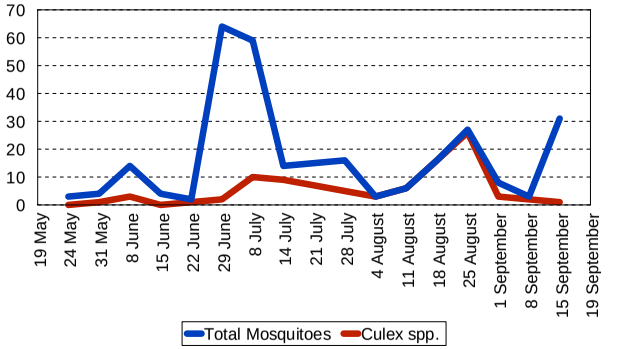
West Nile Virus Testing:
Three mosquito sample pools obtained from this trap site tested positive for WNV on 9 August (2 pools) and 23 August 2006.

FC-29: Ben's Park

Season: 2006
Trap Type: Light/CO_2
Location: Fort Colins,
Fossil Ridge Park
GPS: N40° 32.814', W105° 2.006'

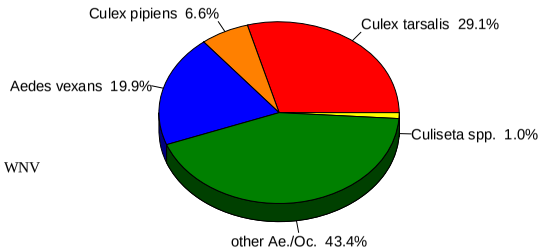
Total number of trap/nights set: 18
Total number of mosquitoes collected: 302
Average mosquitoes per trap/night: 17

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	60	19.9%
Other *Aedes/Ochlerotatus*	131	43.4%
Culex tarsalis	88	29.1%
Other *Culex*	20	6.6%
Culiseta inornata	3	1.0%



West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV (light/CO_2 trap only).

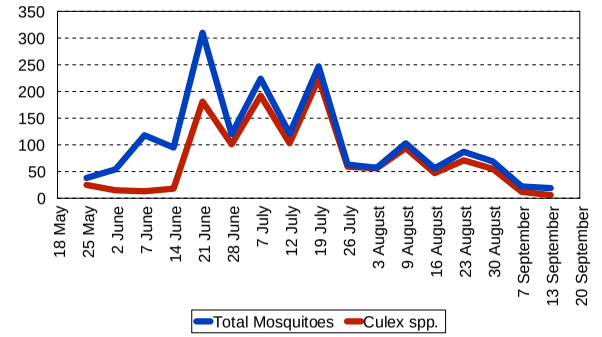
[see also results for the gravid trap at this location FC-29gr]

FC-30: Cambridge

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
4700 Cambridge Avenue
GPS: N40° 31.263', W105° 0.639'

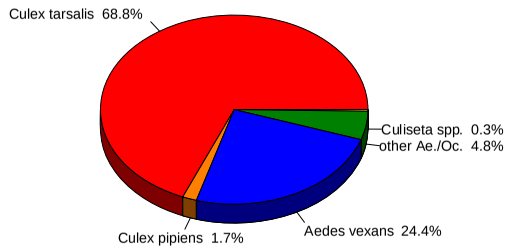
Total number of trap/nights set: 17
Total number of mosquitoes collected: 1803
Average mosquitoes per trap/night: 106

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	440	24.4%
Other *Aedes/Ochlerotatus*	86	4.8%
Culex tarsalis	1241	68.8%
Other *Culex*	31	1.7%
Culiseta inornata	5	0.3%



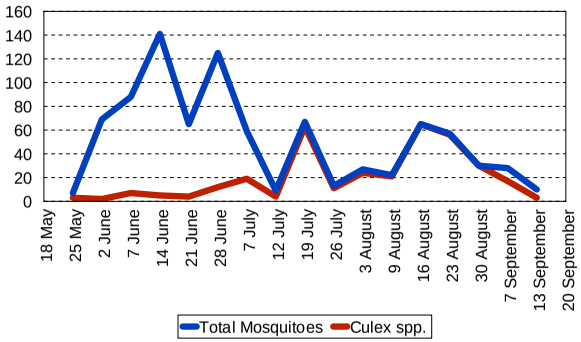
West Nile Virus Testing:
Four mosquito sample pools obtained from this trap site tested positive for WNV on 16 August, 23 August, 30 August, and 13 September 2006.

FC-31: Willow Springs

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Willow Springs HOA on Timberline
GPS: N40° 30.368', W105° 2.335'

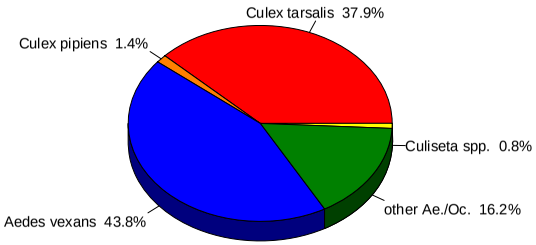
Total number of trap/nights set: 17
Total number of mosquitoes collected: 882
Average mosquitoes per trap/night: 52

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	386	43.8%
Other *Aedes/Ochlerotatus*	143	16.2%
Culex tarsalis	334	37.9%
Other *Culex*	12	1.4%
Culiseta inornata	7	0.8%



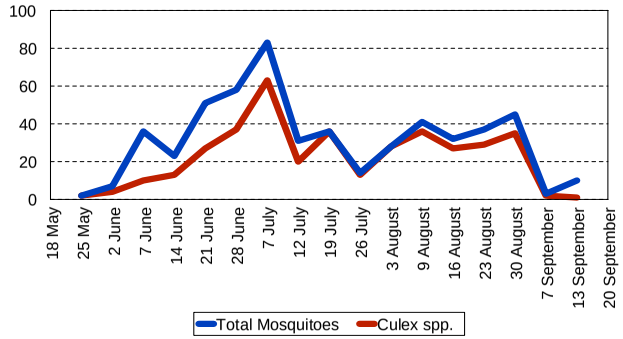
West Nile Virus Testing:
Two mosquito sample pools obtained from this trap site tested positive for WNV on 3 August and 7 September 2006.

FC-33: Sage Creek

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 5237 Zeigler
GPS: N40° 30.802', W105° 1.207'

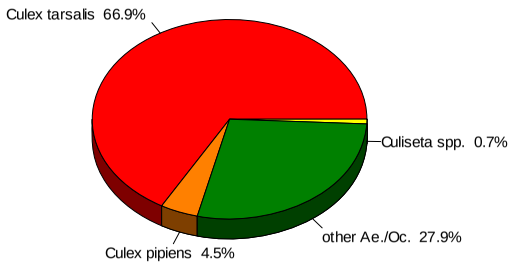
Total number of trap/nights set: 17
Total number of mosquitoes collected: 537
Average mosquitoes per trap/night: 32

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	77	14.3%
Other *Aedes/Ochlerotatus*	73	13.6%
Culex tarsalis	359	66.9%
Other *Culex*	24	4.5%
Culiseta inornata	4	0.7%



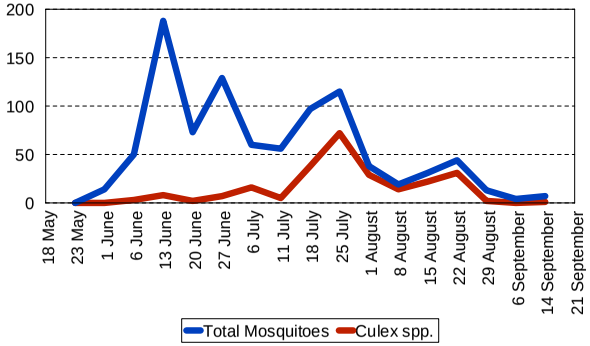
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 3 August 2006.

FC-34: Country Club

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
1400 Richard's Lake Road
GPS: N40° 37.594', W105° 3.113'

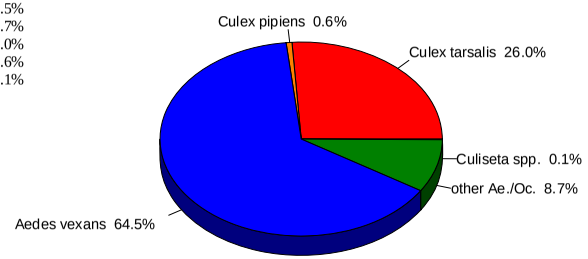
Total number of trap/nights set: 17
Total number of mosquitoes collected: 938
Average mosquitoes per trap/night: 55

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	605	64.5%
Other *Aedes/Ochlerotatus*	82	8.7%
Culex tarsalis	244	26.0%
Other *Culex*	6	0.6%
Culiseta inornata	1	0.1%



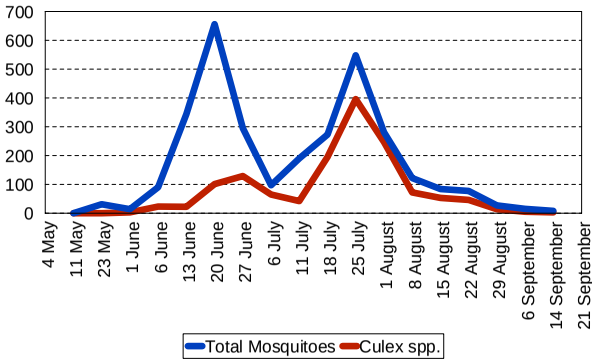
West Nile Virus Testing:
Two mosquito sample pools obtained from this trap site tested positive for WNV on 15 August 2006 and 22 August 2006.

FC-36: Hemlock

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Hemlock Street at the River's Edge FCNA
GPS: N40° 36.008', W105° 4.771'

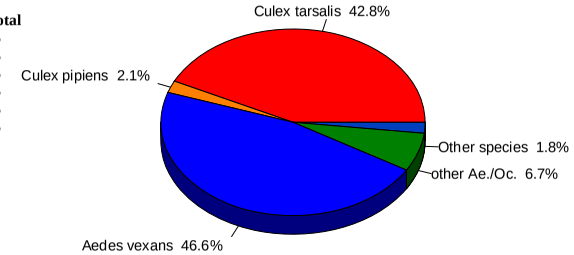
Total number of trap/nights set: 18
Total number of mosquitoes collected: 3152
Average mosquitoes per trap/night: 175

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans



Species abundance:

Species	Number	Percent of Total
Aedes vexans	1469	46.6%
Other *Aedes/Ochlerotatus*	210	6.7%
Culex tarsalis	1350	42.8%
Other *Culex*	66	2.1%
Culiseta inornata	9	0.3%
Coquillettidia	48	1.5%



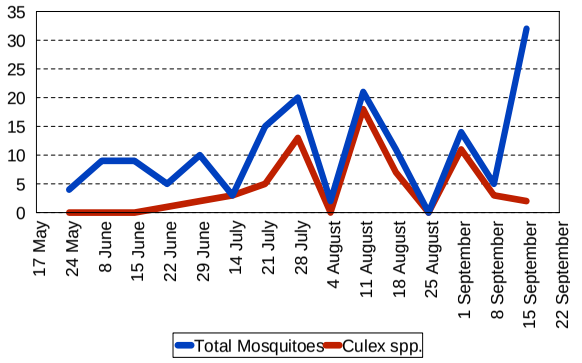
West Nile Virus Testing:
Two mosquito sample pools obtained from this trap site tested positive for WNV on 1 August 2006 and 22 August 2006.

FC-37: Chelsea Ridge

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
1113 Wooded Creek Road
GPS: N40° 31.003', W105° 5.910'

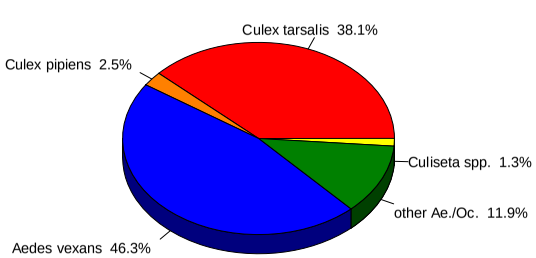
Total number of trap/nights set: 15
Total number of mosquitoes collected: 160
Average mosquitoes per trap/night: 11

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	74	46.3%
Other *Aedes/Ochlerotatus*	19	11.9%
Culex tarsalis	61	38.1%
Other *Culex*	4	2.5%
Culiseta inornata	2	1.3%



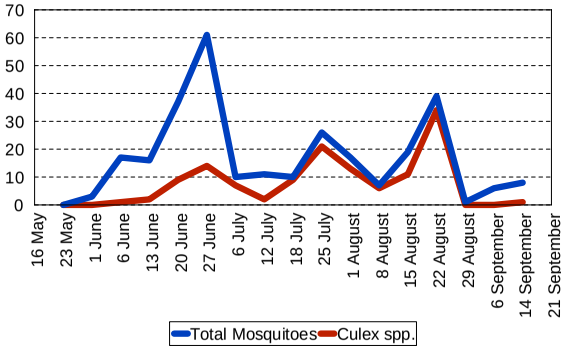
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-38: Lochside Lane

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Lockside Lane and Glenlock Drive
GPS: N40° 35.939', W105° 0.426'

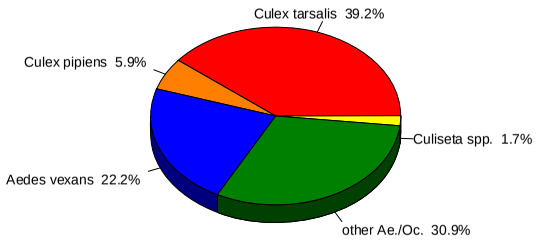
Total number of trap/nights set: 17
Total number of mosquitoes collected: 288
Average mosquitoes per trap/night: 17

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta incidens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	64	22.2%
Other *Aedes/Ochlerotatus*	89	30.9%
Culex tarsalis	113	39.2%
Other *Culex*	17	5.9%
Culiseta inornata	4	1.4%
Other *Culiseta*	1	0.3%



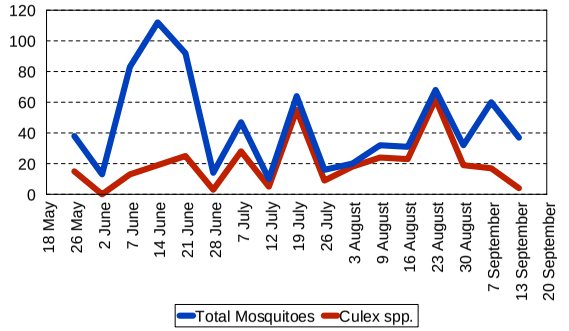
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 1 August 2006.

FC-39: Fossil Creek South

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Timberline and County Road 32
GPS: N40° 28.844', W105° 2.349'

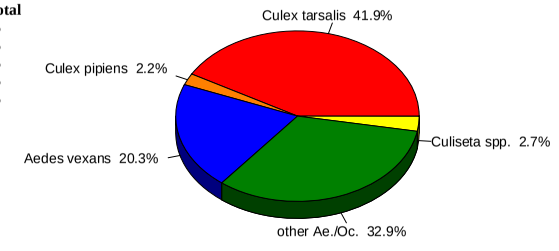
Total number of trap/nights set: 17
Total number of mosquitoes collected: 769
Average mosquitoes per trap/night: 45

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) epactius
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	156	20.3%
Other *Aedes/Ochlerotatus*	253	32.9%
Culex tarsalis	322	41.9%
Other *Culex*	17	2.2%
Culiseta inornata	21	2.7%



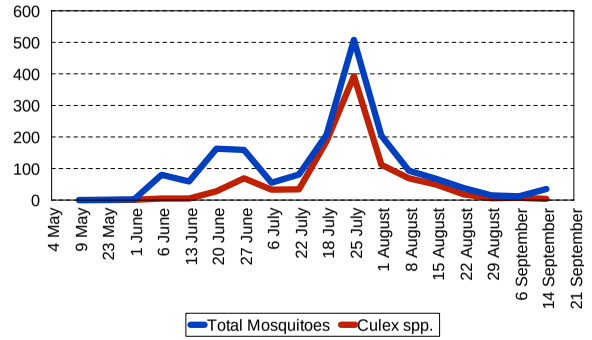
West Nile Virus Testing:
Three mosquito sample pools obtained from this trap site tested positive for WNV on 26 July, 9 August, and 23 August 2006.

FC-40: Redwood

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, Redwood and Conifer
GPS: N40° 36.190', W105° 4.027'

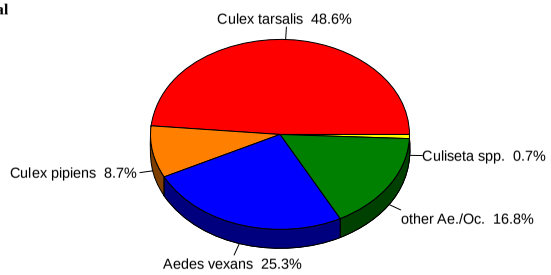
Total number of trap/nights set: 18
Total number of mosquitoes collected: 1779
Average mosquitoes per trap/night: 99

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	450	25.3%
Other *Aedes/Ochlerotatus*	298	16.8%
Culex tarsalis	865	48.6%
Other *Culex*	154	8.7%
Culiseta inornata	12	0.7%



West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV. (light/CO_2 trap only).

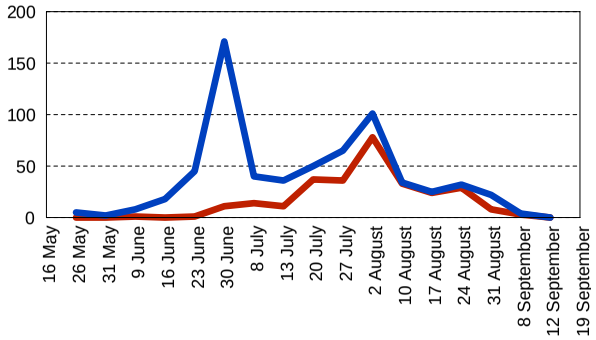
[see also results for the gravid trap at this location FC-40gr]

FC-41: Fishback

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Fishback and Richards Place Alley
GPS: N40° 35.282', W105° 6.262'

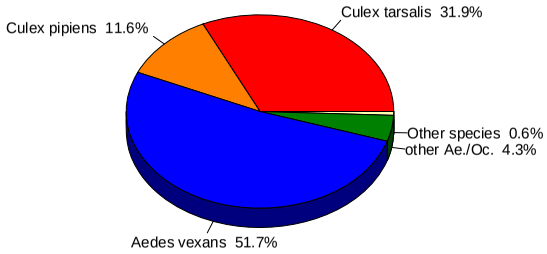
Total number of trap/nights set: 17
Total number of mosquitoes collected: 658
Average mosquitoes per trap/night: 39

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans



Species abundance:

Species	Number	Percent of Total
Aedes vexans	340	51.7%
Other *Aedes/Ochlerotatus*	28	4.3%
Culex tarsalis	210	31.9%
Other *Culex*	76	11.6%
Culiseta inornata	3	0.5%
Coquillettidia	1	0.1%



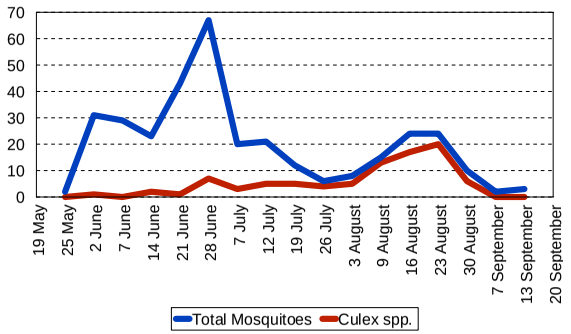
West Nile Virus Testing:
Two mosquito sample pools obtained from this trap site tested positive for WNV on 20 July and 24 August 2006.

FC-46: 725 Westshore Court

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
725 Westshore Court
GPS: N40° 31.789', W105° 3.926'

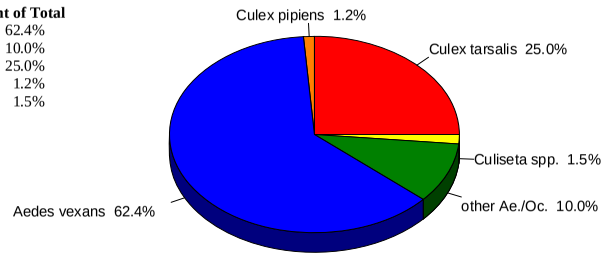
Total number of trap/nights set: 17
Total number of mosquitoes collected: 340
Average mosquitoes per trap/night: 20

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	212	62.4%
Other *Aedes/Ochlerotatus*	34	10.0%
Culex tarsalis	85	25.0%
Other *Culex*	4	1.2%
Culiseta inornata	5	1.5%



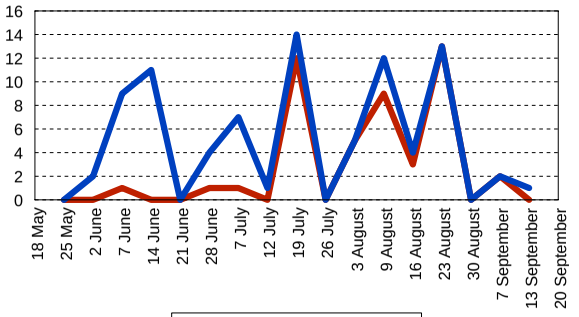
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-47: Keenland and Twin Oak

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Keenland and Twin Oak detention basin
GPS: N40° 30.907', W105° 3.177'

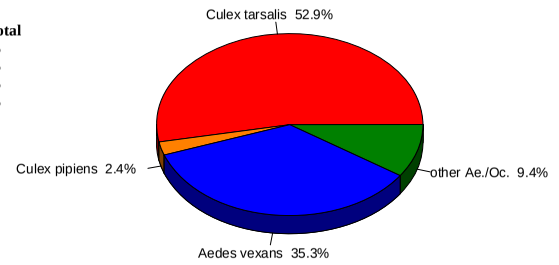
Total number of trap/nights set: 17
Total number of mosquitoes collected: 85
Average mosquitoes per trap/night: 5

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex pipiens
Culex tarsalis



Species abundance:

Species	Number	Percent of Total
Aedes vexans	30	35.3%
Other *Aedes/Ochlerotatus*	8	9.4%
Culex tarsalis	45	52.9%
Other *Culex*	2	2.4%



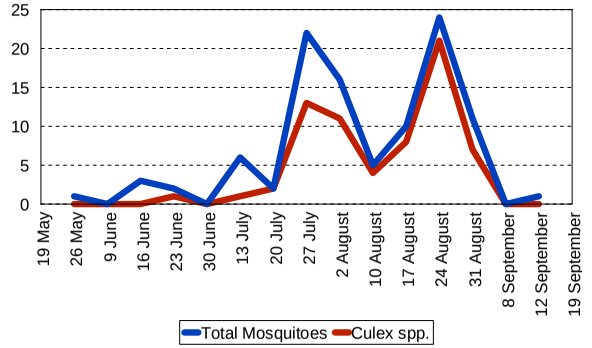
West Nile Virus Testing:
One mosquito sample pool from this trap site tested positive for WNV on 23 August 2006.

FC-49: Casa Grande and Downing

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Casa Grande and Downing at Ditch
GPS: N40° 32.525', W105° 6.042'

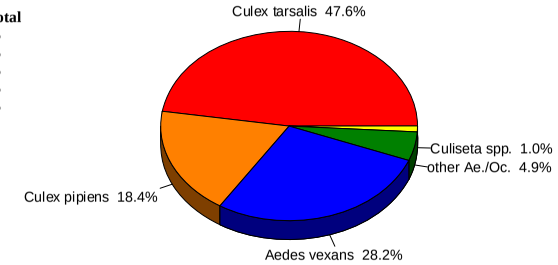
Total number of trap/nights set: 15
Total number of mosquitoes collected: 103
Average mosquitoes per trap/night: 7

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	29	28.2%
Other *Aedes/Ochlerotatus*	5	4.9%
Culex tarsalis	49	47.6%
Other *Culex*	19	18.4%
Culiseta inornata	1	1.0%



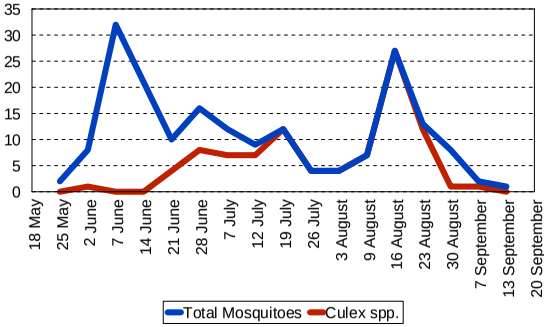
West Nile Virus Testing:
No mosquito sample pools obtained from this trap site tested positive for WNV.

FC-50: Golden Meadows Ditch

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
1513 Ticonderoga at Ditch
GPS: N40° 31.745', W105° 3.042'

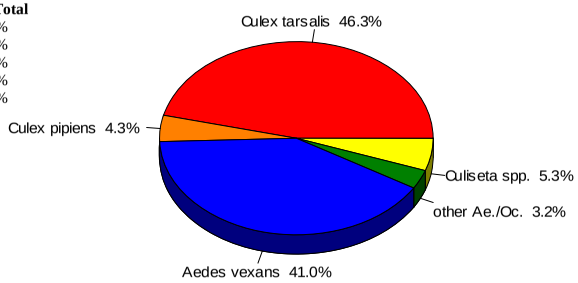
Total number of trap/nights set: 17
Total number of mosquitoes collected: 188
Average mosquitoes per trap/night: 11

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	77	41.0%
Other *Aedes/Ochlerotatus*	6	3.2%
Culex tarsalis	87	46.3%
Other *Culex*	8	4.3%
Culiseta inornata	10	5.3%



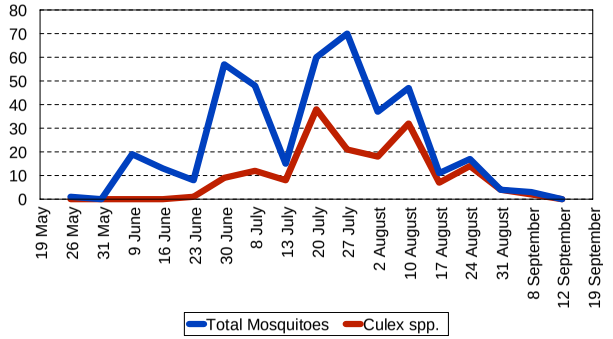
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-52: 603 Gilgalad Way

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
603 Gilgalad Way
GPS: N40° 33.690', W105° 5.205'

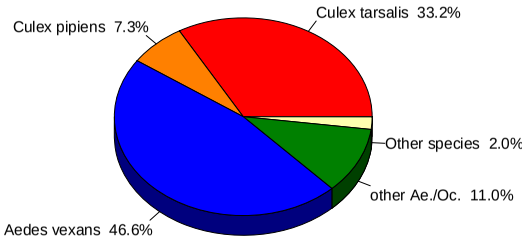
Total number of trap/nights set: 17
Total number of mosquitoes collected: 410
Average mosquitoes per trap/night: 24

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans



Species abundance:

Species	Number	Percent of Total
Aedes vexans	191	46.6%
Other *Aedes/Ochlerotatus*	45	11.0%
Culex tarsalis	136	33.2%
Other *Culex*	30	7.3%
Culiseta inornata	6	1.5%
Coquillettidia	2	0.5%



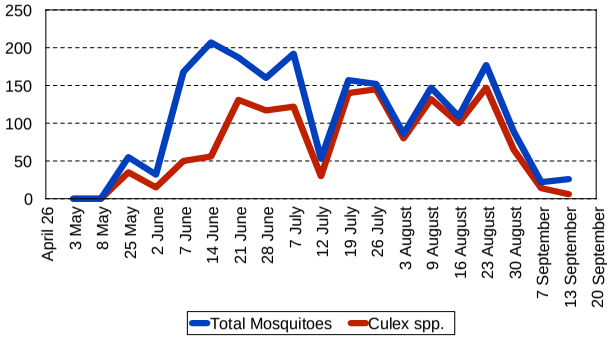
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-53: Egret and Rookery

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 3480 Egret Lane
GPS: N40° 29.878', W105° 0.694'

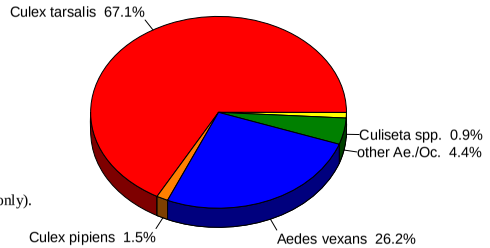
Total number of trap/nights set: 19
Total number of mosquitoes collected: 2019
Average mosquitoes per trap/night: 106

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	528	26.2%
Other *Aedes/Ochlerotatus*	88	4.4%
Culex tarsalis	1355	67.1%
Other *Culex*	30	1.5%
Culiseta inornata	18	0.9%



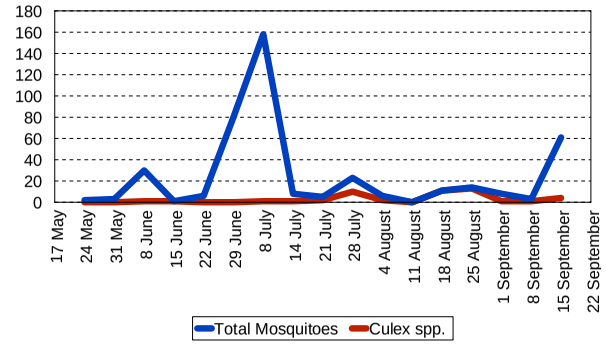
West Nile Virus Testing:
Seven mosquito sample pools obtained from this trap site tested positive for WNV on 3 August, 16 August (2 pools), 23 August (2 pools), 30 August, and 7 September 2006. (light/CO_2 trap only).

[see also results for the gravid trap at this location FC-53gr]

FC-54: 737 Parliment

Season: 2006
Trap Type: Light/CO_2
Location: 737 Parliment
GPS: N40° 30.021', W105° 3.822'

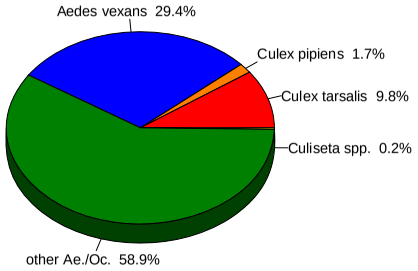
Total number of trap/nights set: 17
Total number of mosquitoes collected: 419
Average mosquitoes per trap/night: 25



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	123	29.4%
Other *Aedes/Ochlerotatus*	247	58.9%
Culex tarsalis	41	9.8%
Other *Culex*	7	1.7%
Culiseta inornata	1	0.2%

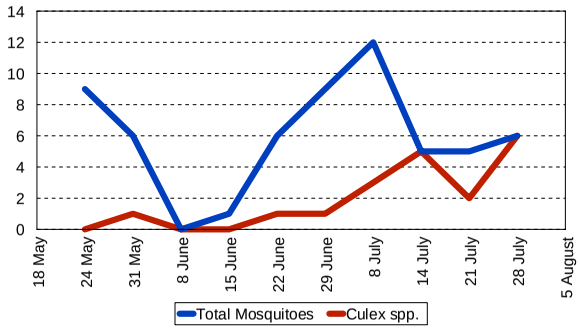


West Nile Virus Testing:
One mosquito sample pool from this trap site tested positive for WNV on 25 August 2006 (pool was combined with FC-01).

FC-55: Dragonfly Lair FCNA

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Harmony and Wakerobin Lane
GPS: +40.5259833, -105.099633

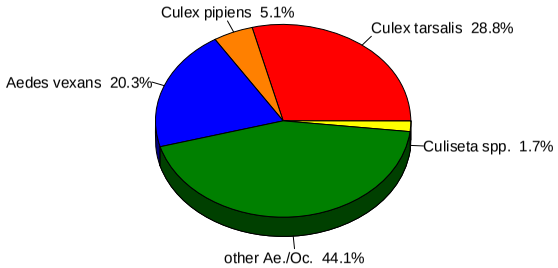
Total number of trap/nights set: 10
Total number of mosquitoes collected: 59
Average mosquitoes per trap/night: 6



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	12	20.3%
Other *Aedes/Ochlerotatus*	26	44.1%
Culex tarsalis	17	28.8%
Other *Culex*	3	5.1%
Culiseta inornata	1	1.7%



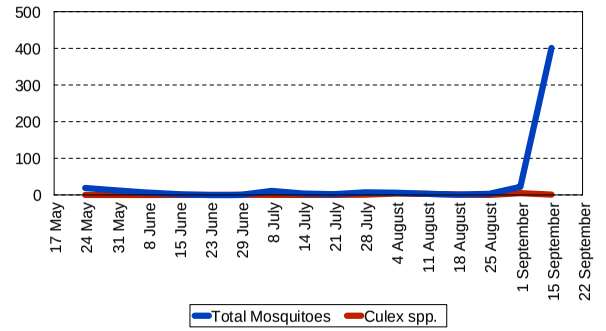
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

Note: This trap was not set after July 28th as a result of inaccessibility due to parcel rezoning FC-55 was replaced by FC-71(Silvergate).

FC-57: Registry Ridge-End of Ranger Drive

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
between 7262 and 7256 Ranger Drive
GPS: N40° 29.055', W105° 6.305'

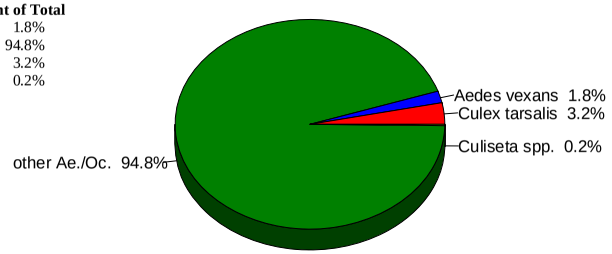
Total number of trap/nights set: 16
Total number of mosquitoes collected: 500
Average mosquitoes per trap/night: 31



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	9	1.8%
Other *Aedes/Ochlerotatus*	474	94.8%
Culex tarsalis	16	3.2%
Culiseta inornata	1	0.2%

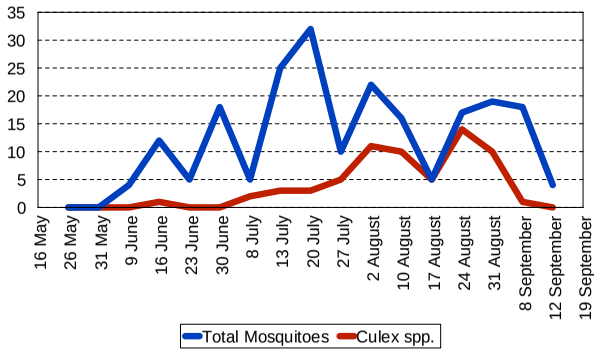


West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-58: Spring Creek Trail at Michener Drive

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Spring Creek Trail at Michener Drive
GPS: N40° 35.480, W105° 4.275'

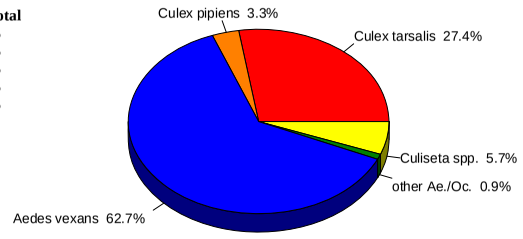
Total number of trap/nights set: 16
Total number of mosquitoes collected: 212
Average mosquitoes per trap/night: 13



Species collected:
Aedes vexans
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	133	62.7%
Other *Aedes/Ochlerotatus*	2	0.9%
Culex tarsalis	58	27.4%
Other *Culex*	7	3.3%
Culiseta inornata	12	5.7%



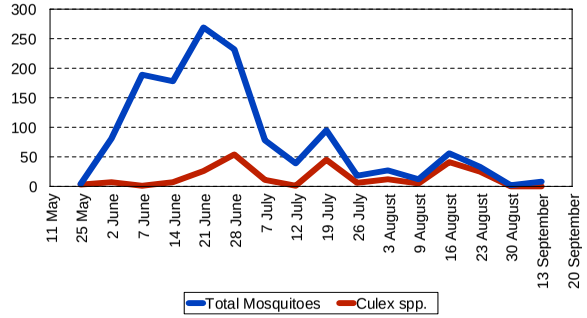
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-59: Springwood and Lockwood

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Nelson Farm Storm Water Detention Pond
GPS: N40° 32.537', W105° 2.728'

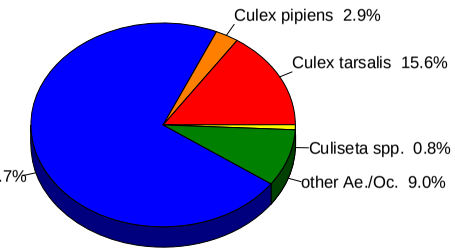
Total number of trap/nights set: 16
Total number of mosquitoes collected: 1321
Average mosquitoes per trap/night: 83

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Aedes (Oc.) trivitatus
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans



Species abundance:

Species	Number	Percent of Total
Aedes vexans	947	71.7%
Other *Aedes/Ochlerotatus*	119	9.0%
Culex tarsalis	206	15.6%
Other *Culex*	38	2.9%
Culiseta inornata	10	0.8%
Coquillettidia	1	0.07%



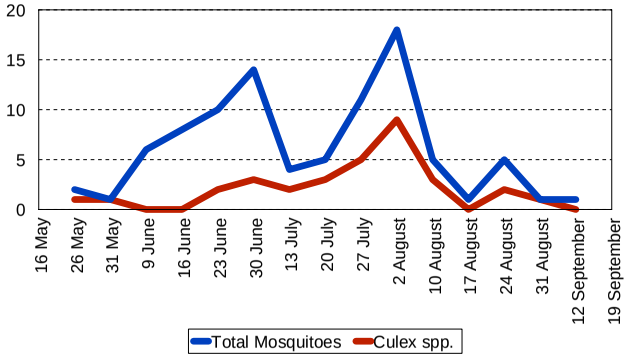
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-60: 808 Ponderosa

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 808 Ponderosa
GPS: N40° 34.668', W105° 7.216'

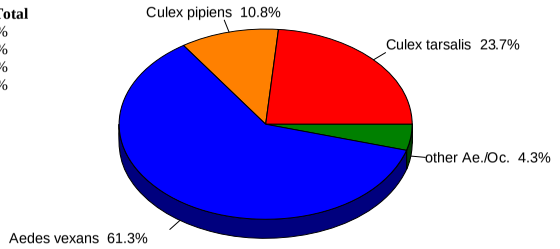
Total number of trap/nights set: 15
Total number of mosquitoes collected: 92
Average mosquitoes per trap/night: 6

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens



Species abundance:

Species	Number	Percent of Total
Aedes vexans	56	61.3%
Other *Aedes/Ochlerotatus*	4	4.3%
Culex tarsalis	22	23.7%
Other *Culex*	10	10.8%



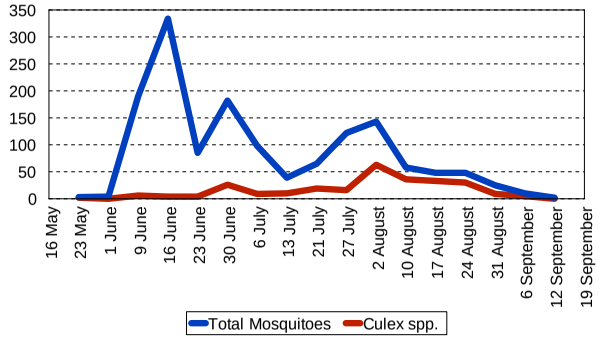
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-61: CSU Holley Environmental Plant Research Center

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
CSU Holley Environmental
Plant Research Center
GPS: N40° 34.153', W105° 5.524'

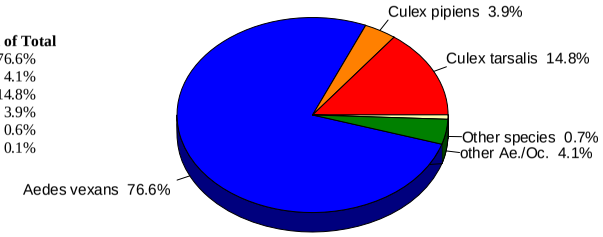
Total number of trap/nights set: 17
Total number of mosquitoes collected: 1456
Average mosquitoes per trap/night: 86

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans



Species abundance:

Species	Number	Percent of Total
Aedes vexans	1115	76.6%
Other *Aedes/Ochlerotatus*	59	4.1%
Culex tarsalis	215	14.8%
Other *Culex*	57	3.9%
Culiseta inornata	9	0.6%
Anopheles	1	0.1%



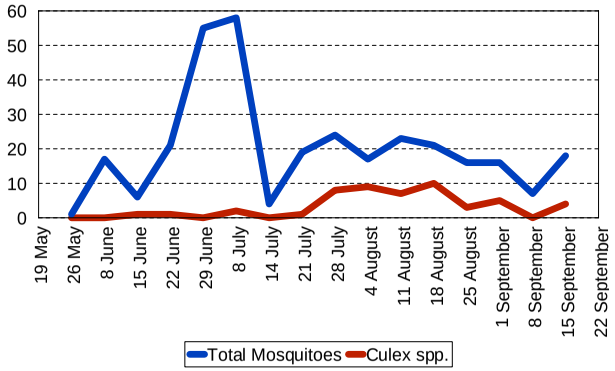
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV 17 August 2006.

FC-62: Water's Edge FCNA at Blue Mesa Court

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Water's Edge FCNA at Blue Mesa Court
GPS: N40° 32.545, W105° 5.229'

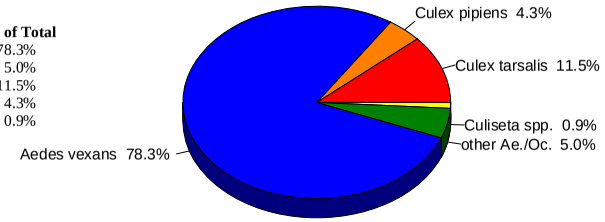
Total number of trap/nights set: 16
Total number of mosquitoes collected: 323
Average mosquitoes per trap/night: 20

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	253	78.3%
Other *Aedes/Ochlerotatus*	16	5.0%
Culex tarsalis	37	11.5%
Other *Culex*	14	4.3%
Culiseta inornata	3	0.9%



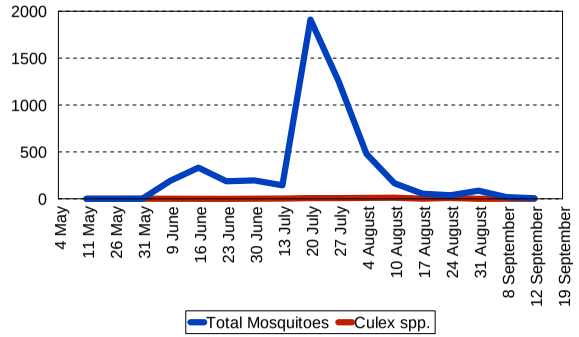
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-63: Red Fox Meadows FCNA

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, Prospect and Heatheridge
GPS: N40° 33.925', W105° 6.312'

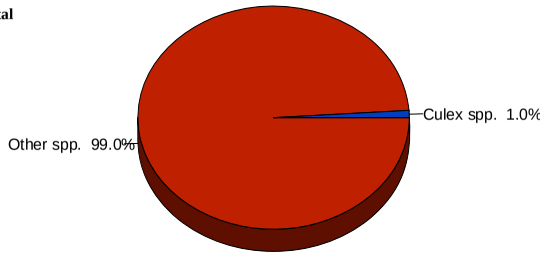
Total number of trap/nights set: 16
Total number of mosquitoes collected: 5067
Average mosquitoes per trap/night: 317

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	4868	93.7%
Other *Aedes/Ochlerotatus*	127	2.4%
Culex tarsalis	41	0.8%
Other *Culex*	10	0.2%
Culiseta inornata	21	0.4%



West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV 24 August 2006. (light/CO_2 trap only).

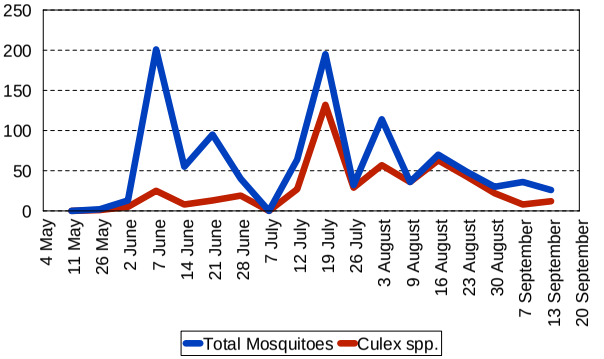
[see also results for the gravid trap at this location FC-63gr]

FC-64: Kechter Farm at East Trilby

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Kechter Farm at East Trilby dead end
GPS: N40° 29.915', W105° 1.787'

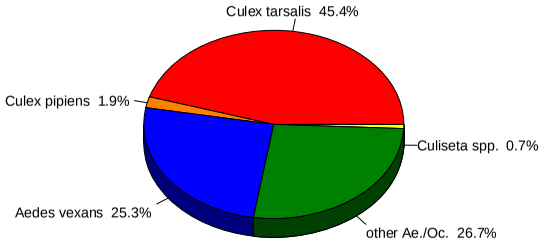
Total number of trap/nights set: 17
Total number of mosquitoes collected: 1058
Average mosquitoes per trap/night: 62

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	268	25.3%
Other *Aedes/Ochlerotatus*	283	26.7%
Culex tarsalis	480	45.4%
Other *Culex*	20	1.9%
Culiseta inornata	7	0.7%



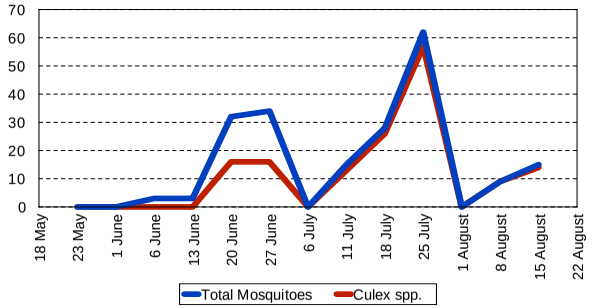
West Nile Virus Testing:
Five mosquito sample pools obtained from this trap site tested positive for WNV on 19 August (2 pools), 23 August, 30 August, and 13 September 2006.

FC-65: 701 Elizabeth

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 701 Elizabeth
GPS: +40.68777, -105.068611

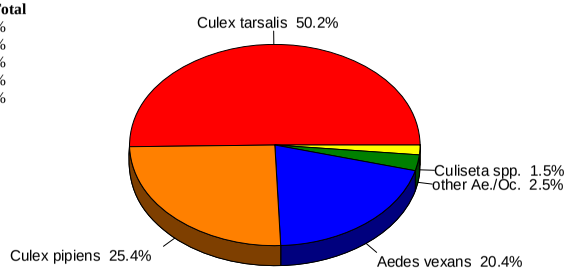
Total number of trap/nights set: 11
Total number of mosquitoes collected: 201
Average mosquitoes per trap/night: 18

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata



Species abundance:

Species	Number	Percent of Total
Aedes vexans	41	20.4%
Other *Aedes/Ochlerotatus*	5	2.5%
Culex tarsalis	101	50.2%
Other *Culex*	51	25.4%
Culiseta inornata	3	1.5%



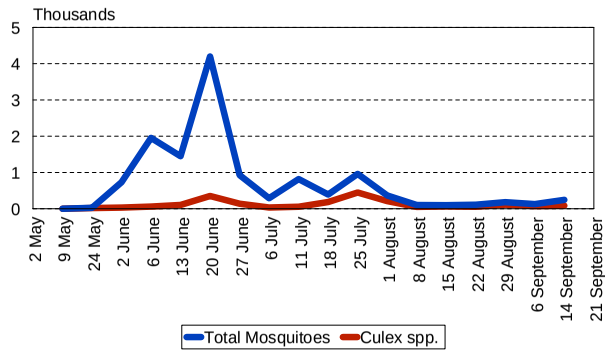
West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

Note: This trap was relocated after learning that the homeowner purchased 2 mosquito magnets. The last trapping day was 15 August 2006. This trap was replaced by FC-72 (422 Lake Drive).

FC-66: Prospect Ponds FCNA @ Drake Reclamation

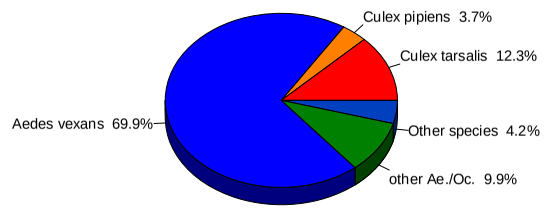
Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, Prospect Ponds FCNA
GPS: N40° 33.525', W105° 1.312'
Total number of trap/nights set: 19
Total number of mosquitoes collected: 12,979
Average mosquitoes per trap/night: 683

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta incidens
Culiseta inornata
Anopheles hemsi
Coquillettidia perturbans



Species abundance:

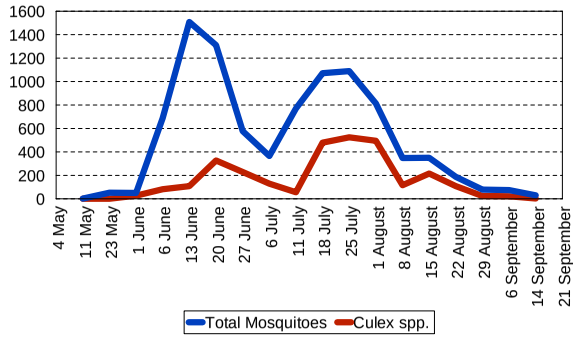
Species	Number	Percent of Total
Aedes vexans	9070	69.9%
Other *Aedes/Ochlerotatus*	1285	9.9%
Culex tarsalis	1600	12.3%
Other *Culex*	480	3.7%
Culiseta	118	0.9%
Anopheles	28	0.2%
Coquillettidia	398	3.1%



West Nile Virus Testing:
Three mosquito sample pools obtained from this trap site tested positive for WNV on 18 July, 8 August, and 15 August.

FC-67: Poudre River Trail at Mulberry and Lemay

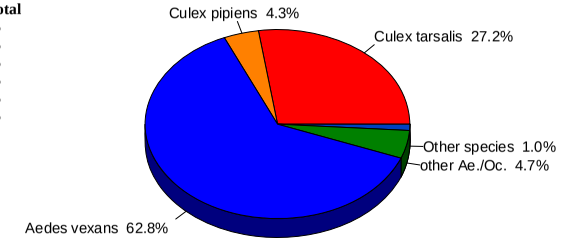
Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Poudre River Trail at Mulberry and Lemay
GPS: N40° 34.742', W105° 3.335'
Total number of trap/nights set: 18
Total number of mosquitoes collected: 9365
Average mosquitoes per trap/night: 520



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata
Coquillettidia perturbans

Species abundance:

Species	Number	Percent of Total
Aedes vexans	5880	62.8%
other Ae/Oc.	441	4.7%
Culex tarsalis	2549	27.2%
Other *Culex*	399	4.3%
Culiseta inornata	61	0.6%
Coquillettidia	35	0.4%

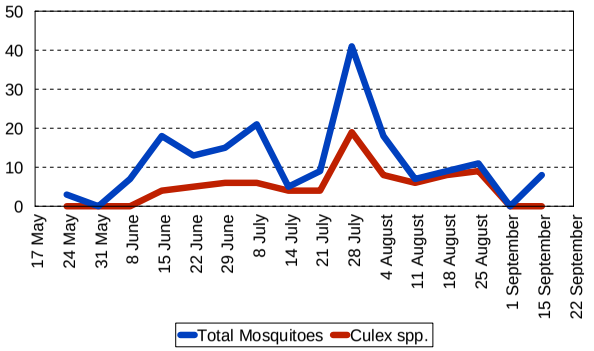


West Nile Virus Testing:
Three mosquito sample pools obtained from this trap site tested positive for WNV on 8 August, 29 August, and 6 September 2006.

FC-68: 502 Crest Drive

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
502 Crest Drive
GPS: N40° 32.987', W105° 5.155'

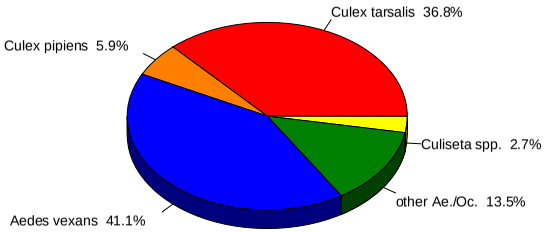
Total number of trap/nights set: 16
Total number of mosquitoes collected: 185
Average mosquitoes per trap/night: 12



Species collected:
Aedes vexans
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	76	41.1%
Other *Aedes/Ochlerotatus*	25	13.5%
Culex tarsalis	68	36.8%
Other *Culex*	11	5.9%
Culiseta inornata	5	2.7%

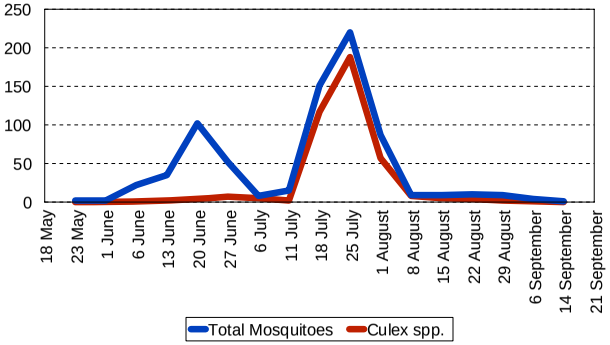


West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-69: Lindenwood HOA

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
2005 Linden Lake Rd
GPS: N40° 36.856', W105° 3.198'

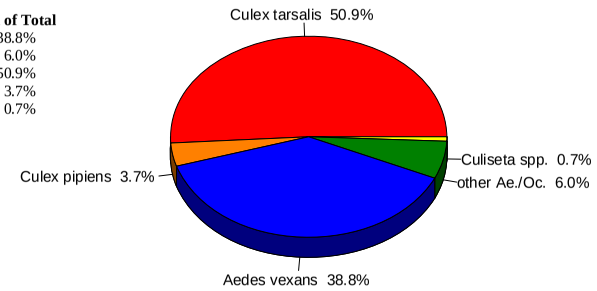
Total number of trap/nights set: 17
Total number of mosquitoes collected: 738
Average mosquitoes per trap/night: 43



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	286	38.8%
Other *Aedes/Ochlerotatus*	44	6.0%
Culex tarsalis	376	50.9%
Other *Culex*	27	3.7%
Culiseta inornata	5	0.7%

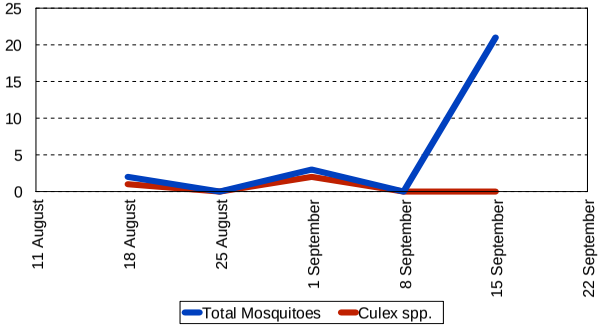


West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

FC-71: Silvergate

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins,
Silvergate and Harmony
GPS: N40° 31.650', W105° 6.478'

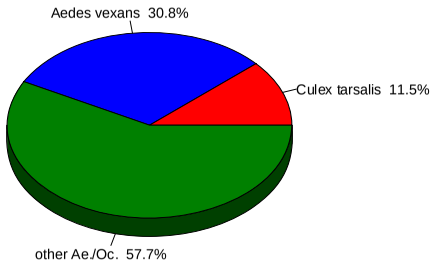
Total number of trap/nights set: 5
Total number of mosquitoes collected: 26
Average mosquitoes per trap/night: 5



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) trivittatus
Culex tarsalis

Species abundance:

Species	Number	Percent of Total
Aedes vexans	8	30.8%
Other *Aedes/Ochlerotatus*	15	57.7%
Culex tarsalis	3	11.5%



West Nile Virus Testing:
No mosquito sample pools from this trap site tested positive for WNV.

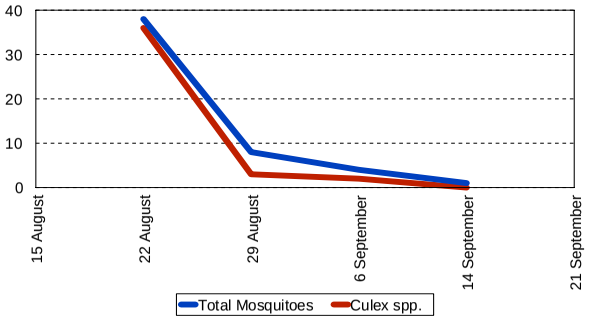
Note: This trap was first set on 18 August. FC-71 will replace the trap set at Dragonfly Lair FCNA (FC-55).

FC-72: 422 Lake Drive Alley

Season: 2006
Trap Type: Light/CO_2
Location: Fort Collins, 422 Lake Drive Alley
GPS: N40° 34.150', W105° 4.277'

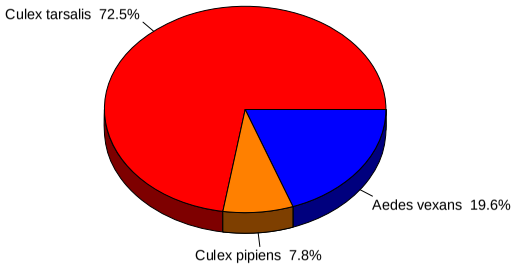
Total number of trap/nights set: 4
Total number of mosquitoes collected: 51
Average mosquitoes per trap/night: 13

Species collected:
Aedes vexans
Culex tarsalis
Culex pipiens



Species abundance:

Species	Number	Percent of Total
Aedes vexans	10	19.6%
Culex tarsalis	37	72.5%
Other *Culex*	4	7.8%
Culiseta inornata	0	0.0%



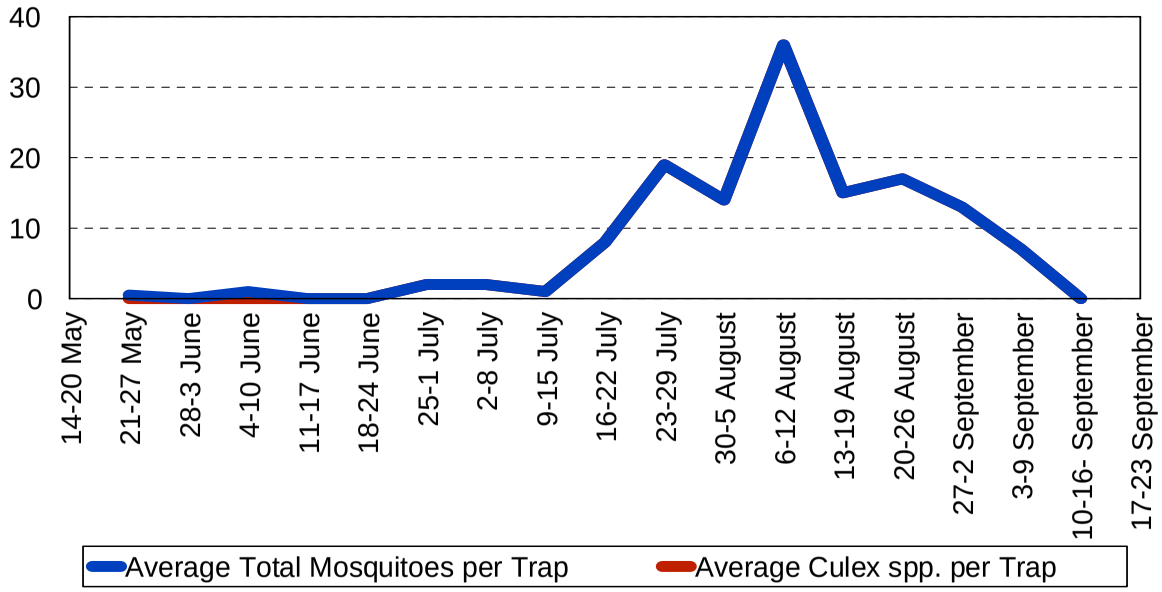
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 22 August 2006.

Note: FC-72 was first set on 22 August 2006. This trap replaced the trap set at 701 Elizabeth (FC-65).

2006 Fort CollinsGravid Trap Composite Data

Total number of trap/nights set: 65
Total number of mosquitoes collected: 570
Average mosquitoes per trap/night: 9

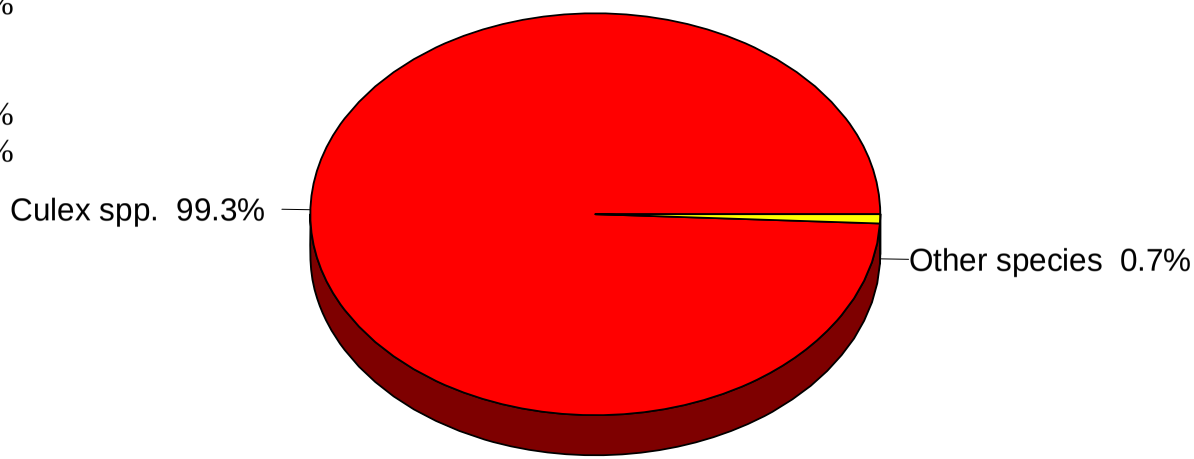
Trap sites included in this data:
FC-29gr, FC-40gr, FC-53gr,
FC-63gr, FC-66gr



Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melanimon
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

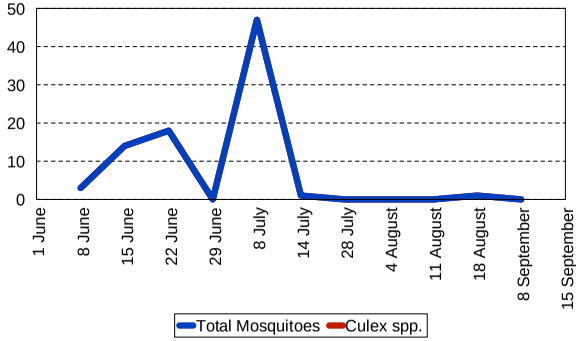
Species	Number	Percent of Total
Aedes (Oc.) spp.	2	0.35%
Anopheles spp.	0	0.0%
Coquillettidia spp.	0	0.0%
Culex spp.	566	99.3%
Culiseta spp.	2	0.35%



FC-29gr: Ben's Park

Season: 2006
Trap Type: Gravid
Location: Fort Collins, Fossil Ridge Park
GPS: N40° 32.814', W105° 2.006'

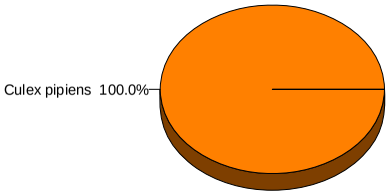
Total number of trap/nights set: 11
Total number of mosquitoes collected: 84
Average mosquitoes per trap/night: 8



Species collected:
Culex pipiens

Species abundance:

Species	Number	Percent of Total
Aedes vexans	0	0.0%
Other *Aedes/Ochlerotatus*	0	0.0%
Culex tarsalis	0	0.0%
Culex pipiens	84	100.0%
Culiseta inornata	0	0.0%



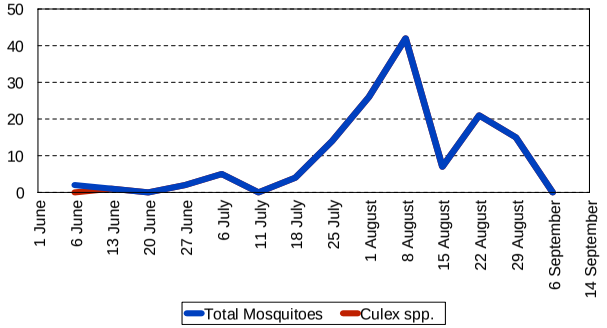
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV 8 September 2006.

[see also results for the Light trap at this location (FC-29)]

FC-40gr: Redwood

Season: 2006
Trap Type: Gravid
Location: Fort Collins, Redwood and Conifer
GPS: N40° 36.190', W105° 4.027'

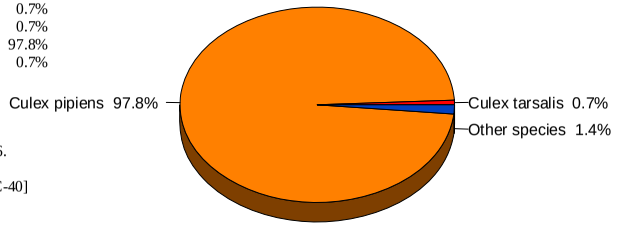
Total number of trap/nights set: 14
Total number of mosquitoes collected: 139
Average mosquitoes per trap/night: 10



Species collected:
Aedes vexans
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	1	0.7%
Culex tarsalis	1	0.7%
Culex pipiens	136	97.8%
Culiseta inornata	1	0.7%



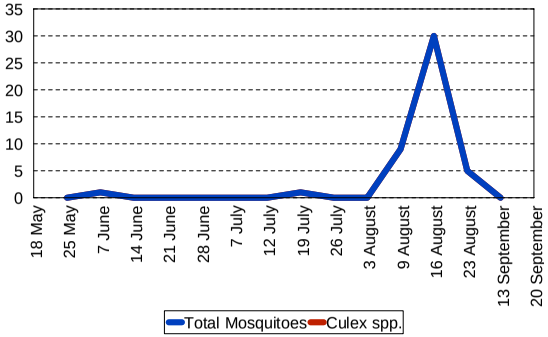
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 8 August 2006.

[see also results for the light trap at this location FC-40]

FC-53gr: Egret and Rookery

Season: 2006
Trap Type: Gravid
Location: Fort Collins, 3480 Egret Lane
GPS: N40° 29.878', W105° 0.694'

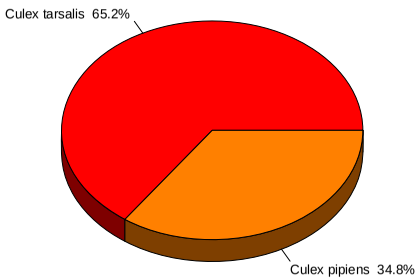
Total number of trap/nights set: 14
Total number of mosquitoes collected: 46
Average mosquitoes per trap/night: 3



Species collected:
Culex tarsalis
Culex pipiens

Species abundance:

Species	Number	Percent of Total
Aedes vexans	0	0.0%
Other *Aedes/Ochlerotatus*	0	0.0%
Culex tarsalis	30	65.2%
Culex pipiens	16	34.8%
Culiseta inornata	0	0.0%



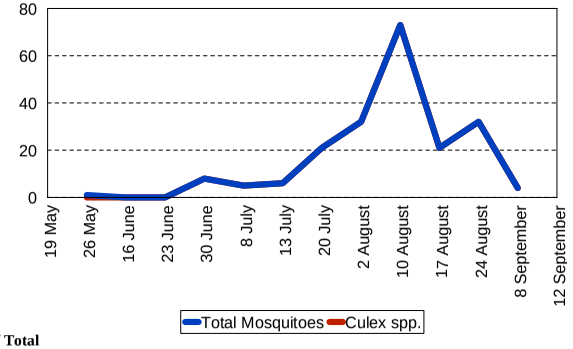
West Nile Virus Testing:
One mosquito sample pool obtained from this trap site tested positive for WNV on 16 August 2006.

[see also results for the light trap at this location FC-53]

FC-63gr: Red Fox Meadows FCNA

Season: 2006
Trap Type: Gravid
Location: Fort Collins, Prospect and Heatheridge
GPS: N40° 33.925', W105° 6.312'

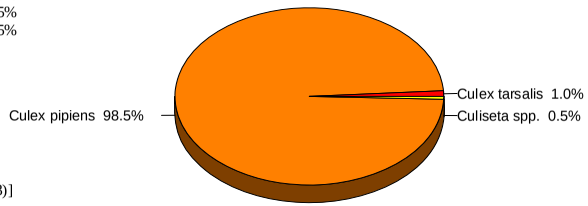
Total number of trap/nights set: 12
Total number of mosquitoes collected: 203
Average mosquitoes per trap/night: 17



Species collected:
Culex tarsalis
Culex pipiens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
Aedes vexans	0	0.0%
Other *Aedes/Ochlerotatus*	0	0.0%
Culex tarsalis	2	1.0%
Culex pipiens	200	98.5%
Culiseta inornata	1	0.5%



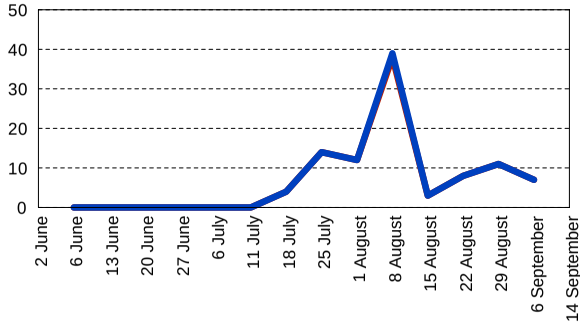
West Nile Virus Testing:
Two mosquito sample pools obtained from this trap site tested positive for WNV on 10 August and 17 August 2006.

[see also results for the Light trap at this location (FC-63)]

FC-66gr: Prospect Ponds FCNA @ Drake Reclamation

Season: 2006
Trap Type: Gravid
Location: Fort Collins,
Prospect and Sharp Point
GPS: N40° 33.525', W105° 1.312'

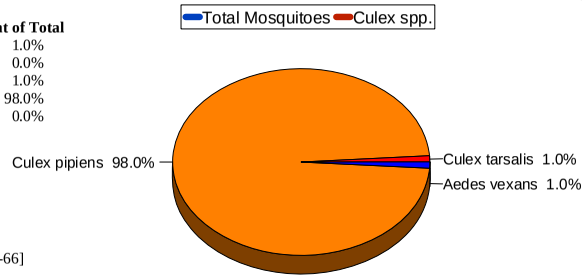
Total number of trap/nights set: 14
Total number of mosquitoes collected: 98
Average mosquitoes per trap/night: 7



Species collected:
Aedes vexans
Culex tarsalis
Culex pipiens

Species abundance:

Species	Number	Percent of Total
Aedes vexans	1	1.0%
Other *Aedes/Ochlerotatus*	0	0.0%
Culex tarsalis	1	1.0%
Other *Culex*	96	98.0%
Culiseta	0	0.0%



West Nile Virus Testing:
No mosquito sample pools
from this trap site
tested positive for WNV.

[see also results for the light trap at this location FC-66]