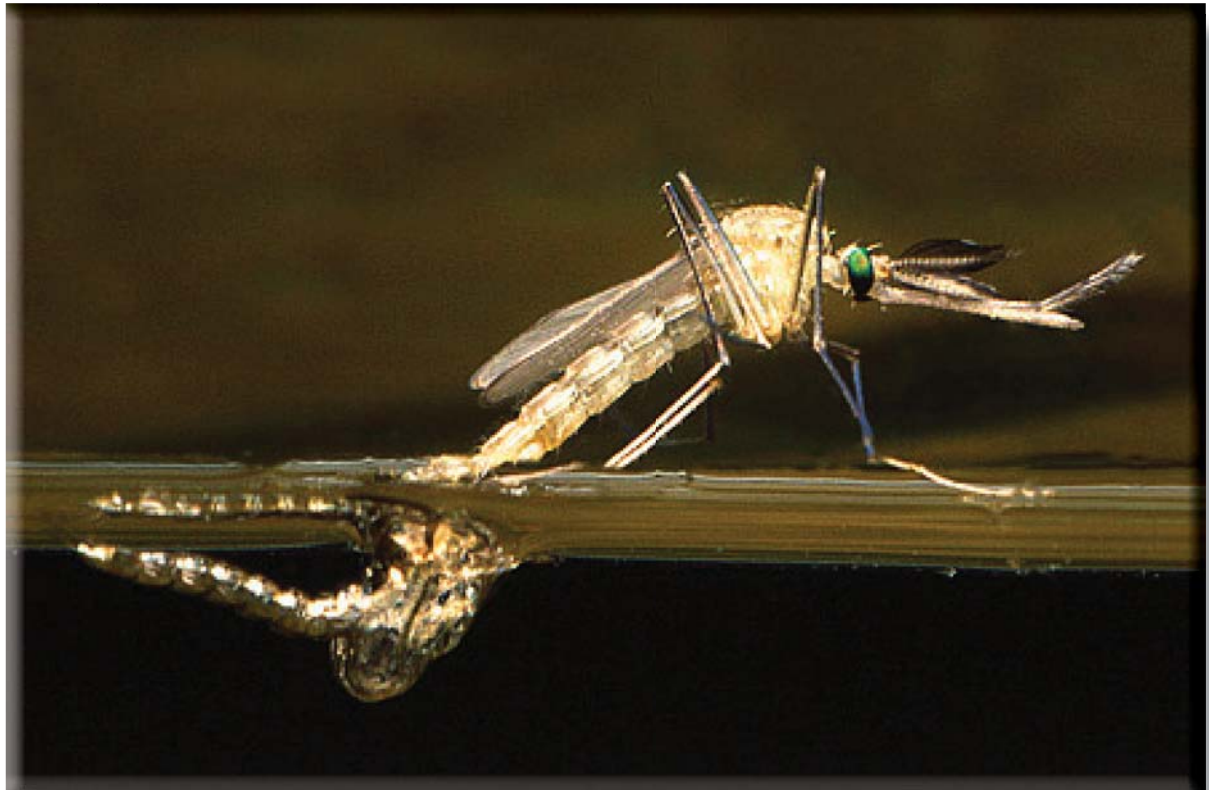


2007 Annual Report

Boulder County Cooperative Mosquito Control Program

City of Longmont



October 2007

Colorado Mosquito Control, Inc.

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On The Cover:

A *Culex pipiens* female emerges from pupal case at water surface. This disease-vector mosquito will soon mature and take a blood meal and be capable of transmitting West Nile Virus and other mosquito-borne encephalitides primarily to birds. Birds serve as the primary reservoir for the virus. *Culex tarsalis* will bite birds and humans thus vectoring the virus to the human dead-end host. West Nile Virus is here to stay. Hundreds of human cases have been reported in Colorado so far this year.

Colorado Mosquito Control, Inc.

**BOULDER COUNTY COOPERATIVE
MOSQUITO CONTROL PROGRAM
CITY OF LONGMONT
ANNUAL REPORT 2007**

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***THE BOULDER COUNTY COOPERATIVE
MOSQUITO CONTROL PROGRAM
MISSION STATEMENT***

The need to protect residents and visitors from the health risks, severe annoyance, and discomfort associated with biting mosquitoes is a chronic annual problem. The primary objective of the Boulder County Cooperative Mosquito Control Program is to suppress the development of larval mosquitoes in wetland and other sites, to monitor and reduce numbers of adult mosquitoes thereby reducing overall mosquito populations to an acceptable low-biting “annoyance level”, while reducing the threat of mosquito-borne disease transmission, all at the least possible cost, and with the least possible impact on human health and the natural environment.

CMC OBJECTIVES

Colorado Mosquito Control, Inc. as the contractor for the Boulder County Cooperative Mosquito Control Program will use proven scientific integrated pest management (IPM) methods of survey, inspection, diagnosis, biological/biochemical controls, natural enemies and limited low-toxicity pesticide applications to professionally accomplish the objectives of the Program. All of the methods and materials used 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.

Colorado Mosquito Control, Inc.

Colorado Mosquito Control, Inc. (CMC) is a large-scale contractor specializing in complete integrated mosquito control services. CMC utilizes an aggressive preemptive Integrated Pest Management (IPM) approach to controlling mosquito populations within contracted areas. CMC was established in 1986, is the largest private company specializing in mosquito control in Colorado, and is the only company in Colorado offering complete IPM mosquito control services.

CMC currently has programs across the state of Colorado including: Homeowners Associations, Incorporated Cities and Towns, Mosquito Control Districts, Counties, Indian Reservations, and others. Geographically, CMC reaches from the Ute Mountain

***Integrated Pest
Management:***

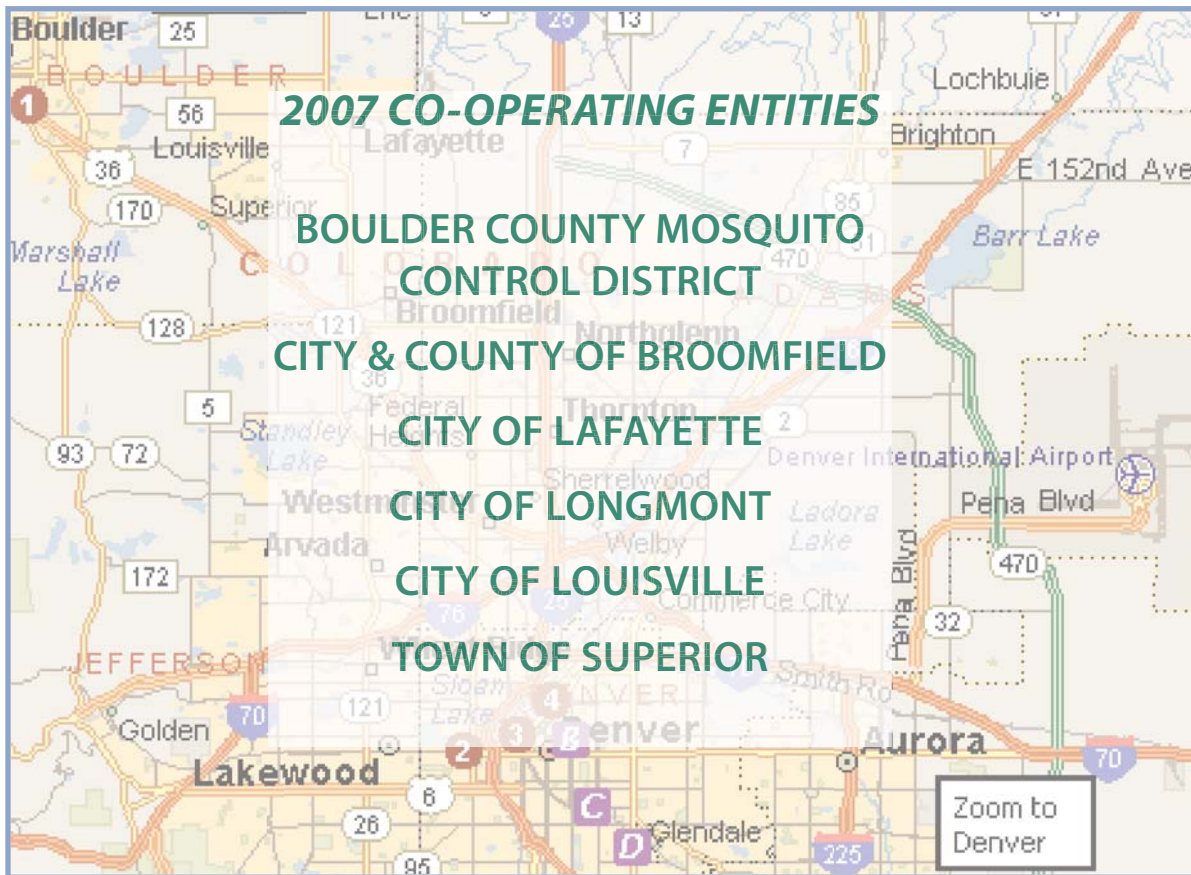
“A process consisting of the balanced use of cultural, biological, and least-toxic chemical procedures that are environmentally compatible and economically feasible to reduce pest and vector populations to a tolerable level”

Ute Reservation in the southwest corner of the state to Fort Morgan in northeastern Colorado. CMC has programs in several mountain areas including the Gunnison Valley, the I-70 corridor, and parts of the upper Colorado River valley.

Cooperative Program

Five counties and many communities along the Colorado Front Range again participated in an extensive cooperative mosquito control effort during 2007. During the 2005 and 2007 seasons, efficacy of the established program has been improved with the inclusion of areas adjacent to or surrounded by previously participating areas. CMC has continued to provide top quality mosquito control programs in several front-range communities for over 15 years. In addition, CMC has rapidly expanded to provide service to other municipalities as new mosquito control programs were initiated. CMC will maintain its commitment to provide top quality service, in an effort to minimize the threat of West Nile Virus to citizens and to reduce mosquito annoyance.

Along the Colorado Front Range, currently participating counties include: Adams, Boulder, Broomfield, and Larimer. Individual cities managed by the Colorado Mosquito Control Denver Metro office include; Brighton, Columbine Valley (in Arapahoe County), Commerce City, Federal Heights, Lakewood, Northglenn, Thornton, and Westminster. Over 20 municipalities and Districts in Weld County also participate as well as several other areas within the City & County of Denver.

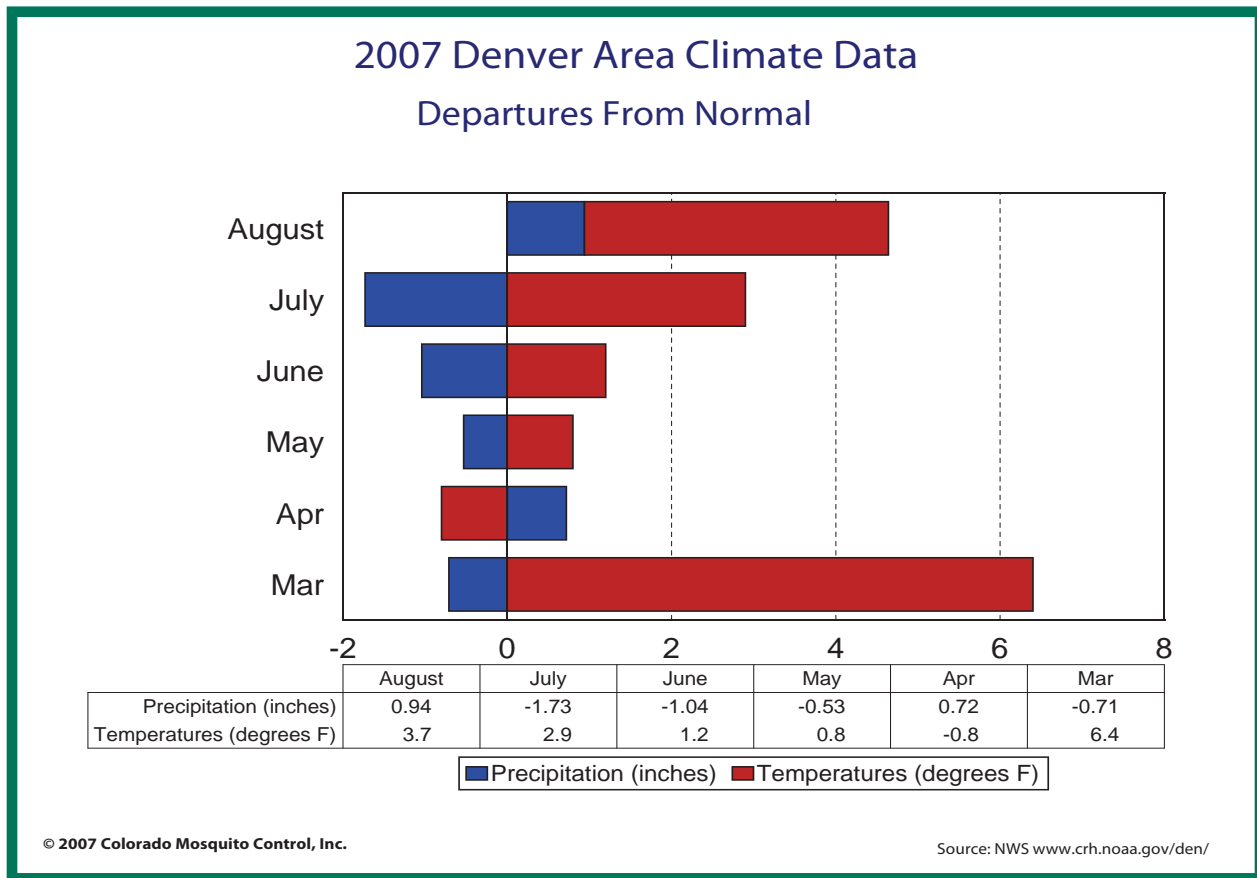


2007 SEASON PERSPECTIVE

With over 21 years of service under our belts, we have come to expect the unexpected. We know that each Colorado summer will present a unique set of temperature, precipitation, irrigation, and human interactions that combine to create new and different challenges in both mosquito control and mosquito-borne disease proliferation and control. 2007 again showed these assumptions to be correct.

In monthly reports earlier this season, the 2007 mosquito season was described as the “Perfect Storm 2” in reference to the 2003 “Perfect Storm” season in which all of the environmental variables that dictate mosquito populations and mosquito-borne disease came together to produce the worst epidemic of arthropod-borne human disease in Colorado history. Early in the 2007 season, environmental and climatic conditions actually looked worse than in 2003. Early season rains and high temperatures produced *Culex tarsalis* populations that in most areas of Colorado were well above 2003 levels. Numerous graphs and charts follow that will illustrate these numbers.

Fortunately, with lessons learned over the past four years, CMC, the County Health Departments and CDPHE all recognized these patterns and were able to sound the alarm and make recommendations for emergency actions much earlier than in past years. With the understanding and cooperation of many municipalities, emergency preemptive spray applications were able to be performed in a timely and much more effective



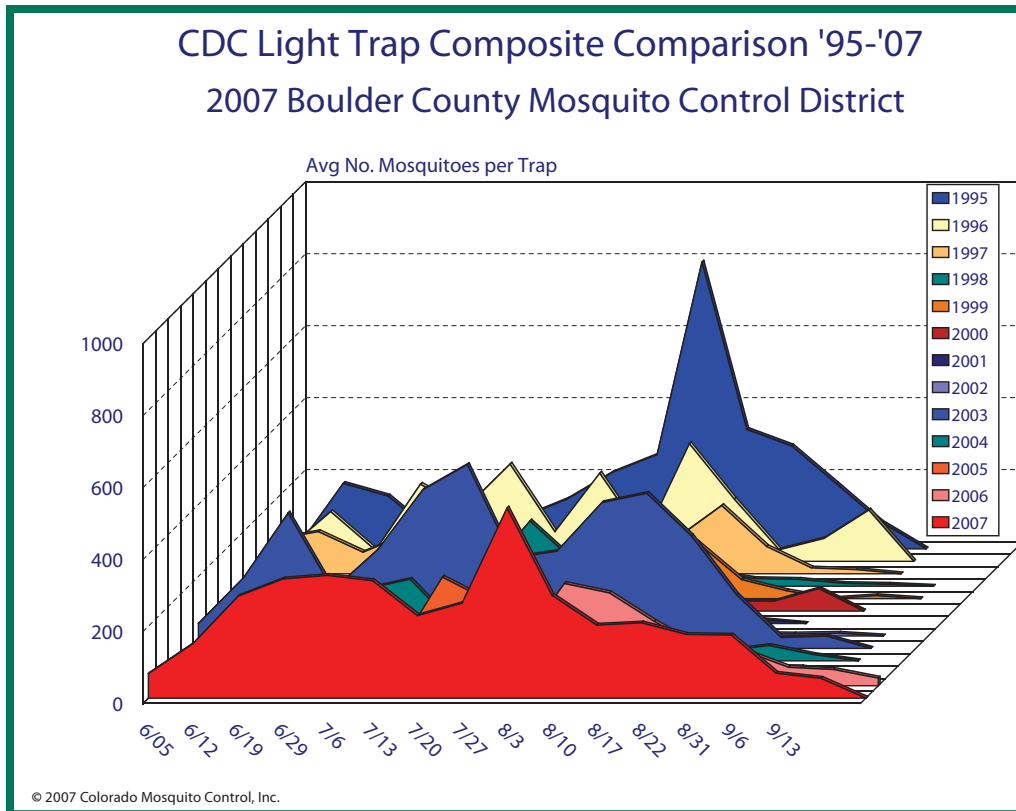
manner than in past years. Thus even though conditions were worse than 2003 in many areas in July and early August, these preemptive emergency adult mosquito control applications were able to significantly reduced the number of Culex mosquitoes and the associated human West Nile Viral disease.

Again, 2007 can be described as a “Tale of Two Seasons”, with striking highs and dramatic lows in both temperatures and precipitation, all having profound effects on mosquito populations. (See Chart 2007 Denver Area Climate Data) Temperatures were very hot early in the season (March was a huge 6.4 degrees above normal) and still above normal

The vast majority of the mosquitoes (*Aedes/Ochleratattus*) with which we must normally contend are associated with newly applied floodwater via rain or irrigation or older standing stagnant water (*Culex*). Thus mosquito population trends along the northern Front Range are almost always dependent on either heavy rains (over 0.5 in.) or the agricultural flooding of fields for irrigation. In 2007, the northern Front Range did not receive heavy rains in March, May, June or July thus keeping floodwater mosquito species well below normal in most areas. The only exceptions were those areas that saw heavy flood irrigation or over-filling of irrigation water retention basins. Most of the significant mosquito populations early in the season were *Culex* species since the only prominent source of water for breeding was existing standing more stagnant water in marshes or other wetlands. The early season prominence of *Culex* mosquitoes (much like 2003) heightened the threat and likelihood of West Nile Virus human disease transmission later in season, which turned out to be an accurate prediction.

Unfortunately, to add insult to injury August saw a return to more normal thunderstorm related rains with many rainfalls over

0.5 inch triggering large hatches of floodwater *Aedes* and later a subsequent resurgence of *Culex* mosquitoes. This resurgence of *Culex* mosquitoes occurred well after the first round of emergency spray applications had reduced the *Culex* populations and the threat of disease transmission. This secondary resurgence of *Culex* forced a new round of alarms



late in the season. (June +1.2, July +2.9 and August +3.7) According to NOAA, the season was also very dry with March, May, June and July all averaging more that 1.0 inches below normal rainfall. April and August saw significant mosquito producing rains and came in slightly above the norm.

0.5 inch triggering large hatches of floodwater *Aedes* and later a subsequent resurgence of *Culex* mosquitoes. This resurgence of *Culex* mosquitoes occurred well after the first round of emergency spray applications had reduced the *Culex* populations and the threat of disease transmission. This secondary resurgence of *Culex* forced a new round of alarms

and emergency spray application recommendations. Larimer County was hardest hit by these rains and an extensive second round of emergency spray applications was recommended by the Larimer County Health department and was completed by CMC in Fort Collins, Loveland and surrounding areas in Larimer County in mid to late August. The following section on West Nile will cover this topic more in-depth.

The season quickly came to a close during the first weeks of September with the incursion of several strong cold fronts which dropped day time temperatures into the 60's and night time temperatures into the 40's.

2007 Field Activities

Field activities began in late March for the 2007 season. The earliest activity of the season was taking GIS maps which were updated and revised over the fall and winter and site ground-checking them. In addition, new site identification and mapping were the priority in areas that had not previously been included in larval control operations. Mapping larval sites is an ongoing process, and in every program citizen reports of new larval sites result in many new sites being added to the existing larval inspection routes.

Hiring of seasonal technicians also began in March, and continued into late May. As the CMC service area continues to grow, hiring an adequate number of top quality field technicians has become a challenge. For the Brighton office, approximately 20 technicians were hired with nearly 100 being interviewed.

CMC's Annual Field Technician Classroom Training Day took place on May 14th with over 75 new and returning field technicians in attendance. Field training by CMC management and veteran employees lasted throughout May, with a few late hires being trained during early June. By early June, CMC was fully staffed and had daytime and evening shift crews trained and in the field. During the mid June to mid August time period, field mosquito control operations were in full swing. The final day for larval inspections and control was Friday, September 14th.

Mosquito trapping was planned through September 21st, however windy, cold and wet weather conditions effectively eliminated much of the final week of mosquito trapping and associated adult spraying operations. Although small populations of adult mosquitoes remained through the end of September, mosquito annoyance calls declined to zero during the last weeks of the month.

WEST NILE VIRUS 2007

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 2002-06

Cases of human WNV disease have been seen throughout a large part of the country with many states including Colorado, rebounding to near epidemic outbreaks of human disease.

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).

In Colorado in 2004 and 2005 WNV activity was spread throughout the state with no particular clustering in any one region. In 2006 with early hot and dry conditions *Culex* mosquitoes had an early surge which increased early season viral amplification which showed up in August and September as hundreds of positive mosquito pools and then over 269 human WNV cases along the northern Front Range and in hot spot areas across the state. 7 deaths occurred in 2006 in Colorado.

WNV Activity 2007

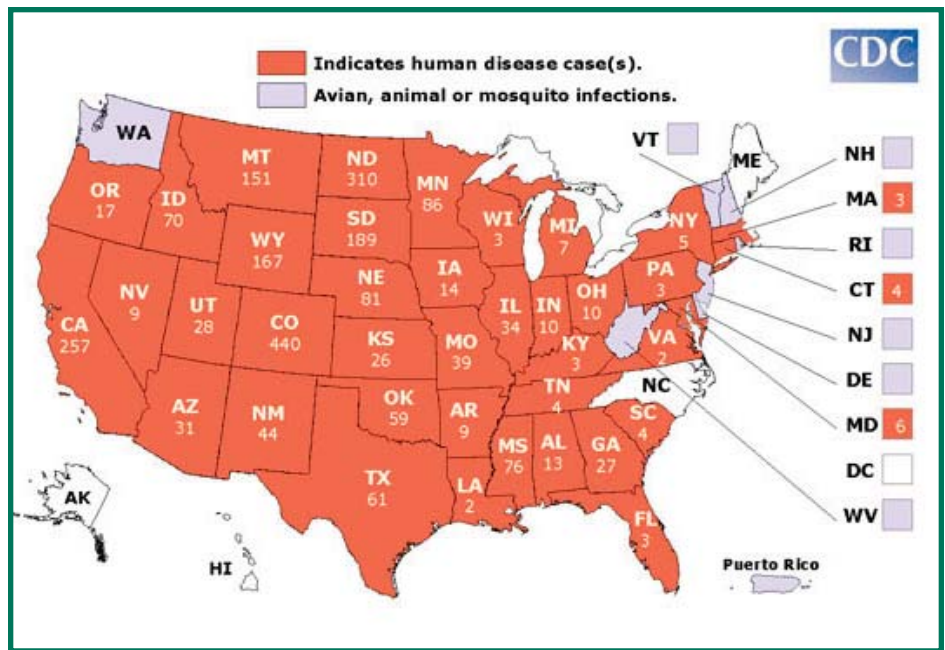
As described above, early season weather conditions were perfect for the rapid development and

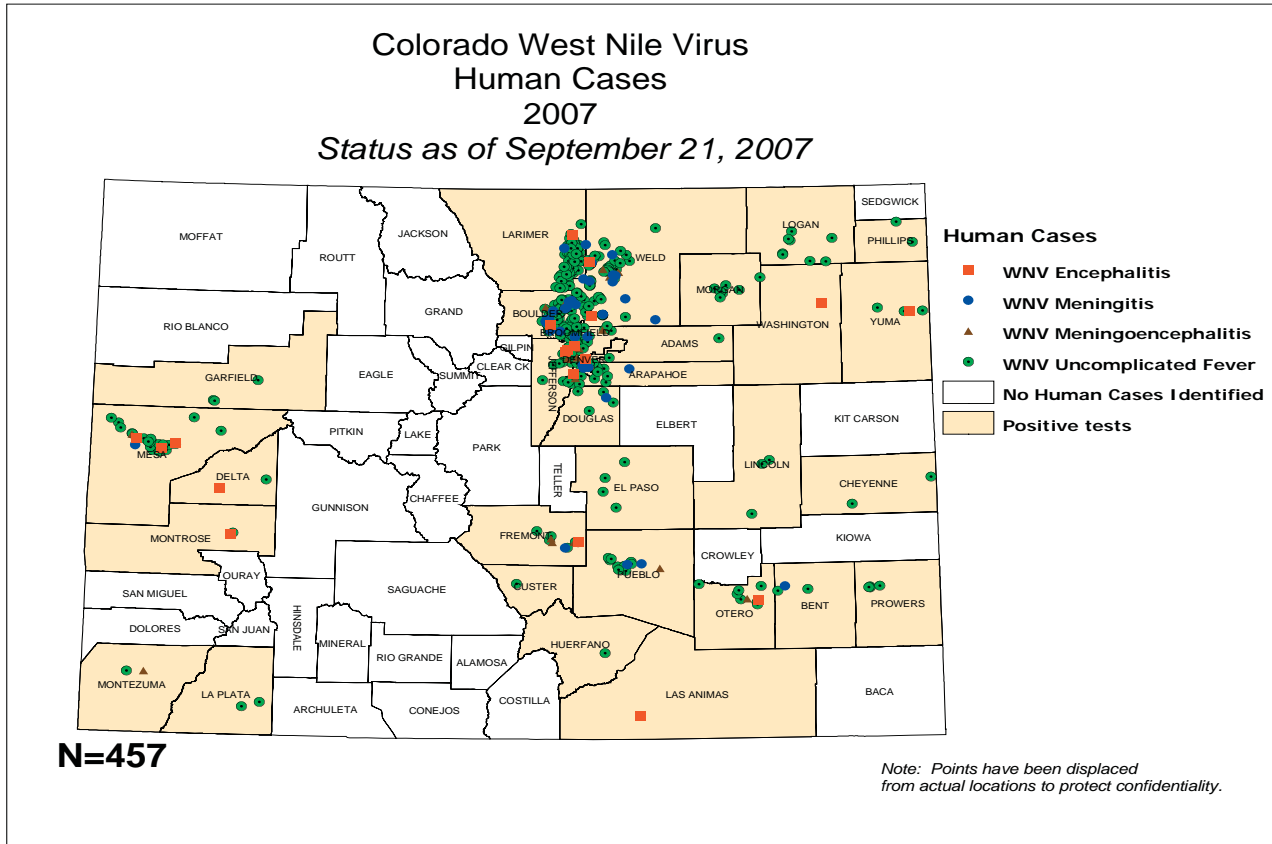
sustainability of large *Culex tarsalis* and pipiens populations. Also early positive mosquito pool tests indicated trouble from the start. The first positive mosquito pools (3) were from Larimer County on June 19th. Weld County was next with positive pools showing up on July 6th. Boulder County saw its first pool on July 9th. Adams, JeffCo and Denver all showed positive pools within the next week. West Nile was here in force and was very wide-spread very, very early.

WNV Emergency Spray Applications 2007

In mid July, nearly a month earlier than 2006 and nearly six weeks earlier than in 2003, decisions were made by several counties and municipalities to implement emergency West Nile Virus control via large-scale ground-based (truck) adult mosquito spraying based solely on the high Infection Rates and more importantly high Vector Indices being seen in *Culex* populations. In past years (2003 & 2006) human cases of WNV triggered spraying, which we have learned is much too late to have much effective in preventing subsequent human disease.

These difficult decisions were made via cooperative consultations between the municipalities, the county health departments, the Centers for Disease Control and CMC. In many areas the *Culex* mosquito numbers





justified immediate emergency spray applications including the Cities of Fort Collins, Loveland, Greeley, Longmont, and those areas surrounding Longmont in Boulder and Weld counties. In all areas significant reductions in *Culex tarsalis* vector populations were achieved

With the rains in August and the rebound of *Culex* populations particularly north in Larimer County, a second round of emergency spraying took place in mid-August and was completed by the third week of the month. A few Adams county municipalities saw a surge in *Culex* positive pools in mid-August precipitating emergency spray applications in Northglenn and Thornton during the 3rd week of the month.

Although over 440 human cases and 5 deaths have been reported to date (September 21, 2007) in Colorado, these emergency spray applications undoubtedly precluded significant human disease, suffering and death.

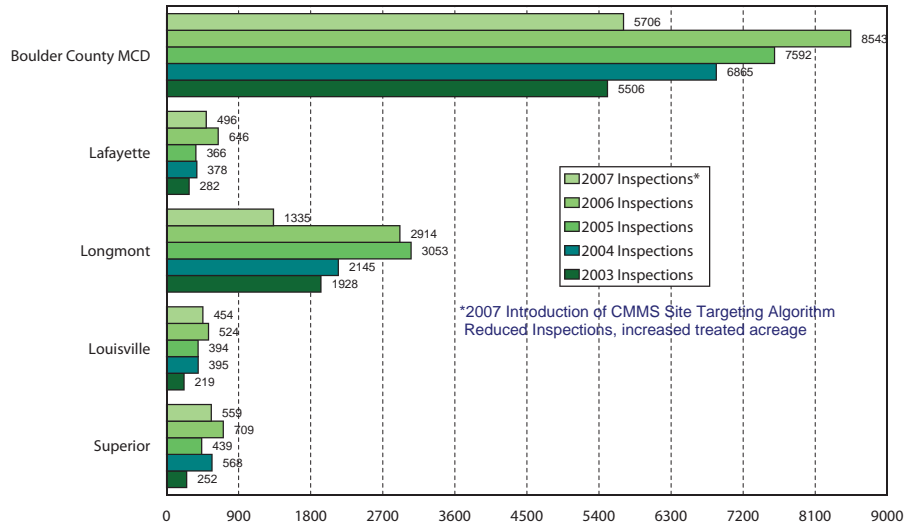
Please see the accompanying table for a summary of human WNV disease in 2007.

County of Residence	Clinical diagnosis			Total cases	Total deaths
	Fever	Meningitis	Encephalitis		
Adams	15	1	3	19	
Arapahoe	11	1	1	13	.
Bent	2	2	.	4	.
Boulder	74	12	5	91	2
Broomfield	8	1	.	9	.
Cheyenne	2	.	.	2	.
Crowley	.	1	.	1	.
Custer	1	.	.	1	.
Delta	2	.	2	4	.
Denver	10	3	5	18	2
Douglas	4	1	.	5	.
El Paso	4	.	.	4	.
Fremont	7	1	4	12	.
Garfield	3	.	.	3	.
Huerfano	1	.	.	1	.
Jefferson	25	.	3	28	.
La Plata	3	.	.	3	.
Larimer	75	2	1	78	.
Las Animas	.	.	1	1	.
Lincoln	3	.	.	3	.
Logan	8	.	.	8	.
Mesa	27	1	5	33	1
Montezuma	1	.	1	2	.
Montrose	1	.	1	2	.
Morgan	7	.	1	8	.
Otero	7	.	2	9	.
Phillips	2	.	.	2	.
Prowers	4	.	.	4	.
Pueblo	11	2	1	14	.
Washington	1	.	1	2	.
Weld	72	12	5	89	.
Yuma	3	.	1	4	.
COLORADO	394	40	43	477	5

CDPHE Data 9/28/07

Larval Site Inspections by Service Area

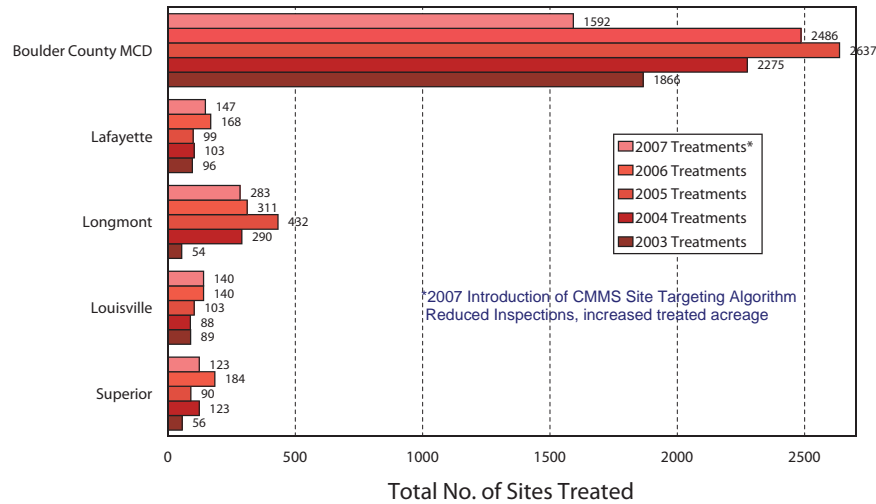
'03 vs. '07 Boulder County Mosquito Control Programs



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Larval Site Treatments by Service Area

'03 vs. '07 Boulder County Mosquito Control Programs



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LARVAL MOSQUITO CONTROL

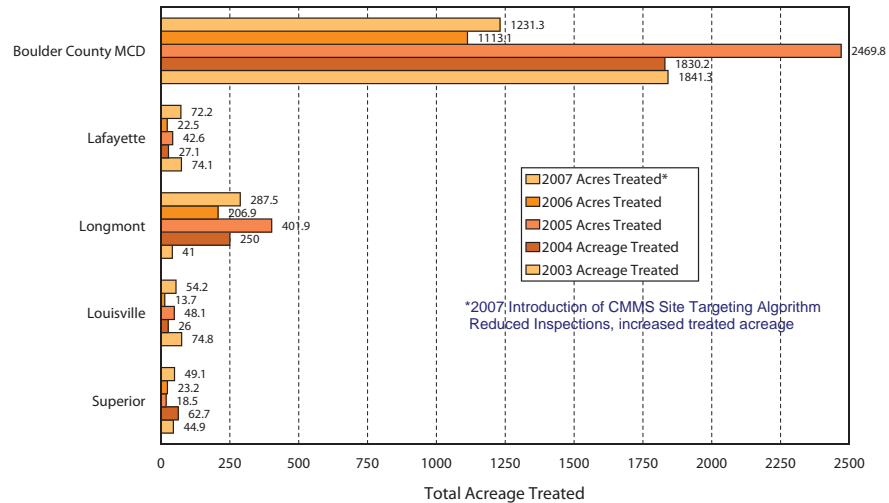
Practical experience and research have shown that the most effective way to control mosquito populations is through an aggressive Integrated Pest Management (IPM) approach. This approach aims at using a variety of concepts, tools, and products to reduce a pest population to tolerable levels. Translating 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.

Larval mosquito control can be achieved in several ways including biological, biochemical, chemical, and mechanical means. Although there are a variety of methods of reducing larval populations some may have greater consequence than benefit. Mechanical or habitat modification is a technique which may be used, but the area to be modified and the extent to which the work will affect the surrounding area must be carefully reviewed. Permanent ecological damage may occur if extensive habitat change has taken place. True biological controls may, too, have costs which outweigh the benefits or competency of their control capacity. Predatory fish serve as a good example of this.

The mosquito fish (*Gambusia affinis*), an introduced species, while an effective predator on mosquito larvae, may have much larger dangers to native fish of Colorado waters. A very aggressive eater and rapid reproducer, *Gambusia* often out-compete

Larval Acreage Treated by Service Area
'03-'07 Boulder County Mosquito Control Programs



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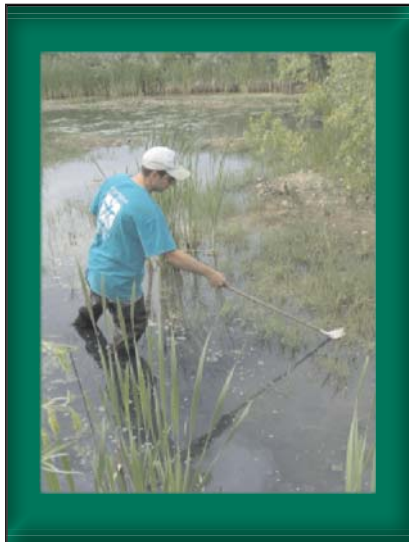
*2007: Introduction of CMMS Site Targeting Algorithm Reduced Inspections, increased treated acreage

their native counterparts. Due to these factors the Colorado Division of Wildlife (CDOW) has placed restrictions on the stocking and use of the fish. However, this year CMC obtained, stocked and distributed a supply of fathead minnows (*Pimephales promelas*), a native Colorado species. Fish were made available to residents for placement in irrigation or ornamental ponds. In general however, predatory fish and other biological controls such as bird and bats do not provide sufficient control of mosquito populations to be used as the sole mechanism. Other methods must be used to gain adequate larval mosquito population reductions.

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

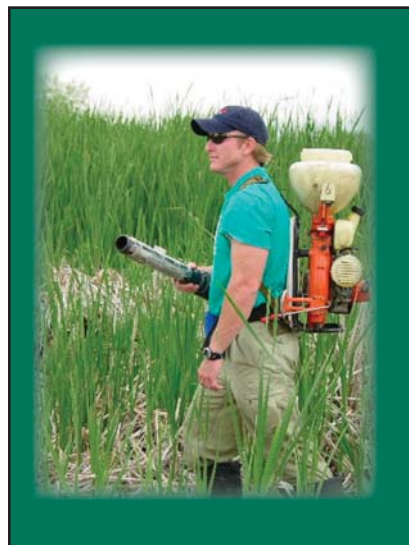
the majority of the habitats throughout the service area.

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. Abate, the one chemical larval control product CMC uses, serves as an effective product, but label restrictions limit its use in many areas. CMC limits the use of chemical larvicides to areas with little biodiversity, such as road side ditches, or areas which chronically produce large amounts of mosquitoes and use them only 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 animals 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 began the first week of 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 but cool weather reduced the need for extensive larval control operations.

CMC constantly strives to improve its operations. Most recently CMC has implemented several high tech solutions to what historically has been a particularly low tech industry. CMC's "CMMS" (Computerized Mosquito Management System) utilizes historical data to analyze and identify areas and sites of particular importance. Additionally, a sample of larvae from all sites found to be breeding is collected and brought back to the lab for identification purposes. This allows for a specific knowledge of each site especially in the event of a disease outbreak where a particular species has been found to be the vector. Targeted inspections then allow for resources to be allocated efficiently.



CMC SURVEILLANCE LABORATORY

Data on mosquito abundance and species identity is critical in the operation of a successful mosquito control program. Over the past few years identifying, packaging and sending Culex mosquito pool samples off to the CDPHE Labs for virus testing has also become critically important in the battle against West Nile and other mosquito-borne disease. The Colorado Mosquito Control Surveillance Laboratory managed by Dr.

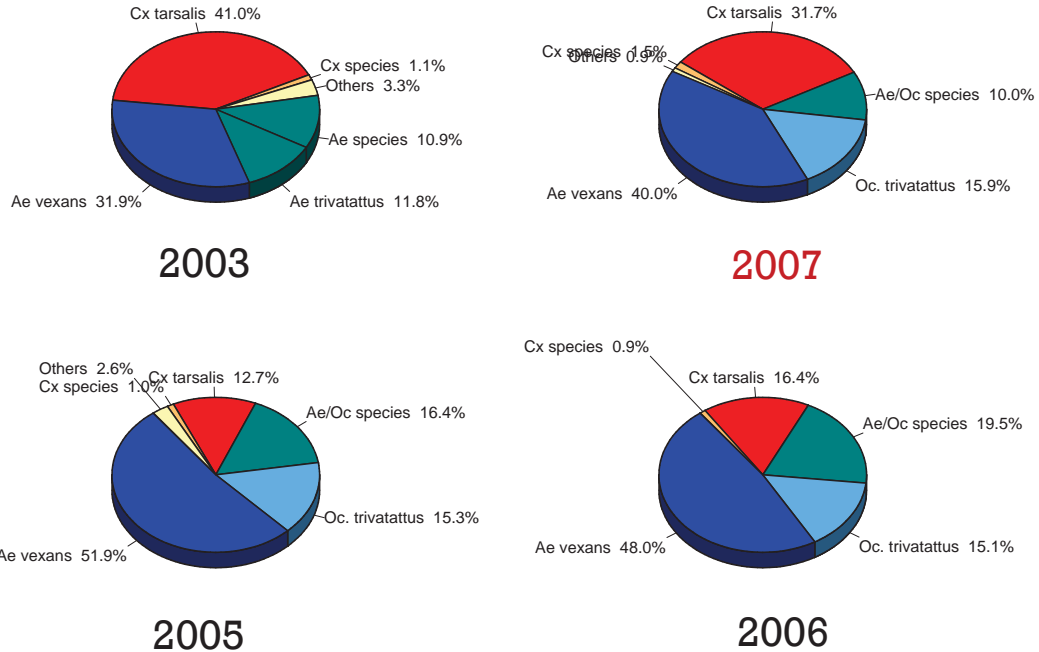
Michael "Doc" Weissmann has become the largest single source of adult and larval mosquito surveillance data in the state of Colorado.

CMC employs two kinds of traps to monitor mosquito populations. The CDC light trap uses carbon-dioxide from dry ice as bait to attract female mosquitoes seeking a blood meal from a breathing animal. Once attracted by the CO₂, the mosquitoes are lured by a small light to a fan that pulls them into a net for collection. The Gravid Trap uses a tub of highly-organic water as bait to attract female mosquitoes that are looking for a place to lay their eggs. A fan placed close to the water surface forces mosquitoes that come to the water into a collection net. Once back in the laboratory, the contents of the trap nets are counted and identified by technicians trained to recognize the Colorado mosquito species.



In 2007, Colorado Mosquito Control monitored a statewide network with more than 3,640 trap nights set, collecting 632,692 adult mosquitoes that were counted and identified to species by the CMC Surveillance Laboratory. While individual traps provide only limited information, trap data is interpreted in the context of historical records for the same trap site, going back in time more than a decade. Individual traps are also compared to other

'03-'07 CDC Trap Composite Species Analysis Boulder County Mosquito Control Programs



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traps from around the region that were set on the same night and therefore exposed to similar weather conditions. Technicians working in the Surveillance Laboratory at Colorado Mosquito Control, Inc. are trained to provide accurate species-level identification of mosquito specimens, for both adults and larvae. More than 50 mosquito species are believed to occur in Colorado, and 29 of those were identified from samples processed during the 2007 season from across the state.

Additionally, the CMC Surveillance Laboratory conducts an intensive larval identification program with over 8,000 larval mosquito samples collected by I&L technicians prior to larviciding being identified to species. This information is now invaluable in targeting mosquito control efforts as we gain a greater understanding of the habitat types preferred by Colorado mosquito species and the seasonality of these habitats as sites for mosquito development.

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

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

-
- Determining larval and adult mosquito species which helps illustrate the threat of mosquito-borne disease amplification and transmission.
 - Determining where adult control efforts were necessary. While mosquito eradication is impossible, significant population reduction is achievable. In places where larval control was insufficient, especially in neighborhoods where adult mosquitoes migrated in from larval sources outside of the control area, it may be necessary to use adulticide methods such as ULV truck fogging or barrier sprays of nearby harborage areas. Trap counts that were in excess of an acceptable threshold for the area would trigger adult control measures.
 - Surveillance for Mosquito-borne Disease. Historically, CMC efforts were targeted primarily at controlling mosquito nuisance problems with limited disease surveillance. However, since the arrival of the West Nile Virus in Colorado in August of 2002, the paradigm has shifted toward disease prevention and control. Accurate species identification of the mosquitoes in the traps is important when monitoring species population trends. It also is necessary for evaluating whether a population spike represents an actual increase in disease transmission potential or only an increased nuisance level. Additionally, a majority of the *Culex* specimens collected in the CMC traps during the 2007 season were sent to the CO State Health Department laboratory or one of the regional county laboratories to be tested for West Nile Virus and other mosquito-borne diseases. The infection rates of West Nile Virus in *Culex* mosquitoes in 2007 was comparable to the unprecedented high rates in 2003 season, the only real difference between 2007 and 2003 seems to be in the actual overall number of *Culex* mosquitoes at the end of the season, not in the percentage of mosquitoes that were infected with the virus.

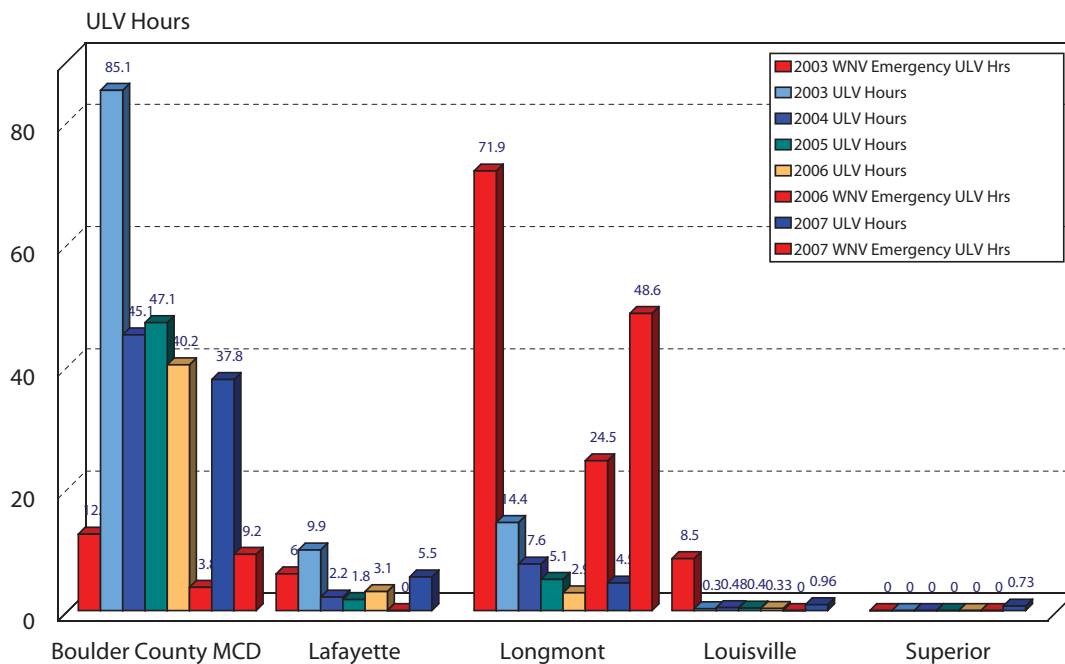
2007 has shown that it is critically important to continue mosquito surveillance and control operations in future years. The threat of West Nile Virus and other mosquito-borne diseases is here and is not going away.

2007 ADULT CONTROL

Controlling the adult mosquito is an essential component of a fully Integrated Mosquito Management Program. Although the primary focus of our programs is on larval control first and foremost, adult control methods are used when data shows that adult populations of mosquitoes are present in large numbers and/or there is an imminent threat of mosquito-borne disease transmission. Adult mosquitoes can come from unknown unidentified sites or may migrate in from uncontrolled areas. Adult mosquito surveillance efforts discussed above can help to pinpoint these unidentified larval sites and target both larval and adult control efforts. These large adult populations bring with them discomfort, concern, and the potential for disease transmission.

The Boulder County Cooperative Mosquito Control Program uses all available data from CDC light traps, gravid traps, Mosquito Hotline annoyance calls, and field technician reports to focus adult mosquito control efforts on specific, very limited “targeted” areas. In parts of the community where 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

ULV Adulticide Comparison By Service Area
2003-2007 Boulder County Mosquito Control Programs



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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.

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 and continued its use in 2007. 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. Results this year have again proven that this is the right choice for the adulticide portion of the Integrated Mosquito Management Program.

Colorado Mosquito Control again offered short term residual backpack barrier treatments for special city and town events such as concerts in the park and festivals, as well as to areas such as walking and bike paths showing above average mosquito populations. If the adult mosquito population is moderate, although more labor intensive, it is often more effective to spray a localized harborage area to provide control during an event or for outdoor activities. Barrier treatments are typically effective for a period of 2 to 4 days, and present a very low toxicity profile to humans and domestic animals. If the mosquito population is high or the area is too large, barrier treatments are complimented with ULV adulticiding previous to the event.

Our adult mosquito spray "notification and shutoff" program was again in place and updated throughout 2007. This service allows residents to request a notification of when adult mosquito control treatments will take place in their area, "shutting off" the sprayer in the vicinity of their address, or both. This service, along with daily schedule updates on our website; www.comosquitocontrol.com, provides residents with up to date information on when and where adult mosquito spraying will take place.

As we look towards the 2008 season, we will continue to evaluate treatment areas, and any new control products coming to the market, and as always listen to the goals and needs of our customers so that we will again have an effective program with the least amount of impact to the environment.

ENVIRONMENTAL RESPONSIBILITY

Colorado Mosquito Control puts forth incessant effort to minimize environmental impacts while maximizing efficiency and efficacy of our programs. Using the framework of Integrated Pest Management (IPM) and through the implementation of new and existing technologies, we have been able to develop the most sustainable mosquito control programs in the country while maintaining successful control of mosquito populations with minimal impact to human health and the environment.

INTEGRATED PEST MANAGEMENT (IPM)
INTEGRATED MOSQUITO MANAGEMENT (IMM)

CMC has always strived to create the most comprehensive mosquito control programs using the principles of Integrated Pest Management (IPM). IPM allows for management of pests only after careful analysis of the pest at hand and thoughtful selection of methods that will have the greatest efficacy, and the least environmental, economic, and health impacts has been performed. With this, CMC uses only products and application methods that target mosquitoes with minimal risk to non-target organisms or human health. For our Integrated Mosquito Management (IMM) programs, the staple product is *Bacillus thuringiensis israeliensis* (Bti). Bti is the most favorable mosquito control product on the market today and has found favor with both traditional mosquito control programs as well as with environmental advocates for its efficacy in controlling mosquitoes while maintaining target specificity and lack of adverse health effects. Over 90% of CMC's operational applications continue to be with Bti.

However, a true IPM or IMM program cannot rely on the use of a single control method and does not exist without the use of all available tools to control mosquitoes at specific locations or life stages. CMC utilizes a number of techniques to control mosquitoes site specifically through the additional use of native fish as biological controls, biological/bio-rational products such as Bti and *Bacillus sphaericus* (Bs), target specific Insect Growth Regulators (IGR) and mineral oil. Additionally, adult mosquito control continues to be a very small, but integral part of a true IMM program. While adult control is at times necessary in any mosquito control program, CMC recognizes the inherent risks of any pesticide application and through implementation of our Comprehensive Mosquito Management System (CMMS) database, extensive adult and larval surveillance, and input from field personnel we have been able to reduce adult applications throughout our program areas to target those areas only truly necessary. Even through 2007 was a high mosquito population year, average adulticide applications have been reduced in most areas (excluding West Nile Virus emergency control applications).

TECHNOLOGY

While the principles of IPM/IMM serve as a framework for control, CMC has always understood the importance of technology and its value in improving efficiency, accuracy, and efficacy of our field surveillance, larval and adult control operations. Years of program development and refinement have resulted in the creation of vast array of geospatial, operational, and historical data.

Comprehensive Mosquito Management System (CMMS)

2007 marks the first full year implementation of our Comprehensive Mosquito Management System (CMMS). CMMS has been built from the ground up over the past 14 years specifically to address the need of comprehensive data collection, storage analysis and reporting. With 300,000+ site inspection records, CMMS allows us to quickly analyze the history of individual sites to assess their potential for larval development based on a variety of factors such as time of year, number of inspections, history of water presence, larval presence and treatments. The end result is a targeted listing of sites for field technicians to inspect that has been specifically chosen based on a complex algorithmic analysis of historical data. Targeting of sites increases our ability to prioritize sites that have the highest potential to produce mosquitoes and limit time spent on low potential sites. This has led to overall fewer site inspections, but greater site acreage treated through the 2007 season. Other environmentally oriented added benefits include reduced labor, fewer miles driven and less gasoline used (i.e. a smaller carbon footprint!). The true measure of our larval control efficiency is calculated by the average acreage treated per site visit. Further, CMMS provides for the quick composition of reports. These reports allow for more rapid data retrieval and analysis as well as faster customer service response.

Geographic Information Systems (GIS)

Geographic Information Systems (GIS) have become an invaluable tool in a variety of industries from business applications, to disaster preparedness to biological and environmental applications. CMC was one of the first mosquito control organizations to understand its usefulness and make a commitment

to and implement GIS application to mosquito control starting in the mid-1990's. CMC maintains a large catalog of geospatial data detailing locations of potential larval breeding sites, associated site information such as habitat type, water source, and landowner information, adult mosquito surveillance data and resident contact information. All GIS work is performed in house by CMC personnel and is never subcontracted which can lead to increased turnaround time, better accuracy and a better understanding of the data.

Digital Interactive Reports

Another new addition to CMC's programs this year has been the introduction of a new interactive program data reporting system. Based on an informational "dashboard", this is a first for the mosquito control industry and allows users to access historical data from number of inspections and treatments to adult surveillance data and adulticide data in an easy to ready graphical format. Interactive reports are updated consistently to contain all current data throughout the season.

FUTURE

There are few new or novel larval or adult control products in development, and no "magic bullet exists, thus continued program evolution along an environmentally oriented path must come from the implementation of new technologies as they emerge to traditional mosquito control activities. CMC is currently exploring the possibility of utilizing "real-time" infrared satellite imagery to better locate and time larval development site inspections in conjunction with our CMMS database targeting system. CMC remains committed to improved environmentally sound mosquito control through the use technology.

2007 PUBLIC RELATIONS AND EDUCATION

Colorado Mosquito Control also places a heavy emphasis on public relations, customer service, and community education. With the introduction and continued media coverage of West Nile Virus, residents have become increasingly more involved with mosquito control operations. In 2007 our staff focused on providing area residents and visitors with information on the program, what they can do to help, and offer solutions to localized problems such as mosquito breeding habitats, localized annoyance and protection from West Nile viral disease.

Customer Service

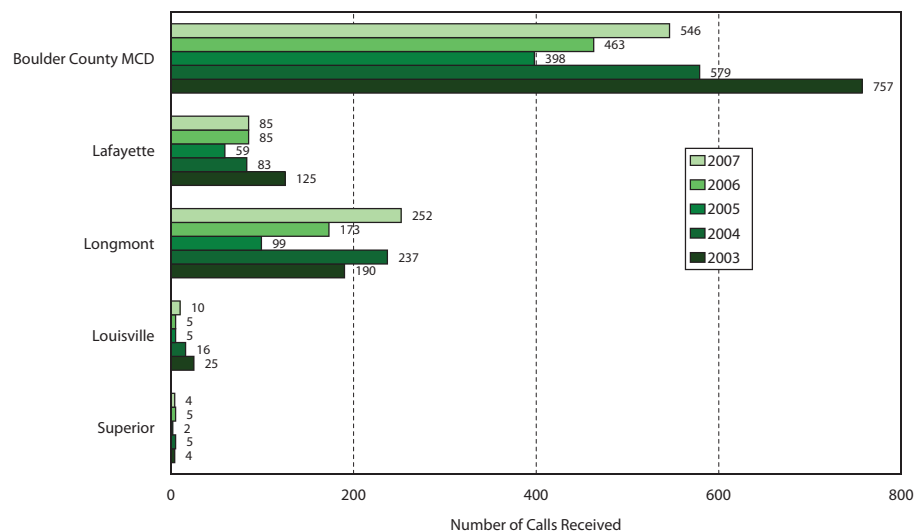
Customer service was again a very high priority. We take pride in training each and every technician so that they have the confidence and information to provide residents with the correct answers to sometimes difficult questions. Each field technician spends part of their day responding to resident concerns 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. Residents are always encouraged to call the Mosquito Hotline to report areas with high mosquito annoyance and potential standing water breeding habitat. These calls compliment CDC light trap data, allow us to pinpoint problem areas, and ultimately provide another valuable resource for our control efforts.

Another important component of CMC's customer service is the notification and shutoff database. Providing residents with this option has proven to be an effective tool in community relations. Our database is updated throughout the year to ensure that the names, phone numbers, and addresses are correct before any spraying is planned within a given community. This service is also often seen as another way that their community officials place an importance on understanding and meeting the different needs of each resident.

Community Outreach and Education

In 2007 CMC further increased our community outreach programs to provide residents and visitors with a better understanding of the value and scope of their mosquito control program. Outreach has proven to have a very positive impact

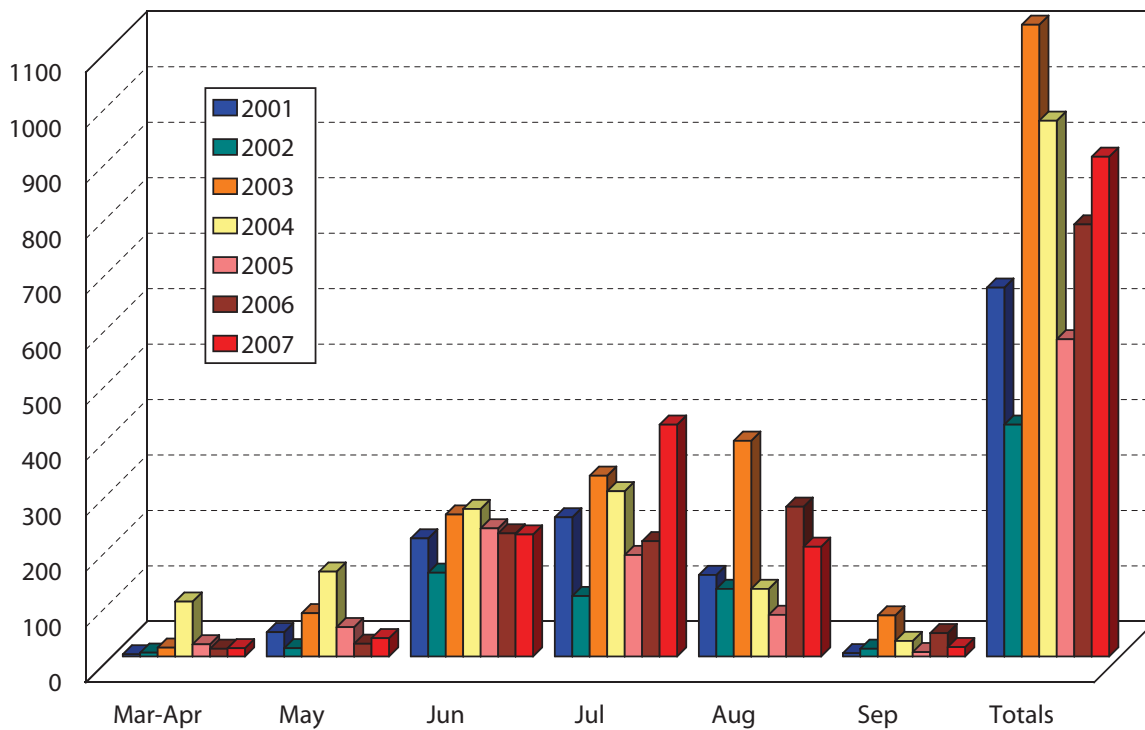
MosquitoLine Calls by Service Area
'03-'07 Boulder County Mosquito Control Programs



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on the community. Throughout the summer outreach events were attended such as Farmer's Markets, city council meetings, concerts, and fairs. The feedback we received was extremely positive not only from residents, but from local government attendees as well. These outreach programs provided information and education on all areas of mosquito control. Individual program services were discussed, but an emphasis was also placed on what individuals can do to eliminate standing water on and around their property, how to reach us via phone and website, and even the proper application of mosquito repellents. However the one of the most important messages conveyed was the importance and minimal environmental impact of larviciding. Many residents often see mosquito control as only a fog truck spraying down the street. Residents learned that over 90% of what their program involves is larval control, and that this provides lower environmental impacts and highly successful mosquito population reduction. Because of the positive feedback of these educational outreach programs, we will continue these throughout the upcoming 2008 mosquito control season.

MosquitoLine Calls Received By Month 2007 Boulder County Mosquito Control Programs



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SUMMARY

The 2007 Boulder County Cooperative Mosquito Control Program remained in the spot-light this year with the strong reemergence of West Nile Virus in Colorado. Fortunately the 2007 "Perfect Storm 2" with the strong resurgence of WNV across the state did not compare to the original 2003 "Perfect Storm" WNV epidemic. Unfortunately we have been correct in our prognostication that in future years Colorado would see increased West Nile Virus activity, particularly human cases and associated deaths. This resurgence in mosquito-borne disease clearly illustrates the continued need for on-going mosquito control, mosquito surveillance and vigilance.

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.

Colorado Mosquito Control, Inc. continues to effectively serve the residents of the City of Longmont and the Boulder County Cooperative Mosquito Control Program using integrated mosquito management and state of the art technology to reduce mosquito nuisance and the related potential for disease transmission including West Nile Virus. Despite pressure by some to abandon larval control and IPM in favor of large scale spraying, CMC continued to promote a responsible IPM approach to mosquito management, fully utilizing all available biological control techniques while minimizing the use of chemical pesticides. CMC has been able to develop both a cost-effective and efficient program in City of Longmont over the past seasons and looks forward to continued service in 2008 and beyond. We also know that there is always room for improvement and have high expectations for program improvements and new successes in future years.

Colorado Mosquito Control, Inc.

695 North 7th Ave., Brighton, CO 80601, (303) 558-8730, info@comosquitocontrol.com, www.comosquitocontrol.com



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MosquitoLine Call Summary

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

County	Customer	
Boulder		
	Boulder County-MCD	546
	Erie, Town of	1
	Lafayette, City of	85
	Longmont, City of	252
	Louisville, City of	10
	Superior, Town of	4
	Total Calls	898

CMMS - Comprehensive Mosquito Management System

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ADULT TRAP DATA - SPECIES SUMMARY

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

Species	Total
Aedes (Oc.) dorsalis	1145
Aedes (Oc.) hendersoni	77
Aedes (Oc.) increpitus	4950
Aedes (Oc.) melanimon	4394
Aedes (Oc.) nigromaculis	21
Aedes (Oc.) sticticus	1
Aedes (Oc.) trivittatus	14770
Aedes cinereus	2
Aedes vexans	44198
	69558
Culiseta incidens	6
Culiseta inornata	1526
	1532
Culex pipiens	7785
Culex salinarius	23
Culex tarsalis	49291
	57099
Coquillettidia	59
Operational but empty	0
Trap malfunction	0
	59

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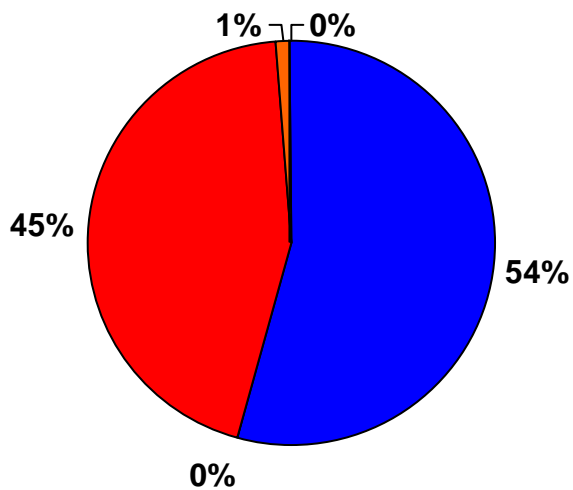


ADULT TRAP DATA - SPECIES SUMMARY

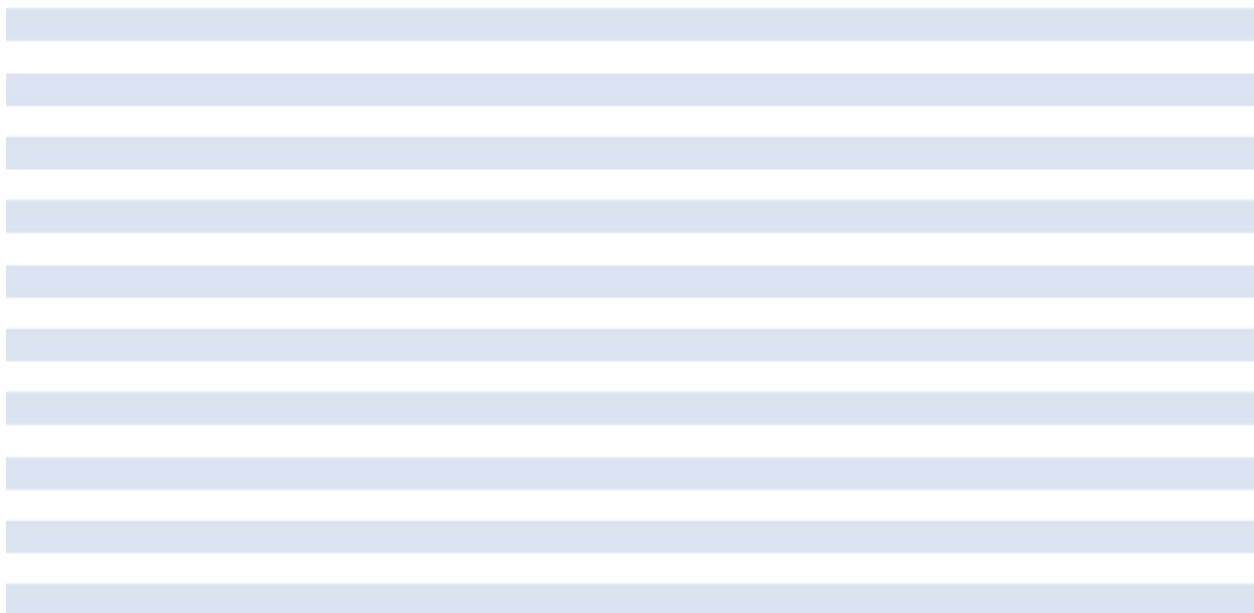
by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

Species

Total



	Total	%
■ Aedes-Oc	69558	54
■ Anopheles	0	0
■ Culex	57099	45
■ Culiseta	1532	1
■ Other	59	0
	128248	



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ADULTICIDE - CUSTOMER

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

	Subdiv/Area	Material	Start Time	End Time	Miles
Boulder County-MCD					
Backpack Barrier					
	6/20/2007 MINERAL ROAD	Talstar One	2:00 PM	2:35 PM	1.3
	6/20/2007 CLOVER CREEK	Talstar One	2:57 PM	3:32 PM	1.3
	6/21/2007 ANHAWA	Talstar One	2:35 PM	2:49 PM	0.5
	6/21/2007 SAN LAZARO MHP	Talstar One	12:00 AM	12:00 AM	0.0
	6/21/2007 THE WILLOWS	Talstar One	12:00 AM	12:00 AM	0.0
	6/21/2007 YELLOWSTONE RD	Talstar One	1:17 PM	2:19 PM	1.9
	6/25/2007 LAKE VALLEY	Talstar One	12:30 PM	1:10 PM	0.5
	6/25/2007 SAN LAZARO MHP	Talstar One	2:00 PM	2:40 PM	0.5
	7/24/2007 LAKE VALLEY	Talstar One	1:07 PM	2:12 PM	1.5
	8/30/2007 SAN LAZARO MHP	Talstar One	9:45 AM	10:50 AM	1.8
			Backpack Barrier	Sum	9.3
				Avg	0.9
				Min	0.0
				Max	1.9
Truck ULV					
	6/13/2007 BOULDER HILLS	AquaLuer ULV	8:50 PM	9:05 PM	3.6
	6/13/2007 DIVIDE RESERVOIR	AquaLuer ULV	9:25 PM	9:44 PM	2.8
	6/13/2007 FAIRGROUNDS	AquaLuer ULV	11:34 PM	11:47 PM	1.9
	6/13/2007 LEFT HAND CK 95TH	AquaLuer ULV	11:20 PM	11:26 PM	0.5
	6/13/2007 YELLOWSTONE RD	AquaLuer ULV	9:49 PM	10:00 PM	2.4
	6/13/2007 MINERAL RD COUNTY LN	AquaLuer ULV	8:37 PM	8:47 PM	1.1
	6/13/2007 THE WILLOWS	AquaLuer ULV	9:17 PM	9:29 PM	1.9
	6/13/2007 VALMONT 61ST TO 75TH	AquaLuer ULV	9:34 PM	10:23 PM	9.5
	6/13/2007 SAN LAZARO MHP	AquaLuer ULV	10:27 PM	10:34 PM	1.1
	6/20/2007 DIVIDE RESERVOIR	AquaLuer ULV	8:30 PM	8:51 PM	3.2
	6/20/2007 BRIGADOON	AquaLuer ULV	10:06 PM	12:00 AM	0.0
	6/20/2007 95TH ISABELLE	AquaLuer ULV	10:36 PM	11:16 PM	6.6
	6/20/2007 ST VRAIN 49TH 65TH	AquaLuer ULV	9:20 PM	10:10 PM	9.0
	6/20/2007 SAN LAZARO MHP	AquaLuer ULV	10:26 PM	10:34 PM	1.2
	6/20/2007 WILLOW GLEN PARK LK	AquaLuer ULV	11:25 PM	12:29 AM	11.0
	6/20/2007 BOULDER HILLS	AquaLuer ULV	9:30 PM	9:55 PM	5.0
	6/20/2007 BASELINE HTS GAPTER	AquaLuer ULV	9:05 PM	10:20 PM	14.7
	6/21/2007 BRIGADOON	AquaLuer ULV	10:00 PM	11:40 PM	27.0
	6/27/2007 WILDVIEW ESTATES	AquaLuer ULV	8:25 PM	8:48 PM	9.5
	6/27/2007 FAIRGROUNDS	AquaLuer ULV	9:25 PM	9:38 PM	1.9
	6/27/2007 SAN LAZARO MHP	AquaLuer ULV	8:38 PM	8:50 PM	2.0
	6/27/2007 95TH OGALLALA	AquaLuer ULV	8:54 PM	9:15 PM	4.1
	6/27/2007 BURCH MCCALL LAKE	AquaLuer ULV	9:55 PM	10:20 PM	5.1
	6/27/2007 THE WILLOWS	AquaLuer ULV	9:20 PM	9:33 PM	1.0
	6/27/2007 BRIGADOON	AquaLuer ULV	9:50 PM	10:33 PM	8.0
	7/3/2007 BROWNSVILLE	AquaLuer ULV	11:22 PM	12:31 AM	14.9
	7/3/2007 JOHNSON FARM	AquaLuer ULV	10:22 PM	10:31 PM	1.8
	7/3/2007 WILDVIEW ESTATES	AquaLuer ULV	10:37 PM	11:04 PM	5.7



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Colorado Mosquito Control, Inc.

ADULTICIDE - CUSTOMER

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

Subdiv/Area	Material	Start Time	End Time	Miles
7/3/2007 FAIRGROUNDS	AquaLuer ULV	11:33 PM	11:47 PM	2.8
7/3/2007 SCHLAGEL	AquaLuer ULV	11:51 PM	11:58 PM	1.8
7/3/2007 RED FOX HILLS	AquaLuer ULV	9:52 PM	10:05 PM	2.2
7/3/2007 ORANGE ORCHARD	AquaLuer ULV	8:50 PM	9:22 PM	5.9
7/3/2007 95TH AND LEFTHAND CK	AquaLuer ULV	10:55 PM	11:16 PM	3.4
7/3/2007 THE WILLOWS	AquaLuer ULV	9:31 PM	9:44 PM	2.9
7/3/2007 SHANNON ESTATES	AquaLuer ULV	1:07 AM	1:23 AM	3.0
7/3/2007 BOULDER HILLS	AquaLuer ULV	8:54 PM	9:16 PM	4.1
7/3/2007 BRIGADOON	AquaLuer ULV	9:26 PM	10:40 PM	15.0
7/5/2007 YELLOWSTONE RD	AquaLuer ULV	9:17 PM	9:36 PM	3.0
7/5/2007 PARK LAKE	AquaLuer ULV	12:21 AM	12:36 AM	4.0
7/11/2007 BOULDER HILLS	AquaLuer ULV	8:42 PM	9:08 PM	5.0
7/11/2007 BASELINE HEIGHTS	AquaLuer ULV	8:00 PM	9:24 PM	13.0
7/11/2007 BRIGADOON	AquaLuer ULV	9:17 PM	10:07 PM	9.0
7/11/2007 SCHLAGEL	AquaLuer ULV	10:21 PM	10:31 PM	2.1
7/11/2007 MARSHALL	AquaLuer ULV	11:01 PM	11:09 PM	1.0
7/11/2007 95TH AND LEFTHAND CK	AquaLuer ULV	9:10 PM	9:43 PM	4.2
7/11/2007 FAIRGROUNDS	AquaLuer ULV	9:43 PM	10:01 PM	3.0
7/11/2007 VALMONT 75TH STREET	AquaLuer ULV	9:41 PM	9:54 PM	3.0
7/11/2007 BURCH MCCALL LAKE	AquaLuer ULV	10:07 PM	10:47 PM	6.2
7/11/2007 DIVIDE RESERVOIR	AquaLuer ULV	8:36 PM	8:51 PM	2.5
7/11/2007 SPANISH HILLS AREA	AquaLuer ULV	10:18 PM	10:49 PM	7.0
7/18/2007 BROWNSVILLE	AquaLuer ULV	12:37 AM	1:40 AM	11.1
7/18/2007 SHANNON ESTATES	AquaLuer ULV	11:09 PM	12:16 AM	11.0
7/19/2007 WNV EMERGENCY LONGMO	AquaLuer ULV	2:05 AM	2:30 AM	12.5
7/19/2007 WNV EMERGENCY LONGMO	AquaLuer ULV	11:21 PM	2:22 AM	59.4
7/22/2007 WNV EMERGENCY LONGMO	AquaLuer ULV	10:10 PM	1:13 AM	66.3
7/25/2007 MARSHALL CHERRYVALE	AquaLuer ULV	9:39 PM	10:06 PM	6.0
7/25/2007 BOULDER HILLS	AquaLuer ULV	12:50 AM	1:05 AM	3.0
7/25/2007 PAUL NOR FAIRWIEW	AquaLuer ULV	10:20 PM	11:00 PM	8.0
7/25/2007 SAN LAZARO MHP	AquaLuer ULV	2:10 AM	2:19 AM	1.4
7/25/2007 VALMONT 75TH STREET	AquaLuer ULV	10:20 PM	11:20 PM	10.7
7/25/2007 ORANGE ORCHARD	AquaLuer ULV	1:18 AM	1:57 AM	6.5
7/25/2007 GUNBARREL GREEN	AquaLuer ULV	11:25 PM	12:02 AM	9.0
7/25/2007 BRIGADOON	AquaLuer ULV	11:58 PM	12:40 AM	9.0
7/25/2007 RED FOX HILLS	AquaLuer ULV	12:11 AM	12:30 AM	2.9
7/25/2007 OXFORD OURAY	AquaLuer ULV	1:10 AM	1:18 AM	1.0
7/25/2007 LARK MEADOWS	AquaLuer ULV	11:10 PM	11:29 PM	4.0
7/25/2007 THE WILLOWS	AquaLuer ULV	12:45 AM	12:59 AM	3.0
7/31/2007 FAIRGROUNDS	AquaLuer ULV	10:37 PM	10:59 PM	4.0
8/1/2007 MONARCH	AquaLuer ULV	8:26 PM	8:51 PM	6.7
8/1/2007 WILDVIEW ESTATES	AquaLuer ULV	11:46 PM	12:07 AM	5.9
8/1/2007 BURCH MCCALL LAKE	AquaLuer ULV	10:41 PM	11:09 PM	6.1
8/1/2007 75TH JAY VALMONT	AquaLuer ULV	10:10 PM	10:35 PM	5.2
8/1/2007 BRIGADOON	AquaLuer ULV	8:52 PM	10:24 PM	19.1



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ADULTICIDE - CUSTOMER

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

	Subdiv/Area	Material	Start Time	End Time	Miles
	8/1/2007 SAN LAZARO MHP	AquaLuer ULV	10:47 PM	11:03 PM	2.1
	8/1/2007 ORANGE ORCHARD	AquaLuer ULV	8:42 PM	9:31 PM	6.9
	8/1/2007 RUSTIC KNOLLS	AquaLuer ULV	9:42 PM	9:57 PM	3.0
	8/1/2007 PARK LAKE	AquaLuer ULV	11:19 PM	11:33 PM	3.6
	8/1/2007 SCHLAGEL	AquaLuer ULV	11:52 PM	11:58 PM	1.5
	8/8/2007 RED FOX HILLS	AquaLuer ULV	11:18 PM	11:39 PM	6.0
	8/8/2007 ORANGE ORCHARD	AquaLuer ULV	10:06 PM	11:04 PM	8.0
	8/8/2007 DIVIDE RESERVOIR	AquaLuer ULV	8:48 PM	9:04 PM	2.7
	8/8/2007 SAN LAZARO MHP	AquaLuer ULV	11:58 PM	12:19 AM	6.0
	8/8/2007 BOULDER HILLS	AquaLuer ULV	9:17 PM	9:43 PM	7.0
	8/8/2007 MONARCH	AquaLuer ULV	8:23 PM	9:03 PM	7.0
	8/8/2007 SCHLAGEL	AquaLuer ULV	10:16 PM	10:24 PM	1.6
	8/8/2007 YELLOWSTONE RD	AquaLuer ULV	9:11 PM	9:16 PM	1.1
	8/8/2007 BRIGADOON	AquaLuer ULV	9:03 PM	10:03 PM	13.0
	8/8/2007 ST VRAIN	AquaLuer ULV	10:33 PM	10:59 PM	4.8
	8/8/2007 FAIRGROUNDS	AquaLuer ULV	11:30 PM	11:48 PM	2.9
	8/15/2007 SCHLAGEL	AquaLuer ULV	9:30 PM	9:36 PM	1.9
	8/15/2007 FAIRGROUNGS	AquaLuer ULV	9:16 PM	9:27 PM	1.9
	8/15/2007 VALHALLA	AquaLuer ULV	9:05 PM	9:23 PM	4.0
	8/15/2007 BURCH MCCALL LAKE	AquaLuer ULV	10:44 PM	11:04 PM	4.0
	8/15/2007 WATERSTONE	AquaLuer ULV	8:45 PM	9:00 PM	3.0
	8/15/2007 WILDVIEW GAYNOR LAKE	AquaLuer ULV	9:45 PM	10:24 PM	7.0
	8/22/2007 WILDVIEW ESTATES	AquaLuer ULV	10:25 PM	10:39 PM	3.5
	8/22/2007 GUNBARREL GREEN	AquaLuer ULV	9:09 PM	10:04 PM	12.0
	8/22/2007 SAN LAZARO MHP	AquaLuer ULV	8:15 PM	8:31 PM	2.0
	8/22/2007 MCCALL LAKE	AquaLuer ULV	9:55 PM	10:03 PM	1.9
	8/22/2007 BRIGADOON	AquaLuer ULV	8:12 PM	9:37 PM	19.6
	8/22/2007 95TH AND LEFTHAND CK	AquaLuer ULV	10:42 PM	10:56 PM	2.1
	8/22/2007 RED FOX HILLS	AquaLuer ULV	8:42 PM	8:59 PM	3.0
	8/29/2007 SCHLAGEL	AquaLuer ULV	8:47 PM	8:56 PM	1.0
	8/29/2007 VALHALLA	AquaLuer ULV	9:14 PM	9:45 PM	7.0
	8/29/2007 FAIRGROUNDS	AquaLuer ULV	8:02 PM	8:45 PM	4.0
	9/5/2007 HEATHERWOOD	AquaLuer ULV	9:55 PM	10:45 PM	10.0
	9/5/2007 VERMILLION	AquaLuer ULV	7:55 PM	8:05 PM	3.0
	9/5/2007 WILDVIEW ESTATES	AquaLuer ULV	9:17 PM	9:42 PM	5.0
			Truck ULV	Sum	705.5
				Avg	6.5
				Min	0.0
				Max	66.3
	Lafayette City of				
	Truck ULV				
	6/19/2007 OLD TOWN NORTH	AquaLuer ULV	10:25 PM	10:40 PM	1.3
	6/19/2007 WANEKA LAKE AREA	AquaLuer ULV	9:50 PM	10:10 PM	3.7
	6/19/2007 BLUE HERON AREA	AquaLuer ULV	8:45 PM	9:40 PM	10.1
	6/26/2007 WANEKA LAKE	AquaLuer ULV	8:45 PM	9:25 PM	2.5



ADULTICIDE - CUSTOMER

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

	Subdiv/Area	Material	Start Time	End Time	Miles
	7/3/2007 OLD TOWN NORTH	AquaLuer ULV	10:27 PM	10:32 PM	1.0
	7/3/2007 BLUE HERON AREA	AquaLuer ULV	11:50 PM	12:50 AM	10.0
	7/3/2007 WANEKA LAKE	AquaLuer ULV	10:38 PM	11:23 PM	8.0
	7/10/2007 HILLSBORO KNOLLS	AquaLuer ULV	8:46 PM	10:09 PM	7.6
	7/10/2007 ANNAS FARM	AquaLuer ULV	8:23 PM	8:40 PM	1.7
	7/17/2007 OLD TOWN NORTH	AquaLuer ULV	10:59 PM	11:08 PM	1.2
	7/17/2007 BLUE HERON AREA	AquaLuer ULV	9:28 PM	10:38 PM	12.2
	7/31/2007 BLUE HERON AREA	AquaLuer ULV	9:05 PM	10:12 PM	12.0
	8/14/2007 BLUE HERON AREA	AquaLuer ULV	8:40 PM	9:45 PM	12.0
		Truck ULV		Sum	83.3
				Avg	6.4
				Min	1.0
				Max	12.2
Longmont City of					
	Truck ULV				
	6/13/2007 JIM HAMM POND	AquaLuer ULV	9:02 PM	9:10 PM	1.0
	6/13/2007 CLOVER CREEK	AquaLuer ULV	10:20 PM	11:14 PM	11.4
	6/27/2007 JIM HAMM POND	AquaLuer ULV	10:31 PM	10:41 PM	1.5
	7/3/2007 ROGERS GROVE PARK	AquaLuer ULV	11:25 PM	11:31 PM	1.2
	7/5/2007 FOX HILL GC	AquaLuer ULV	10:21 PM	10:55 PM	5.0
	7/5/2007 ST VRAIN GREENWAY	AquaLuer ULV	11:07 PM	11:12 PM	1.0
	7/5/2007 JIM HAMM POND	AquaLuer ULV	9:56 PM	10:10 PM	1.0
	7/11/2007 JIM HAMM POND	AquaLuer ULV	9:06 PM	9:19 PM	2.0
	7/11/2007 GOLDEN PONDS	AquaLuer ULV	10:02 PM	10:17 PM	3.2
	7/11/2007 THE SHORES	AquaLuer ULV	10:56 PM	11:49 PM	8.2
	7/11/2007 LANYON PARK	AquaLuer ULV	11:54 PM	12:13 AM	3.8
	7/19/2007 WNV EMERGENCY NW 01	AquaLuer ULV	8:30 PM	9:59 PM	16.0
	7/19/2007 WNV EMERGENCY E 03	AquaLuer ULV	8:43 PM	11:30 PM	38.0
	7/19/2007 WNV EMERGENCY SW 01	AquaLuer ULV	8:45 PM	12:22 AM	41.5
	7/19/2007 WNV EMERGENCY SW 03	AquaLuer ULV	12:40 AM	12:45 AM	16.0
	7/19/2007 WNV EMERGENCY NW 03	AquaLuer ULV	8:35 PM	10:29 PM	23.0
	7/19/2007 WNV EMERGENCY SW 02	AquaLuer ULV	9:00 PM	11:30 PM	36.7
	7/19/2007 WNV EMERGENCY SW 03	AquaLuer ULV	11:40 PM	1:45 AM	25.9
	7/19/2007 WNV EMERGENCY UNION S	AquaLuer ULV	8:40 PM	9:42 PM	16.0
	7/19/2007 WNV EMERGENCY NW 04	AquaLuer ULV	10:36 PM	12:50 AM	28.0
	7/19/2007 WNV EMERGENCY NW 02	AquaLuer ULV	10:04 PM	12:07 AM	52.0
	7/19/2007 WNV EMERGENCY E 01	AquaLuer ULV	8:34 PM	12:45 AM	46.3
	7/19/2007 WNV EMERGENCY E 02	AquaLuer ULV	11:51 PM	1:30 AM	31.0
	7/19/2007 WNV EMERGENCY WELD C	AquaLuer ULV	10:48 PM	11:19 PM	15.0
	7/22/2007 WNV EMERGENCY NW 02	AquaLuer ULV	10:38 PM	1:34 AM	29.0
	7/22/2007 WNV EMERGENCY SW 02	AquaLuer ULV	9:38 PM	12:40 AM	24.9
	7/22/2007 WNV EMERGENCY SW 01	AquaLuer ULV	9:15 PM	1:15 AM	46.0
	7/22/2007 WNV EMERGENCY E 03	AquaLuer ULV	1:22 AM	1:35 AM	4.5
	7/22/2007 WNV EMERGENCY E 02	AquaLuer ULV	8:37 PM	12:04 AM	31.0
	7/22/2007 WNV EMERGENCY NW 01	AquaLuer ULV	9:09 PM	10:31 PM	18.0



CMMS™
Colorado Mosquito Control, Inc.

ADULTICIDE - CUSTOMER

by REPORT DATE: 1/1/2007 to 9/20/2007
 by COUNTY: Boulder

Subdiv/Area	Material	Start Time	End Time	Miles	
7/22/2007 WNV EMERGENCY E 01	AquaLuer ULV	9:50 PM	1:26 AM	44.0	
7/22/2007 WNV EMERGENCY NW 04	AquaLuer ULV	11:04 PM	12:50 PM	28.0	
7/22/2007 WNV EMERGENCY NW 03	AquaLuer ULV	9:15 PM	10:59 PM	26.0	
7/22/2007 WNV EMERGENCY E 03 inclu	AquaLuer ULV	10:00 PM	1:31 AM	48.0	
7/22/2007 WNV EMERGENCY SW 02	AquaLuer ULV	11:52 PM	12:43 AM	12.0	
7/22/2007 WNV EMERGENCY SW 03	AquaLuer ULV	9:18 PM	11:33 PM	32.2	
7/25/2007 FOX HILL GC	AquaLuer ULV	8:38 PM	9:31 PM	5.3	
8/1/2007 FOX HILL GC	AquaLuer ULV	12:00 AM	12:00 AM	0.0	
8/1/2007 JIM HAMM POND	AquaLuer ULV	11:19 PM	11:32 PM	1.8	
8/8/2007 MEADOWVIEW	AquaLuer ULV	10:03 PM	10:16 PM	2.5	
8/8/2007 THE SHORES	AquaLuer ULV	11:20 PM	11:58 PM	7.0	
8/15/2007 JIM HAMM POND	AquaLuer ULV	8:55 PM	9:06 PM	1.5	
8/15/2007 THE SHORES	AquaLuer ULV	11:04 PM	11:43 PM	7.0	
8/22/2007 JIM HAMM POND	AquaLuer ULV	11:11 PM	11:18 PM	1.0	
8/29/2007 JIM HAMM POND	AquaLuer ULV	7:34 PM	7:45 PM	1.0	
9/5/2007 JIM HAMM POND	AquaLuer ULV	8:09 PM	8:17 PM	1.0	
Truck ULV				Sum	796.4
				Avg	17.3
				Min	0.0
				Max	52.0
Louisville City of					
Backpack Barrier					
7/2/2007 ANNETTE BRAND PARK	Talstar One	3:30 PM	4:03 PM	1.3	
Backpack Barrier				Sum	1.3
				Avg	1.3
				Min	1.3
				Max	1.3
Truck ULV					
7/3/2007 COAL CREEK TRAIL	AquaLuer ULV	9:45 PM	9:56 PM	2.0	
7/3/2007 COAL CREEK GC	AquaLuer ULV	9:03 PM	9:40 PM	4.0	
7/18/2007 COAL CREEK	AquaLuer ULV	9:10 PM	10:44 PM	8.5	
Truck ULV				Sum	14.5
				Avg	4.8
				Min	2.0
				Max	8.5
Superior Town of					
Truck ULV					
7/11/2007 COMMUNITY PARK	AquaLuer ULV	11:23 PM	11:33 PM	1.0	
7/12/2007 ORIGINAL TOWN	AquaLuer ULV	8:53 PM	9:20 PM	4.0	
7/30/2007 ORIGINAL TOWN	AquaLuer ULV	9:35 PM	10:01 PM	4.0	
7/30/2007 COMMUNITY PARK	AquaLuer ULV	9:10 PM	9:22 PM	2.0	
Truck ULV				Sum	11.0
				Avg	2.8
				Min	1.0
				Max	4.0

BC-01: Old Tale Road/South Boulder Creek

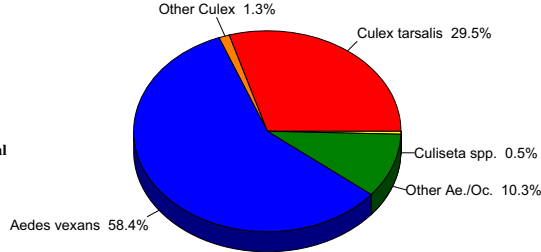
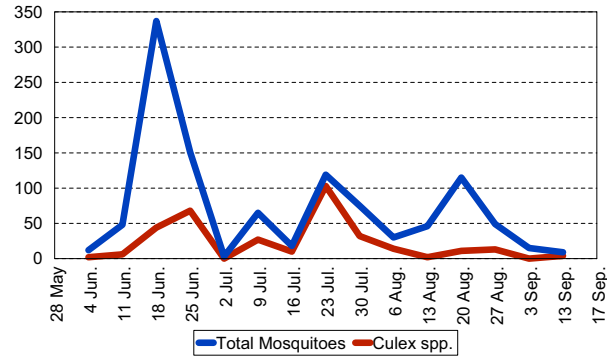
Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, Old Tale Road at South Boulder Creek
 GPS: N40° 0.455', W105° 12.956'

Total number of trap/nights set: 15
 Total number of mosquitoes collected: 1,092
 Average mosquitoes per trap/night: 73

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	638	58.4%
Other <i>Aedes/Ochlerotatus</i>	113	10.3%
<i>Culex tarsalis</i>	322	29.5%
Other <i>Culex</i>	14	1.3%
<i>Culiseta inornata</i>	5	0.5%



BC-02: Cottonwood Kennels

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, Valmont Road west of 75th Street
 GPS: N40° 2.078', W105° 10.999'

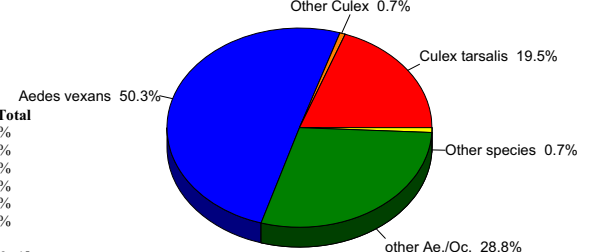
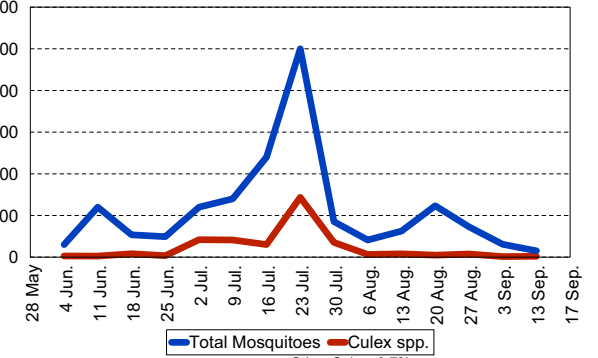
Total number of trap/nights set: 15
 Total number of mosquitoes collected: 8,420
 Average mosquitoes per trap/night: 561

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	4233	50.3%
Other <i>Aedes/Ochlerotatus</i>	2425	28.8%
<i>Coquillettidia perturbans</i>	28	0.3%
<i>Culex tarsalis</i>	1643	19.5%
Other <i>Culex</i>	56	0.7%
<i>Culiseta inornata</i>	35	0.4%

[see also results for the Gravid trap at this location (BC-02gr)]



BC-02gr: Cottonwood Kennels

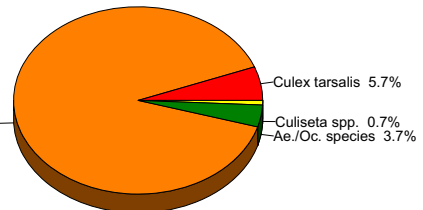
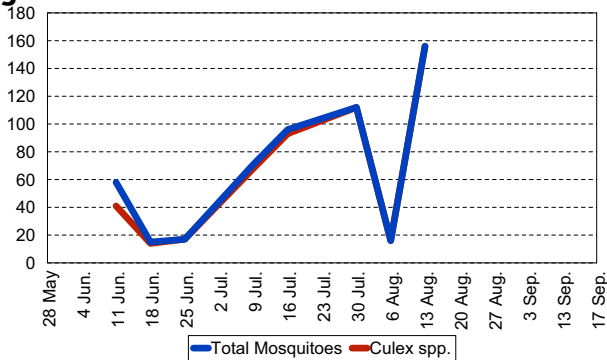
Season: 2007
 Trap Type: Gravid
 Location: Boulder, Valmont Road west of 75th Street
 GPS: N40° 2.078', W105° 10.999'

Total number of trap/nights set: 8
 Total number of mosquitoes collected: 541
 Average mosquitoes per trap/night: 68

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	11	2.0%
Other <i>Aedes/Ochlerotatus</i>	9	1.7%
<i>Culex tarsalis</i>	31	5.7%
Other <i>Culex</i>	486	89.8%
<i>Culiseta spp.</i>	4	0.7%



[see also results for the Light/CO₂ trap at this location (BC-02)]

BC-03: Boulder Gunbarrel SE – Pali Way

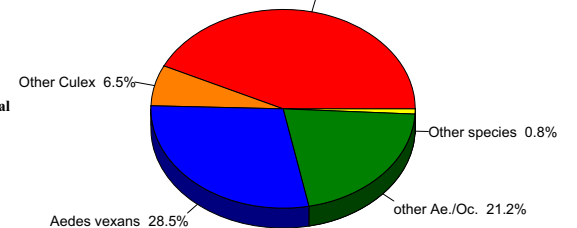
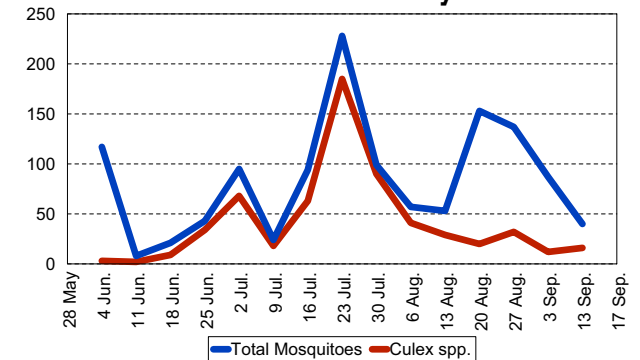
Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, 4311 Pali Way
 GPS: N40° 3.179', W105° 11.035'

Total number of trap/nights set: 15
 Total number of mosquitoes collected: 1,256
 Average mosquitoes per trap/night: 84

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	358	28.5%
Other <i>Aedes/Ochlerotatus</i>	266	21.2%
<i>Coquillettidia perturbans</i>	2	0.2%
<i>Culex tarsalis</i>	540	43.0%
Other <i>Culex</i>	82	6.5%
<i>Culiseta spp.</i>	8	0.6%



BC-04: Gunbarrel NW: Idylwild/Twin Lakes Road

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, Twin Lakes Road at Idylwild Court
 GPS: N40° 3.691', W105° 11.620'

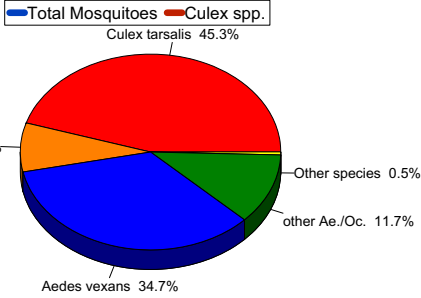
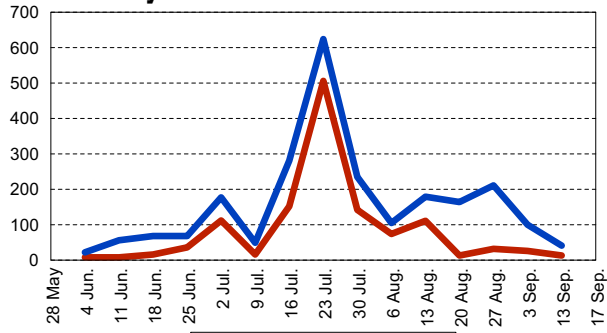
Total number of trap/nights set: 15
 Total number of mosquitoes collected: 2,380
 Average mosquitoes per trap/night: 159

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) inepitatus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Coquillettidia perturbans*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	825	34.7%
Other <i>Aedes/Ochlerotatus</i>	279	11.7%
<i>Coquillettidia perturbans</i>	1	0.0%
<i>Culex tarsalis</i>	1078	45.3%
Other <i>Culex</i>	187	7.9%
<i>Culiseta inornata</i>	10	0.4%



BC-05: Orange Orchard

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, west of 4373 30th Street
 GPS: N40° 3.250', W105° 15.285'

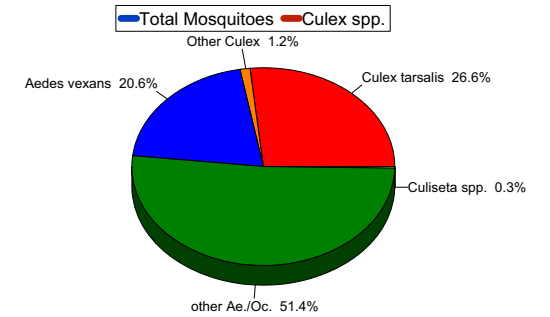
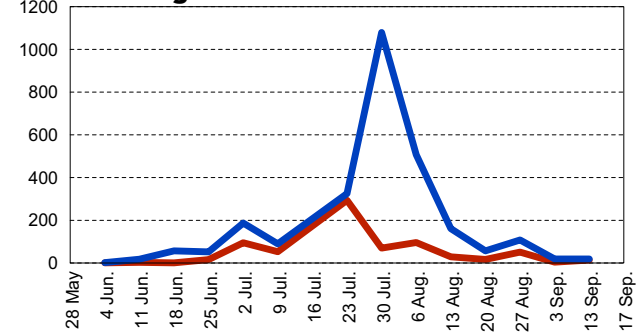
Total number of trap/nights set: 14
 Total number of mosquitoes collected: 2,681
 Average mosquitoes per trap/night: 192

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) inepitatus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) nigromaculis*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	551	20.6%
Other <i>Aedes/Ochlerotatus</i>	1379	51.4%
<i>Culex tarsalis</i>	712	26.6%
Other <i>Culex</i>	32	1.2%
<i>Culiseta inornata</i>	7	0.3%



BC-07: Brigadoon Glen/Left Hand Creek

Season: 2007
 Trap Type: Light/CO₂
 Location: along Left Hand Creek north of 6507 Robin Drive
 GPS: N40° 6.529', W105° 12.157'

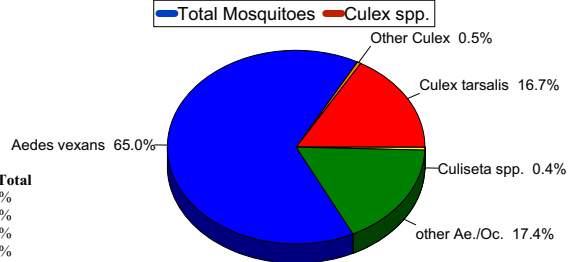
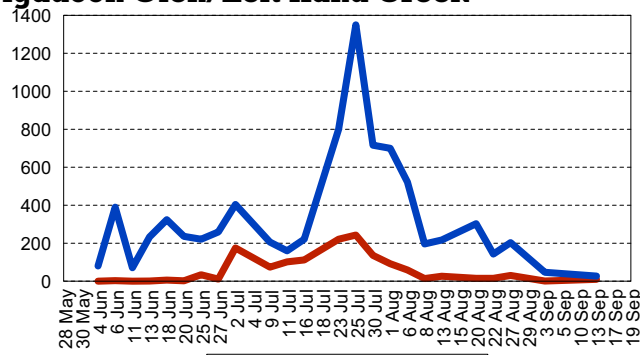
Total number of trap/nights set: 24
 Total number of mosquitoes collected: 8,029
 Average mosquitoes per trap/night: 335

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) inepitatus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex salinarius*
- Culex tarsalis*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	5217	65.0%
Other <i>Aedes/Ochlerotatus</i>	1395	17.4%
<i>Culex tarsalis</i>	1343	16.7%
Other <i>Culex</i>	39	0.5%
<i>Culiseta inornata</i>	35	0.4%



BC-08: Boulder Hills

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder Hills, North of Plateau Road at Boulder Hills Road
 GPS: N40° 7.840', W105° 12.988'

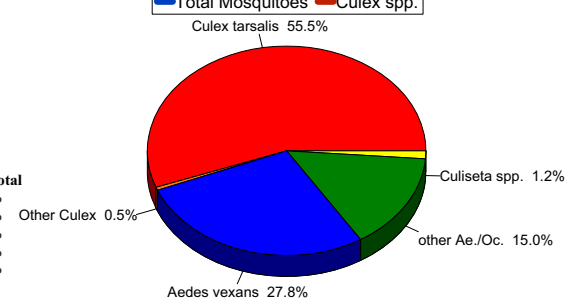
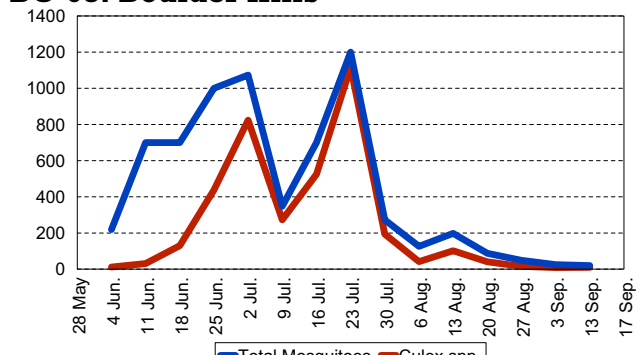
Total number of trap/nights set: 15
 Total number of mosquitoes collected: 6,719
 Average mosquitoes per trap/night: 448

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) inepitatus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex salinarius*
- Culex tarsalis*
- Culiseta incidens*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1869	27.8%
Other <i>Aedes/Ochlerotatus</i>	1008	15.0%
<i>Culex tarsalis</i>	3732	55.5%
Other <i>Culex</i>	31	0.5%
<i>Culiseta spp.</i>	79	1.2%



BC-11: Niwot East/Majestic Drive

Season: 2007
 Trap Type: Light/CO₂
 Location: 95th Street at Majestic Drive
 (9539 Majestic Drive)
 GPS: N40° 6.599', W105° 7.800'

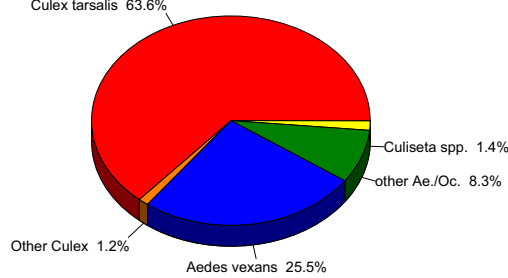
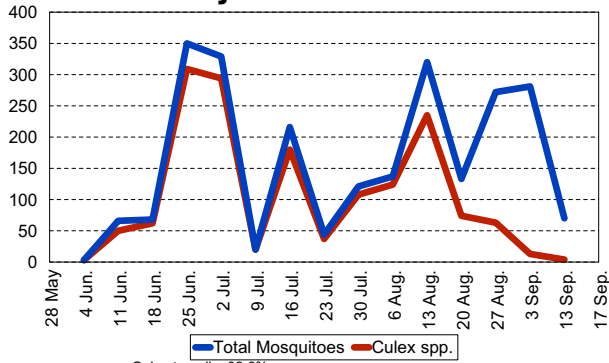
Total number of trap/nights set: 15
 Total number of mosquitoes collected: 2,430
 Average mosquitoes per trap/night: 162

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
<i>Aedes vexans</i>	619	25.5%
Other <i>Aedes/Ochlerotatus</i>	201	8.3%
<i>Culex tarsalis</i>	1546	63.6%
Other <i>Culex</i>	30	1.2%
<i>Culiseta inornata</i>	34	1.4%



BC-17: Niwot Central

Season: 2007
 Trap Type: Light/CO₂
 Location: Niwot, off Niwot Road, west of 83rd Street
 GPS: N40° 6.092', W105° 9.842'

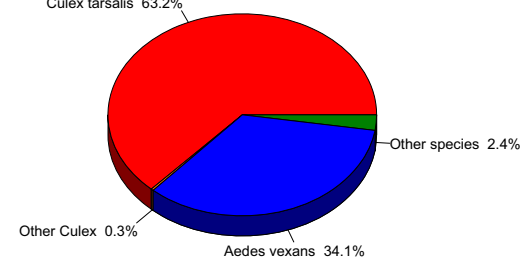
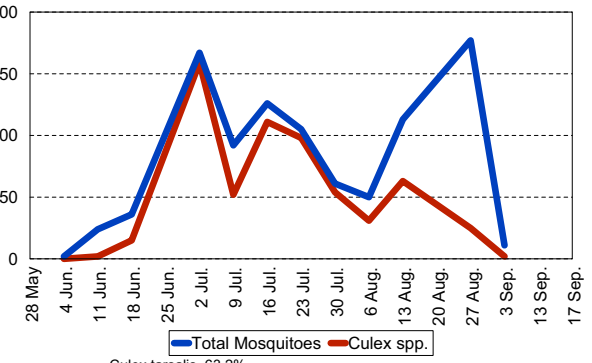
Total number of trap/nights set: 12
 Total number of mosquitoes collected: 964
 Average mosquitoes per trap/night: 80

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
<i>Aedes vexans</i>	329	34.1%
Other <i>Aedes/Ochlerotatus</i>	17	1.8%
<i>Culex tarsalis</i>	609	63.2%
Other <i>Culex</i>	3	0.3%
<i>Culiseta inornata</i>	6	0.6%



BC-20: Willows

Season: 2007
 Trap Type: Light/CO₂
 Location: The Willows Park, Wellington Road east of Spine Road
 GPS: N40° 3.416', W105° 12.713'

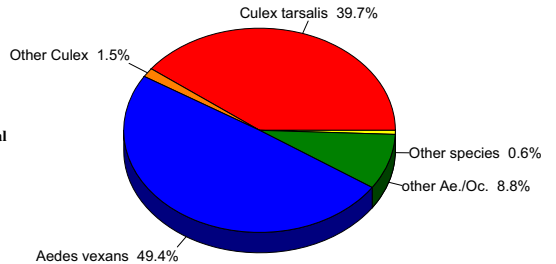
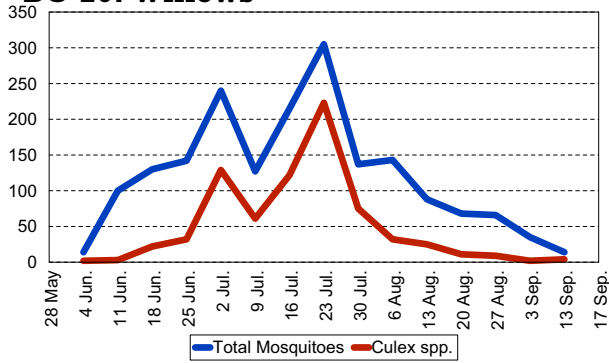
Total number of trap/nights set: 15
 Total number of mosquitoes collected: 1,824
 Average mosquitoes per trap/night: 122

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) inerepitus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Coquillettidia perturbans*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	901	49.4%
Other <i>Aedes/Ochlerotatus</i>	160	8.8%
<i>Coquillettidia perturbans</i>	1	0.1%
<i>Culex tarsalis</i>	725	39.7%
Other <i>Culex</i>	27	1.5%
<i>Culiseta inornata</i>	10	0.5%



BC-22: Marshall/South Boulder Creek

Season: 2007
 Trap Type: Light/CO₂
 Location: along South Boulder Creek behind 1453 Marshall Road
 GPS: N39° 57.546', W105° 13.941'

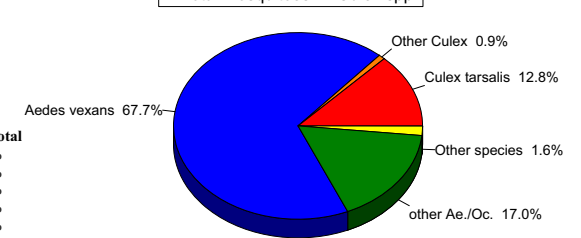
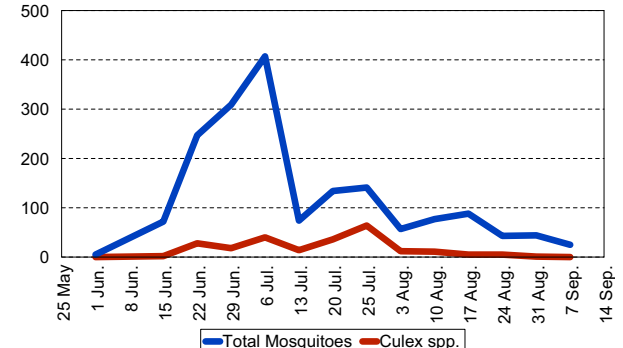
Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,723
 Average mosquitoes per trap/night: 123

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) inerepitus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Coquillettidia perturbans*
- Culex pipiens*
- Culex tarsalis*
- Culiseta incidens*
- Culiseta inornata*

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1167	67.7%
Other <i>Aedes/Ochlerotatus</i>	293	17.0%
<i>Coquillettidia perturbans</i>	9	0.5%
<i>Culex tarsalis</i>	221	12.8%
Other <i>Culex</i>	15	0.9%
<i>Culiseta spp.</i>	18	1.0%



BC-23: Louisville – Spanish Hills

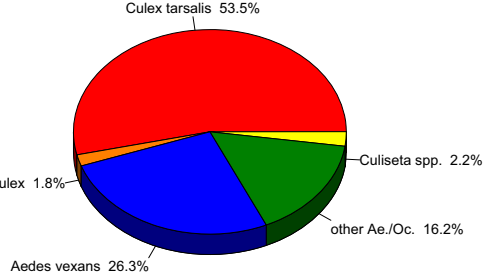
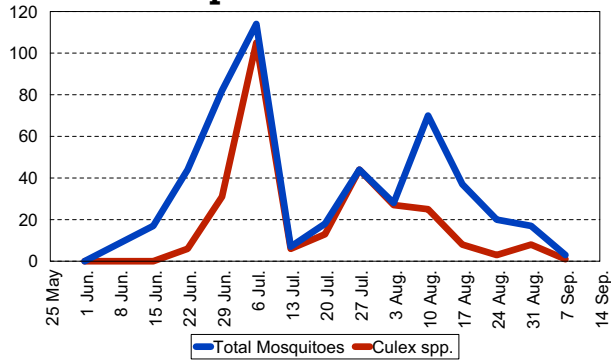
Season: 2007
 Trap Type: Light/CO₂
 Location: Louisville, 185 Cordova Court
 GPS: N39° 58.962', W105° 10.631'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 501
 Average mosquitoes per trap/night: 36

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	132	26.3%
Other <i>Aedes/Ochlerotatus</i>	81	16.2%
<i>Culex tarsalis</i>	268	53.5%
Other <i>Culex</i>	9	1.8%
<i>Culiseta inornata</i>	11	2.2%



BC-24: Louisville – Wewoka Drive

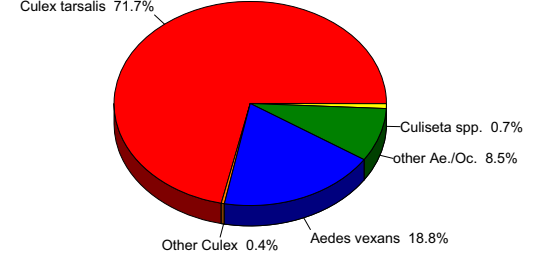
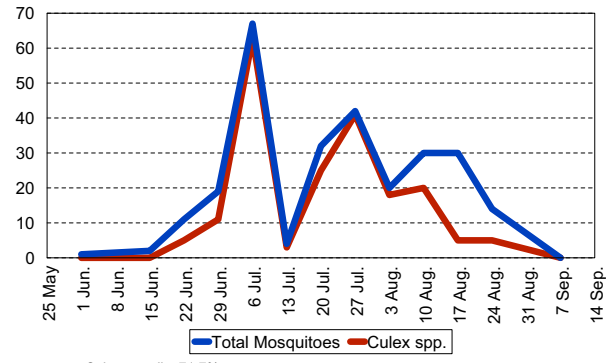
Season: 2007
 Trap Type: Light/CO₂
 Location: Louisville, 603 Wewoka Drive
 GPS: N39° 59.928', W105° 10.305'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 272
 Average mosquitoes per trap/night: 21

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	51	18.8%
Other <i>Aedes/Ochlerotatus</i>	23	8.5%
<i>Culex tarsalis</i>	195	71.7%
Other <i>Culex</i>	1	0.4%
<i>Culiseta inornata</i>	2	0.7%



BC-30: Brownsville – 222 Random Court

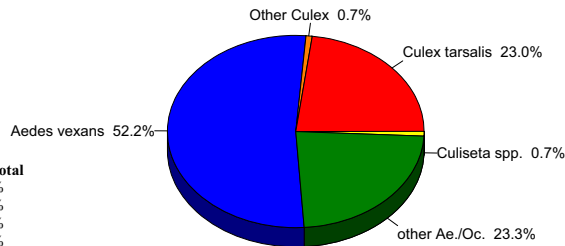
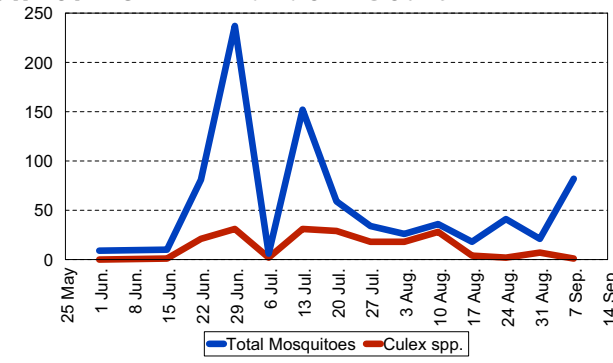
Season: 2007
 Trap Type: Light/CO₂
 Location: Brownsville neighborhood of Erie in lot southwest of 222 Random Court
 GPS: N40° 2.849', W105° 5.378'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 812
 Average mosquitoes per trap/night: 58

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	424	52.2%
Other <i>Aedes/Ochlerotatus</i>	189	23.3%
<i>Culex tarsalis</i>	187	23.0%
Other <i>Culex</i>	6	0.7%
<i>Culiseta inornata</i>	6	0.7%



BC-31: Divide Reservoir/Weeping Willow Ranch

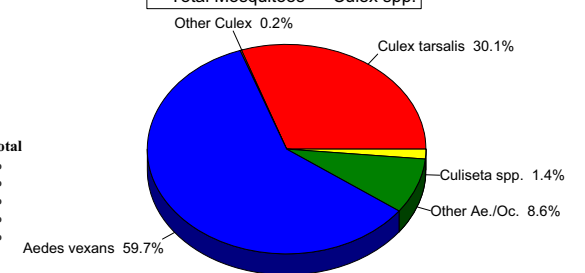
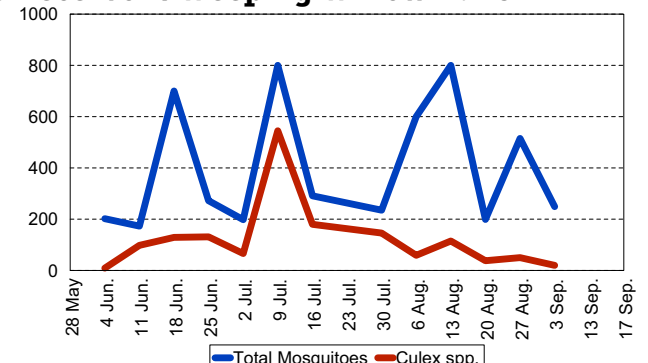
Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, 14587 115th Street
 GPS: N40° 14.344', W105° 5.027'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 5,234
 Average mosquitoes per trap/night: 403

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	3125	59.7%
Other <i>Aedes/Ochlerotatus</i>	448	8.6%
<i>Culex tarsalis</i>	1578	30.1%
Other <i>Culex</i>	8	0.2%
<i>Culiseta inornata</i>	75	1.4%



BC-32: Boulder – Baseline Heights

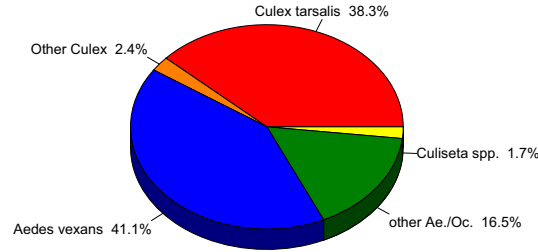
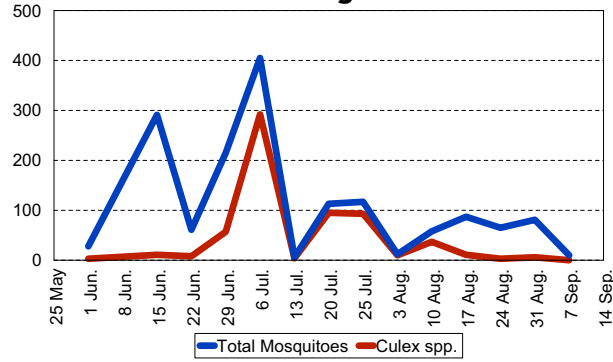
Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, across street to the west from 1450 Meadowlark Drive
 GPS: N40° 0.734', W105° 11.830'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,549
 Average mosquitoes per trap/night: 111

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	636	41.1%
Other <i>Aedes/Ochlerotatus</i>	256	16.5%
<i>Culex tarsalis</i>	593	38.3%
Other <i>Culex</i>	37	2.4%
<i>Culiseta inornata</i>	27	1.7%



BC-33: Lake Valley Estates – Loukonen Reservoir

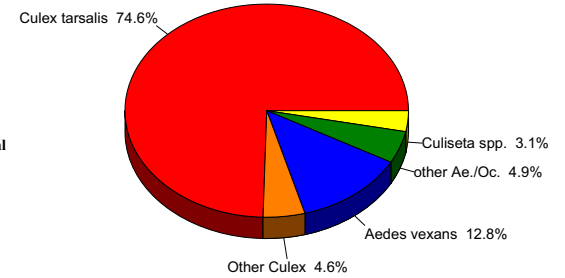
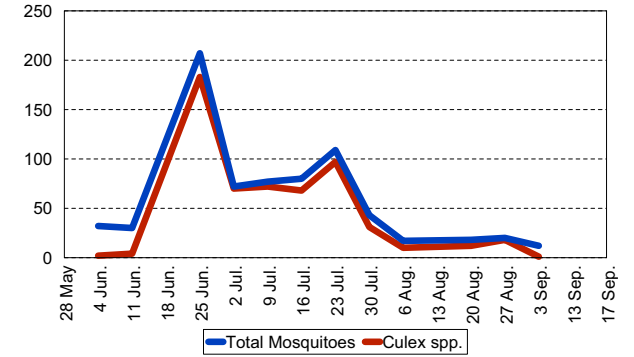
Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, down the hill from the south end of Fairways Drive at Loukonen Reservoir
 GPS: N40° 5.379', W105° 15.753'

Total number of trap/nights set: 12
 Total number of mosquitoes collected: 717
 Average mosquitoes per trap/night: 60

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	92	12.8%
Other <i>Aedes/Ochlerotatus</i>	35	4.9%
<i>Culex tarsalis</i>	535	74.6%
Other <i>Culex</i>	33	4.6%
<i>Culiseta inornata</i>	22	3.1%



BC-36: Yellowstone Road at Highland Ditch

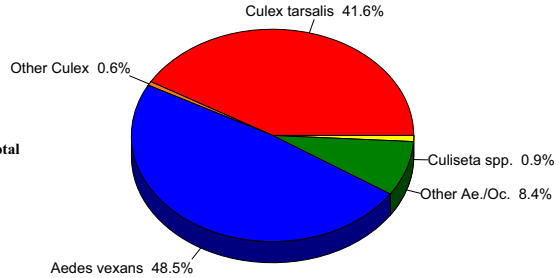
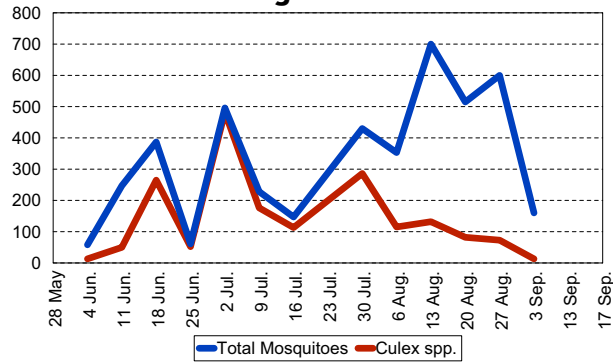
Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, along Highland Ditch at 8582 Yellowstone Road
 GPS: N40° 14.814', W105° 9.157'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 4,382
 Average mosquitoes per trap/night: 337

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	2125	48.5%
Other <i>Aedes/Ochlerotatus</i>	366	8.4%
<i>Culex tarsalis</i>	1825	41.6%
Other <i>Culex</i>	27	0.6%
<i>Culiseta inornata</i>	39	0.9%



BC-37: Burch Lake

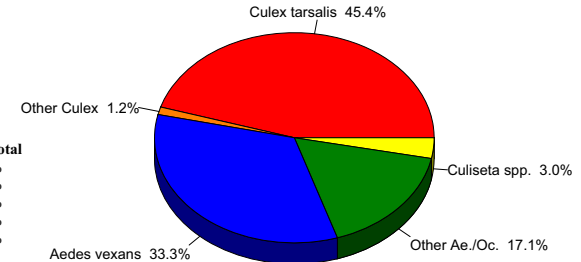
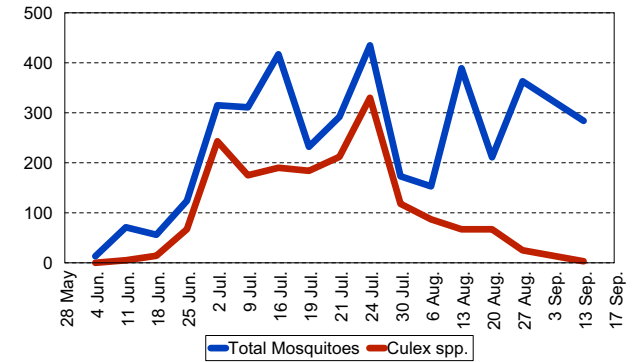
Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, east side of Burch Lake at 7348 Ute Road (Colo. Hwy. 66)
 GPS: N40° 12.178', W105° 10.939'

Total number of trap/nights set: 16
 Total number of mosquitoes collected: 3,839
 Average mosquitoes per trap/night: 240

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1279	33.3%
Other <i>Aedes/Ochlerotatus</i>	656	17.1%
<i>Culex tarsalis</i>	1742	45.4%
Other <i>Culex</i>	45	1.2%
<i>Culiseta inornata</i>	117	3.0%



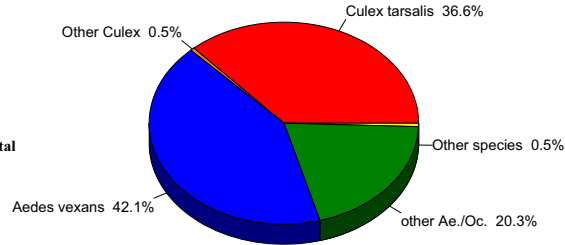
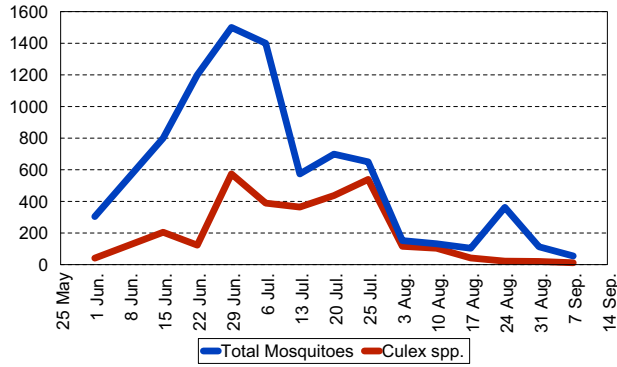
BC-38: Willow Glen/Teller Lake

Season: 2007
 Trap Type: Light/CO₂
 Location: Unincorporated Boulder County,
 Residence at 8495 Arapahoe Road
 GPS: N40° 1.135', W104° 9.440'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 8,045
 Average mosquitoes per trap/night: 575

Species collected:

- Aedes cinereus*
- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) inerepitus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Coquillettidia perturbans*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*



Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	3383	42.1%
Other <i>Aedes/Ochlerotatus</i>	1632	20.3%
<i>Coquillettidia perturbans</i>	6	0.1%
<i>Culex tarsalis</i>	2947	36.6%
Other <i>Culex</i>	41	0.5%
<i>Culiseta inornata</i>	36	0.4%

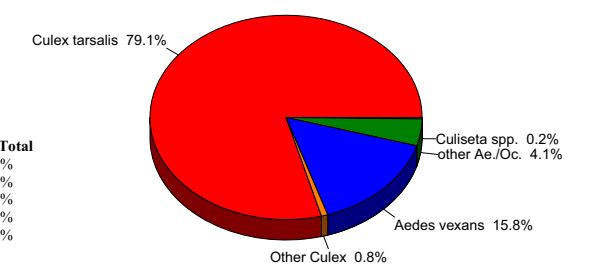
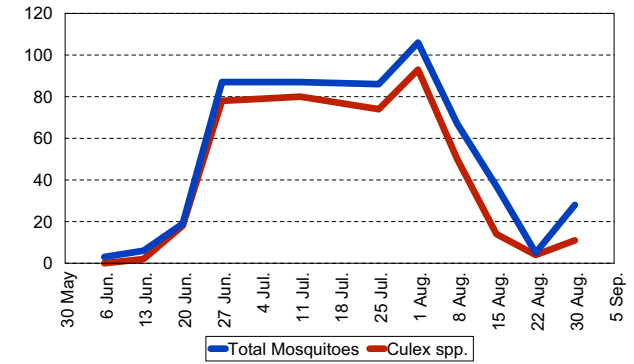
BC-39: Brigadoon Research Area SE – Kestrel Farm

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, 6849 No. 71st Street
 GPS: N40° 5.940', W105° 11.295'

Total number of trap/nights set: 11
 Total number of mosquitoes collected: 531
 Average mosquitoes per trap/night: 48

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*



Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	84	15.8%
Other <i>Aedes/Ochlerotatus</i>	22	4.1%
<i>Culex tarsalis</i>	420	79.1%
Other <i>Culex</i>	4	0.8%
<i>Culiseta inornata</i>	1	0.2%

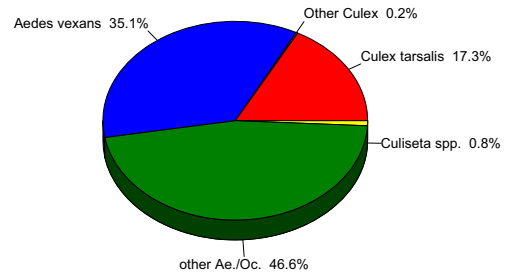
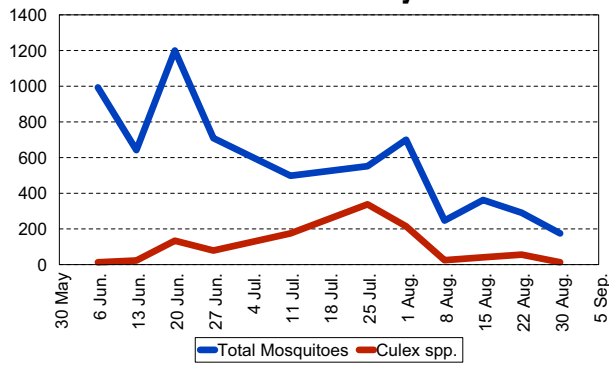
BC-40: Brigadoon Research Area NE – Kelly Ranch

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, 7001 Nimbus Road
 GPS: N40° 6.945', W105° 11.295'

Total number of trap/nights set: 11
 Total number of mosquitoes collected: 6,369
 Average mosquitoes per trap/night: 579

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) hendersoni*
- Aedes (Oc.) inerepitus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*



Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	2238	35.1%
Other <i>Aedes/Ochlerotatus</i>	2969	46.6%
<i>Culex tarsalis</i>	1100	17.3%
Other <i>Culex</i>	12	0.2%
<i>Culiseta inornata</i>	50	0.8%

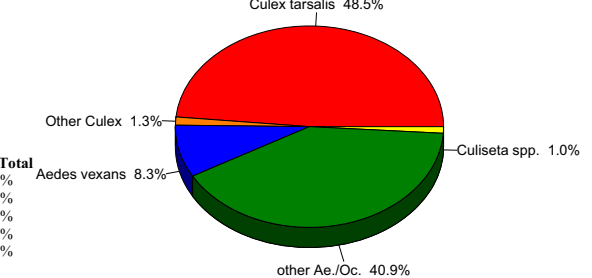
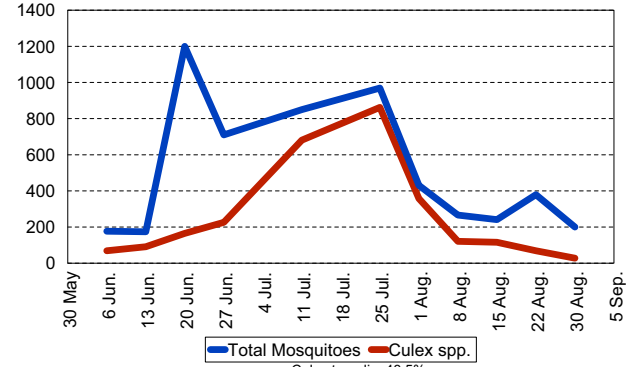
BC-40: Brigadoon Research Area NW – Newton Residence

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, 8099 63rd Street
 GPS: N40° 7.250', W105° 12.455'

Total number of trap/nights set: 11
 Total number of mosquitoes collected: 5,597
 Average mosquitoes per trap/night: 509

Species collected:

- Aedes vexans*
- Aedes (Oc.) dorsalis*
- Aedes (Oc.) inerepitus*
- Aedes (Oc.) melanimon*
- Aedes (Oc.) nigromaculis*
- Aedes (Oc.) trivittatus*
- Culex pipiens*
- Culex tarsalis*
- Culiseta inornata*



Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	465	8.3%
Other <i>Aedes/Ochlerotatus</i>	2290	40.9%
<i>Culex tarsalis</i>	2716	48.5%
Other <i>Culex</i>	70	1.3%
<i>Culiseta inornata</i>	56	1.0%

BC-40: Brigadoon Research Area SW – Haystack Golf Course

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, Haystack Golf Course
 GPS: N40° 6.230', W105° 13.075'

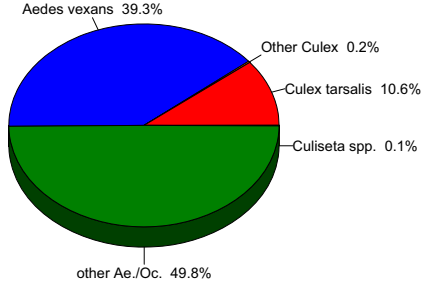
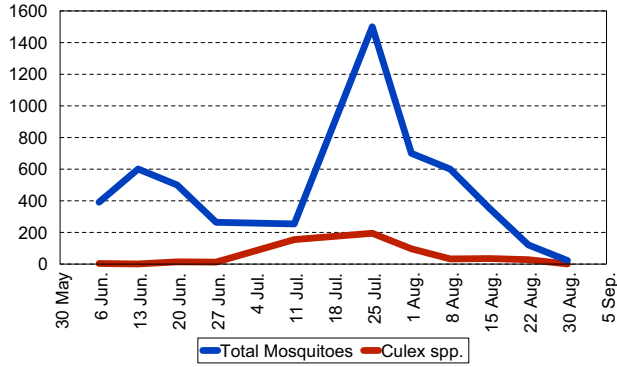
Total number of trap/nights set: 11
 Total number of mosquitoes collected: 5,307
 Average mosquitoes per trap/night: 482

Species collected:

Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta incidens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	2084	39.3%
Other <i>Aedes/Ochlerotatus</i>	2641	49.8%
<i>Culex tarsalis</i>	564	10.6%
Other <i>Culex</i>	12	0.2%
<i>Culiseta spp.</i>	6	0.1%



BC-43: Cline Trout Farm

Season: 2007
 Trap Type: Light/CO₂
 Location: Boulder, 5555 Valmont Road, east of San Lázaro Mobile Home Community
 GPS: N40° 1.980', W105° 13.355'

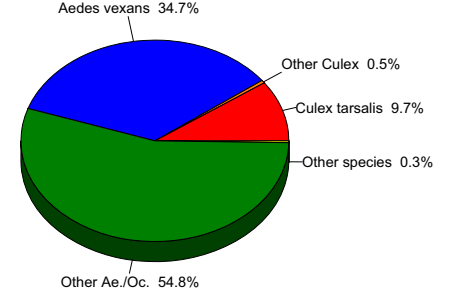
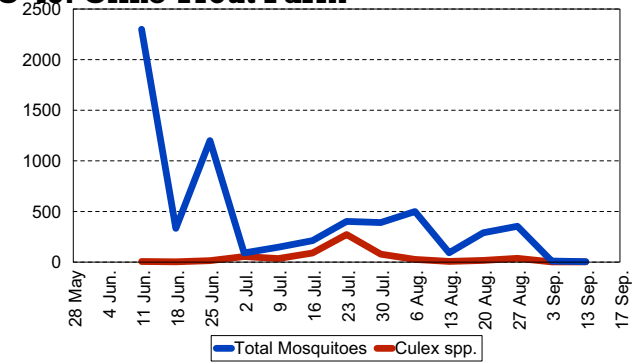
Total number of trap/nights set: 14
 Total number of mosquitoes collected: 6,327
 Average mosquitoes per trap/night: 452

Species collected:

Aedes vexans
Aedes (Oc.) hendersoni
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) trivittatus
Coquillettidia perturbans
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	2197	34.7%
Other <i>Aedes/Ochlerotatus</i>	3467	54.8%
<i>Coquillettidia perturbans</i>	12	0.2%
<i>Culex tarsalis</i>	616	9.7%
Other <i>Culex</i>	29	0.5%
<i>Culiseta inornata</i>	6	0.1%



2007 Boulder County Mosquito Control District CDC Light Trap Composite Data

Total number of trap/nights set: 368
 Total number of mosquitoes collected: 88,330
 Average mosquitoes per trap/night: 240

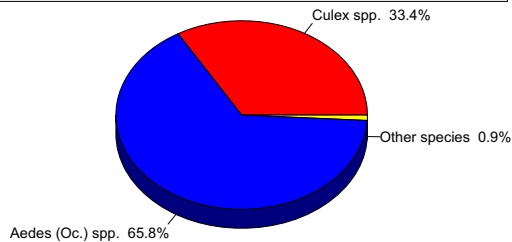
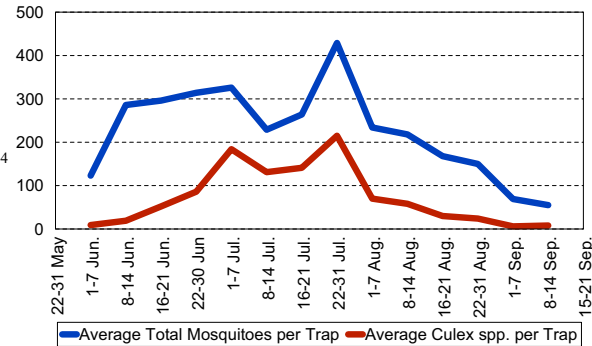
Trap sites included in this data: BC-01, BC-02, BC-03A, BC-04, BC-05, BC-07, BC-08, BC-11, BC-17, BC-20, BC-22, BC-23, BC-24, BC-30, BC-31, BC-32, BC-33, BC-36, BC-37, BC-38, BC-39, BC-40, BC-41, BC-42, BC-43, ER-03, ER-04

Species collected:

Aedes cinereus
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) increpitus
Aedes (Oc.) melanimon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Coquillettidia perturbans
Culex pipiens
Culex salinarius
Culex tarsalis
Culiseta incidens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes (Oc.) spp.</i>	58,101	65.8%
<i>Anopheles spp.</i>	0	0.0%
<i>Coquillettidia spp.</i>	59	0.1%
<i>Culex spp.</i>	29,464	33.4%
<i>Culiseta spp.</i>	706	0.8%



2007 Boulder County Sentinel Zone #2 CDC Light Trap Composite Data

Total number of trap/nights set: 107
 Total number of mosquitoes collected: 17,842
 Average mosquitoes per trap/night: 167

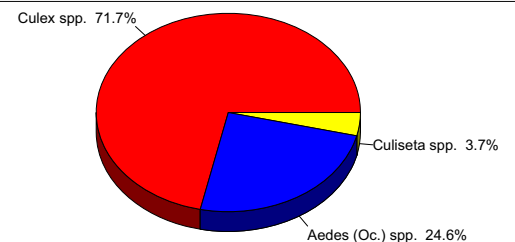
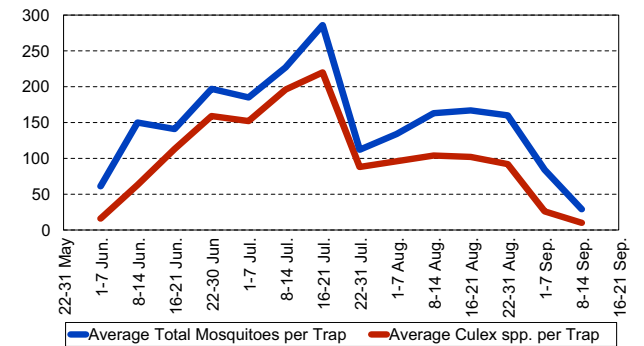
Trap sites included in this data: LM-03, LM-06, LM-07, LM-08, LM-20

Species collected:

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes (Oc.) spp.</i>	4397	24.6%
<i>Anopheles spp.</i>	0	0.0%
<i>Coquillettidia spp.</i>	0	0.0%
<i>Culex spp.</i>	12,792	71.7%
<i>Culiseta spp.</i>	653	3.7%



ER-03: Erie West/Canyon Creek

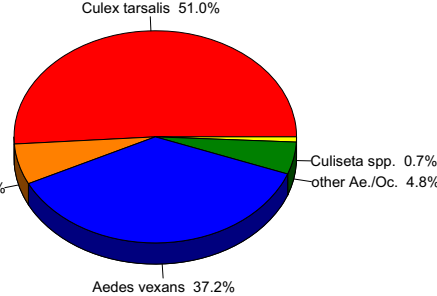
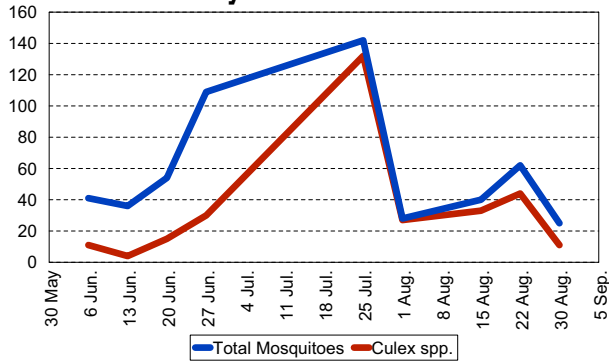
Season: 2007
 Trap Type: Light/CO₂
 Location: off bike path along Canyon Creek drainage north of Isabelle Road [formerly BC-25]
 GPS: N40° 2.297', W105° 4.076'

Total number of trap/nights set: 9
 Total number of mosquitoes collected: 537
 Average mosquitoes per trap/night: 60
 [note: traps were not set 4 July, 11 July, or 18 July, and therefore actual population levels are unknown for this period]

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	200	37.2%
Other <i>Aedes/Ochlerotatus</i>	26	4.8%
<i>Culex tarsalis</i>	274	51.0%
Other <i>Culex</i>	33	6.1%
<i>Culiseta inornata</i>	4	0.7%



ER-04: Erie Village/Kenosha Estates

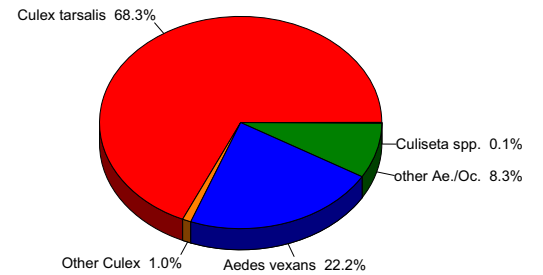
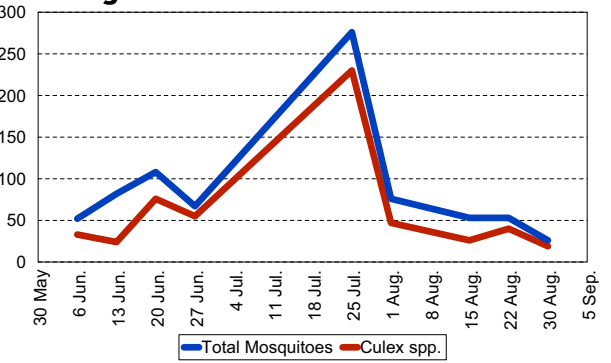
Season: 2007
 Trap Type: Light/CO₂
 Location: Erie Village, in trees along Coal Creek behind 1361 Washburn Avenue [formerly BC-35]
 GPS: N40° 3.904', W105° 3.429'

Total number of trap/nights set: 9
 Total number of mosquitoes collected: 793
 Average mosquitoes per trap/night: 88
 [note: traps were not set 4 July, 11 July, or 18 July, and therefore actual population levels are unknown for this period]

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
<i>Aedes vexans</i>	176	22.2%
Other <i>Aedes/Ochlerotatus</i>	66	8.3%
<i>Culex tarsalis</i>	542	68.3%
Other <i>Culex</i>	8	1.0%
<i>Culiseta inornata</i>	1	0.1%



LA-01: Lafayette Waneka Lake Park

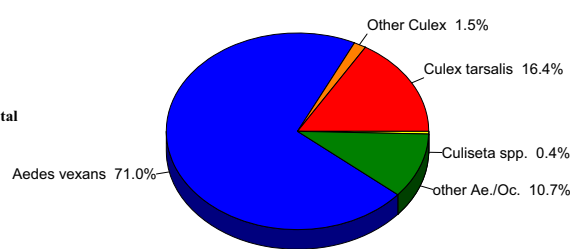
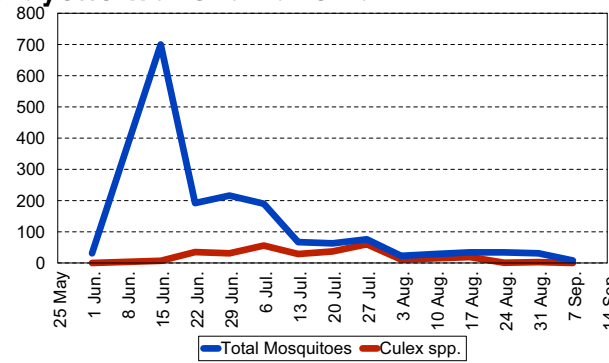
Season: 2007
 Trap Type: Light/CO₂
 Location: Lafayette, north of Atlantis Avenue at Caria Drive (southeast of Waneka Lake)
 GPS: N39° 59.442', W105° 6.481'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,694
 Average mosquitoes per trap/night: 121

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1202	71.0%
Other <i>Aedes/Ochlerotatus</i>	181	10.7%
<i>Culex tarsalis</i>	278	16.4%
Other <i>Culex</i>	26	1.5%
<i>Culiseta inornata</i>	7	0.4%



[see also results for the Gravid trap at this location (LA-01gr)]

LA-01gr: Lafayette Waneka Lake Park

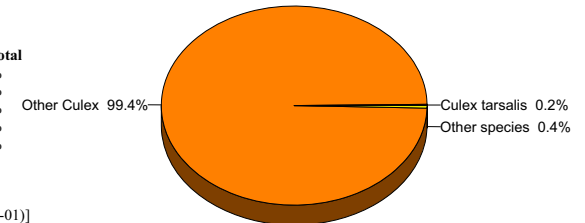
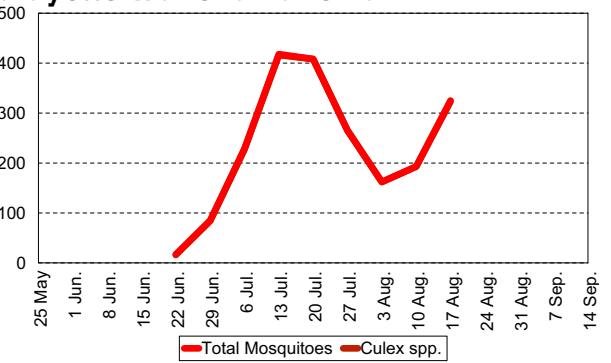
Season: 2007
 Trap Type: Gravid
 Location: Lafayette, north of Atlantis Avenue at Caria Drive (southeast of Waneka Lake)
 GPS: N39° 59.442', W105° 6.481'

Total number of trap/nights set: 9
 Total number of mosquitoes collected: 2,102
 Average mosquitoes per trap/night: 234

Species collected:
Aedes vexans
Culex pipiens
Culex tarsalis
Culiseta incidens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	3	0.1%
Other <i>Aedes/Ochlerotatus</i>	0	0.0%
<i>Culex tarsalis</i>	4	0.2%
Other <i>Culex</i>	2090	99.4%
<i>Culiseta spp.</i>	5	0.3%



[see also results for the Light/CO₂ trap at this location (LA-01)]

LA-05: Lafayette Blue Heron

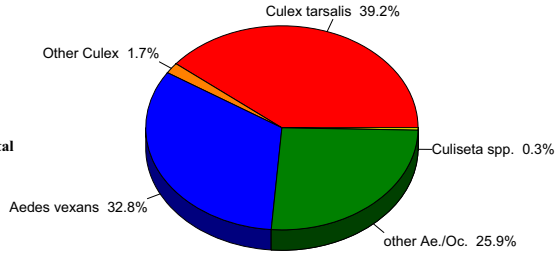
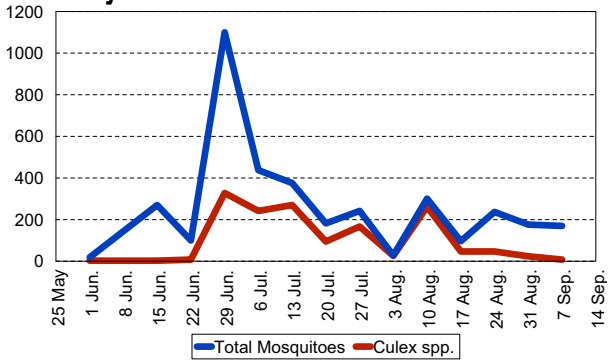
Season: 2007
 Trap Type: Light/CO₂
 Location: Lafayette, at the eastern end of Lake Meadow Drive near Heron Lake
 GPS: N40° 1.375', W105° 7.435'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 3,736
 Average mosquitoes per trap/night: 267

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1227	32.8%
Other <i>Aedes/Ochlerotatus</i>	966	25.9%
<i>Culex tarsalis</i>	1465	39.2%
Other <i>Culex</i>	65	1.7%
<i>Culiseta inornata</i>	13	0.3%



A-06: Lafayette East – Dounce Street

Season: 2007
 Trap Type: Light/CO₂
 Location: Lafayette, north side of Dounce Street East of Brooks Avenue
 GPS: N40° 0.073', W105° 4.881'

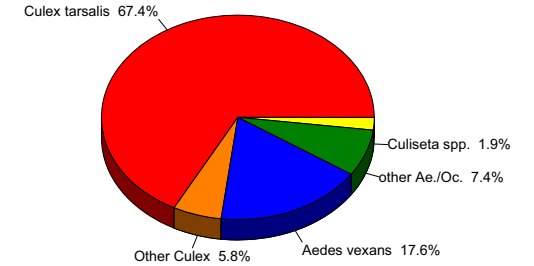
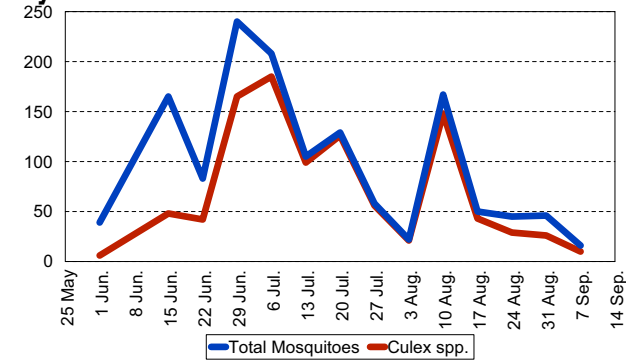
Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,373
 Average mosquitoes per trap/night: 98

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	241	17.6%
Other <i>Aedes/Ochlerotatus</i>	102	7.4%
<i>Culex tarsalis</i>	925	67.4%
Other <i>Culex</i>	79	5.8%
<i>Culiseta inornata</i>	26	1.9%

[see also results for the Gravid trap at this location (LA-06gr)]



A-06gr: Lafayette East – Dounce Street

Season: 2007
 Trap Type: Gravid
 Location: Lafayette, north side of Dounce Street East of Brooks Avenue
 GPS: N40° 0.073', W105° 4.881'

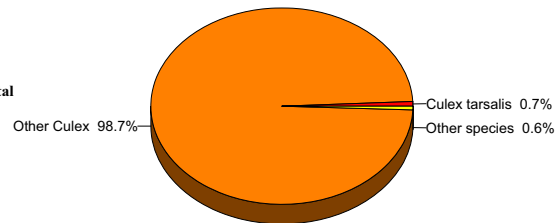
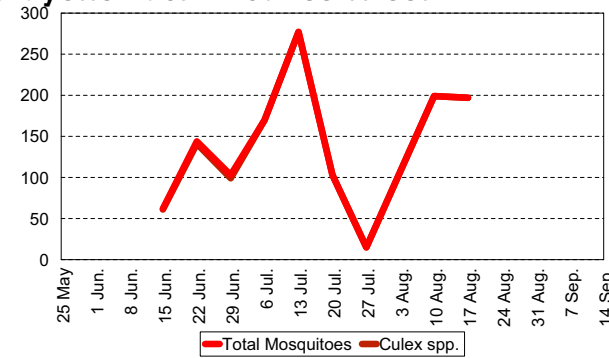
Total number of trap/nights set: 10
 Total number of mosquitoes collected: 1,377
 Average mosquitoes per trap/night: 138

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	3	0.2%
Other <i>Aedes/Ochlerotatus</i>	1	0.1%
<i>Culex tarsalis</i>	10	0.7%
Other <i>Culex</i>	1359	98.7%
<i>Culiseta inornata</i>	4	0.3%

[see also results for the Light/CO₂ trap at this location (LA-06)]



LM-02: Longmont Fox Hill Golf Course

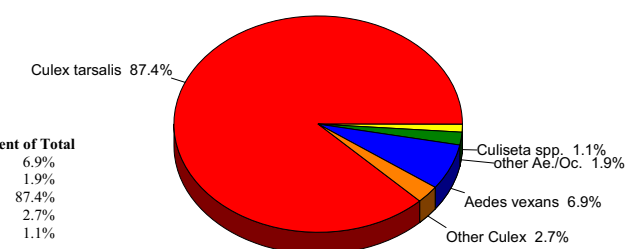
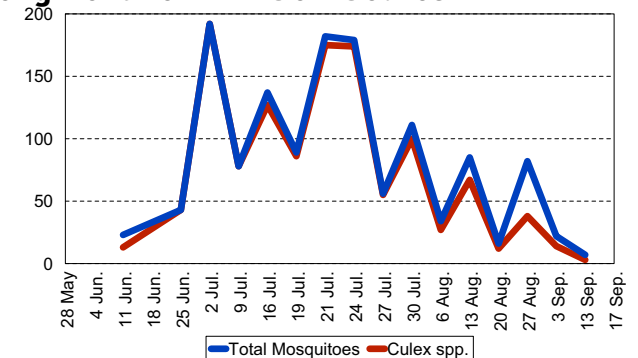
Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, southeast side of pond on golf course behind Fox Hill Drive at Hays Circle
 GPS: N40° 10.322', W105° 4.248'

Total number of trap/nights set: 16
 Total number of mosquitoes collected: 1,336
 Average mosquitoes per trap/night: 84

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	92	6.9%
Other <i>Aedes/Ochlerotatus</i>	25	1.9%
<i>Culex tarsalis</i>	1168	87.4%
Other <i>Culex</i>	36	2.7%
<i>Culiseta inornata</i>	15	1.1%



LM-03: Longmont Jim Hamm Nature Area

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, Hygene Road (Weld County Road 10) at County Line Road
 GPS: N40° 11.349, W105° 3.581'

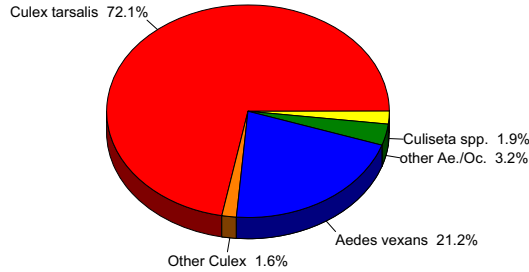
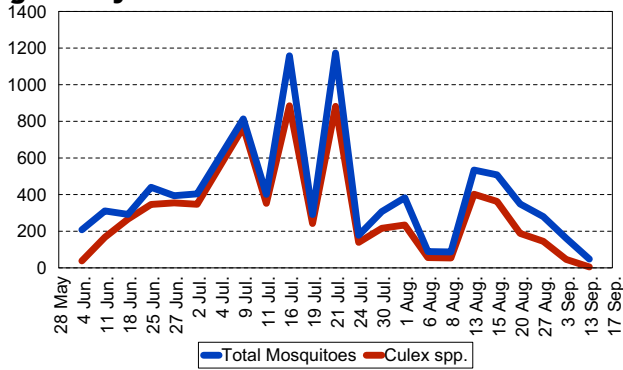
Total number of trap/nights set: 22
 Total number of mosquitoes collected: 8,809
 Average mosquitoes per trap/night: 400

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	1866	21.2%
Other <i>Aedes/Ochlerotatus</i>	281	3.2%
<i>Culex tarsalis</i>	6355	72.1%
Other <i>Culex</i>	141	1.6%
<i>Culiseta inornata</i>	166	1.9%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-05: Longmont Golden Ponds Park

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, off 3rd Avenue on east side of Golden Ponds Park
 GPS: N40° 10.119°, W105° 8.141'

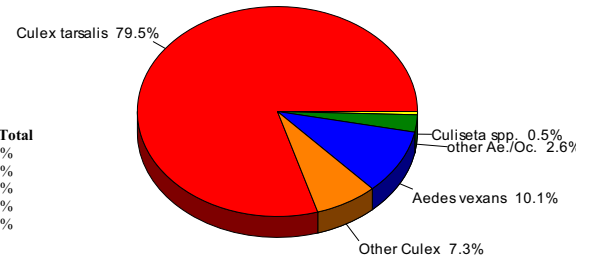
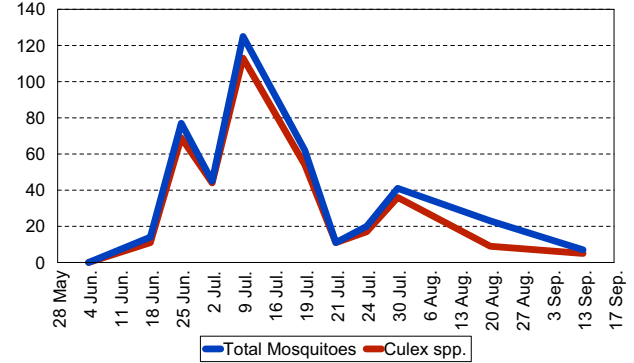
Total number of trap/nights set: 11
 Total number of mosquitoes collected: 425
 Average mosquitoes per trap/night: 39

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	43	10.1%
Other <i>Aedes/Ochlerotatus</i>	11	2.6%
<i>Culex tarsalis</i>	338	79.5%
Other <i>Culex</i>	31	7.3%
<i>Culiseta inornata</i>	2	0.5%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-06: Longmont – Boulder County Fairgrounds

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, on Boston Avenue east of Hover Road, across from Abra Auto and Glass Company
 GPS: N40° 9.521', W105° 7.548'

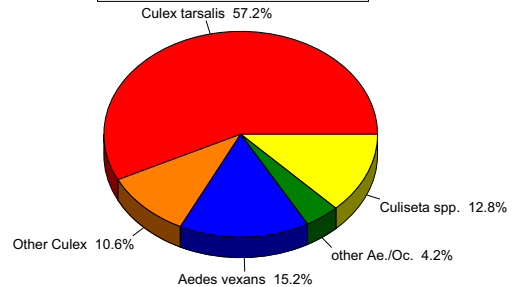
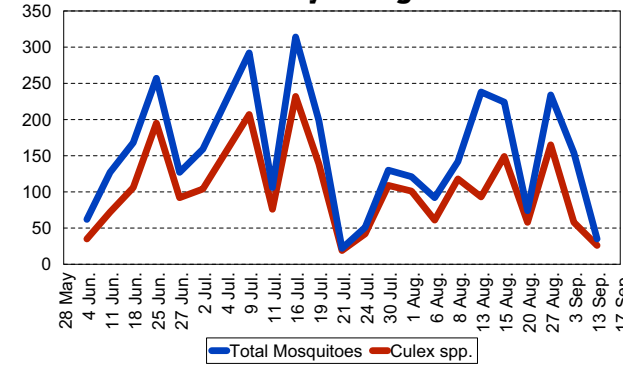
Total number of trap/nights set: 22
 Total number of mosquitoes collected: 3,328
 Average mosquitoes per trap/night: 151

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	506	15.2%
Other <i>Aedes/Ochlerotatus</i>	140	4.2%
<i>Culex tarsalis</i>	1903	57.2%
Other <i>Culex</i>	354	10.6%
<i>Culiseta inornata</i>	425	12.8%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-07: Longmont 9421 Schlagel

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, 9421 Schlagel Street
 GPS: N40° 8.739', W105° 8.822'

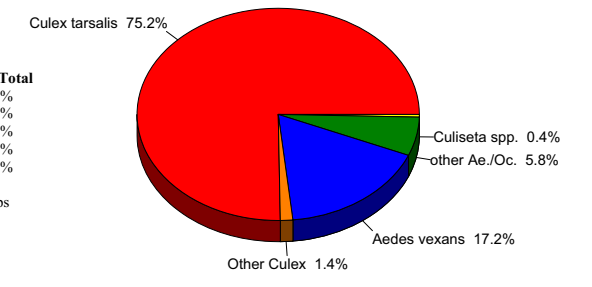
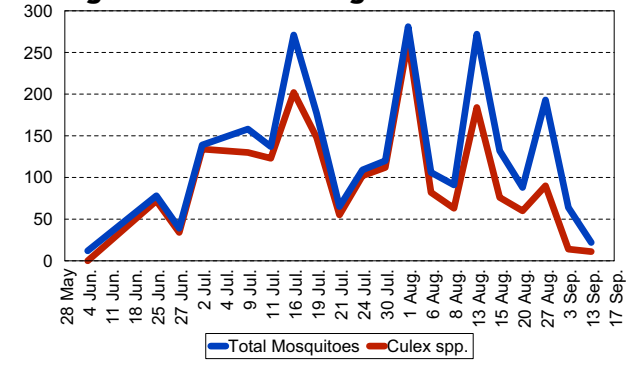
Total number of trap/nights set: 20
 Total number of mosquitoes collected: 2,554
 Average mosquitoes per trap/night: 128

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	440	17.2%
Other <i>Aedes/Ochlerotatus</i>	148	5.8%
<i>Culex tarsalis</i>	1921	75.2%
Other <i>Culex</i>	35	1.4%
<i>Culiseta inornata</i>	10	0.4%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-08: Longmont 95th Street and Left Hand Creek

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, off 95th Street, south of intersection with Longmont Diagonal, along Left Hand Creek
 GPS: N40° 8.050', W105° 7.923'

Total number of trap/nights set: 22
 Total number of mosquitoes collected: 1,842
 Average mosquitoes per trap/night: 84

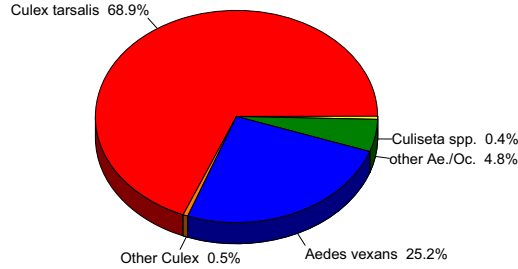
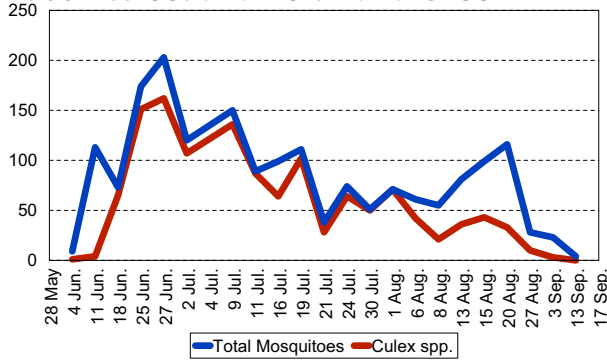
Species collected:

Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) melaninon
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	465	25.2%
Other <i>Aedes/Ochlerotatus</i>	89	4.8%
<i>Culex tarsalis</i>	1270	68.9%
Other <i>Culex</i>	10	0.5%
<i>Culiseta inornata</i>	8	0.4%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-10: Longmont Garden Acres Park

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, east side of Garden Acres Park (north of 18th Avenue, east of Spencer Street)
 GPS: N40° 11.637', W105° 7.278'

Total number of trap/nights set: 15
 Total number of mosquitoes collected: 785
 Average mosquitoes per trap/night: 52

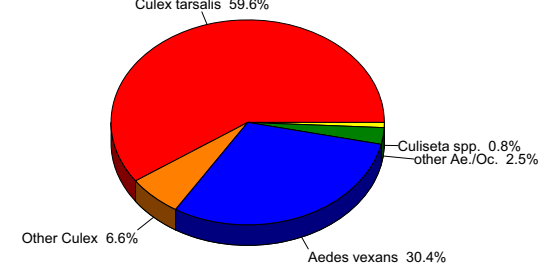
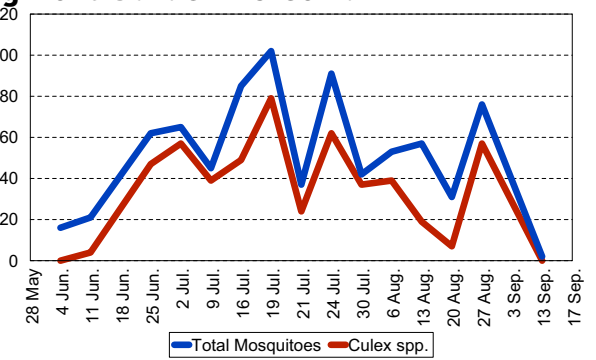
Species collected:

Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melaninon
Aedes (Oc.) nigromaculis
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	239	30.4%
Other <i>Aedes/Ochlerotatus</i>	20	2.5%
<i>Culex tarsalis</i>	468	59.6%
Other <i>Culex</i>	52	6.6%
<i>Culiseta inornata</i>	6	0.8%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-17: The Shores – Concord Way

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, The Shores between 3113 and 3117 Concord Way
 GPS: N40° 11.973', W105° 8.782'

Total number of trap/nights set: 16
 Total number of mosquitoes collected: 1,412
 Average mosquitoes per trap/night: 88

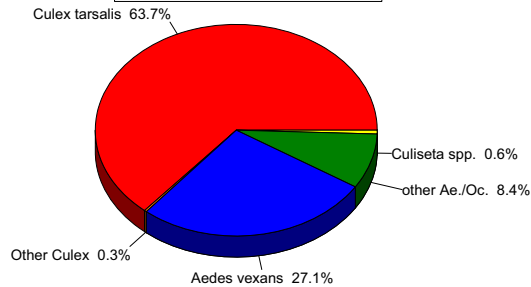
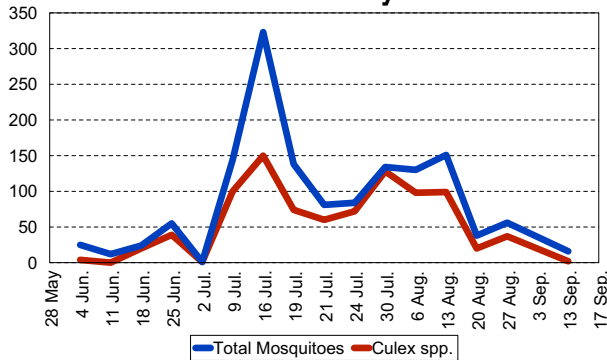
Species collected:

Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) melaninon
Aedes (Oc.) nigromaculis
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	382	27.1%
Other <i>Aedes/Ochlerotatus</i>	118	8.4%
<i>Culex tarsalis</i>	900	63.7%
Other <i>Culex</i>	4	0.3%
<i>Culiseta inornata</i>	8	0.6%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-20: Longmont St. Vrain Greenway Trail

Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, east of the confluence of St. Vrain and Left Hand Creeks
 GPS: N40° 9.285', W105° 5.100'

Total number of trap/nights set: 21
 Total number of mosquitoes collected: 1,309
 Average mosquitoes per trap/night: 62

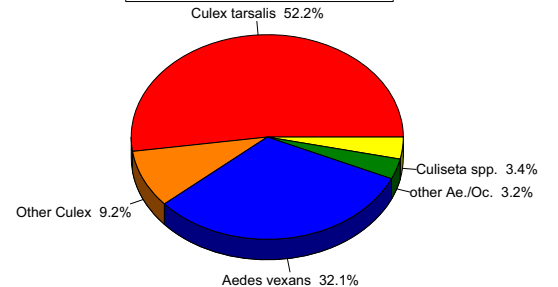
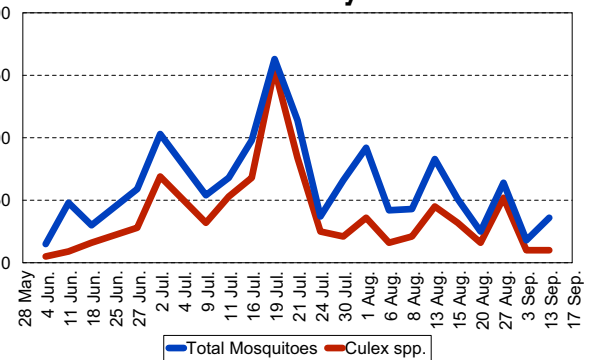
Species collected:

Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) increpitus
Aedes (Oc.) melaninon
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	420	32.1%
Other <i>Aedes/Ochlerotatus</i>	42	3.2%
<i>Culex tarsalis</i>	683	52.2%
Other <i>Culex</i>	120	9.2%
<i>Culiseta inornata</i>	44	3.4%

West Nile Virus Testing – This trap was one of five traps pooled together as Boulder County Sentinel Zone #2 (BCZ2) and tested for WNV and other diseases. See also BCZ2 Sentinel Zone Composite Data Sheet.



LM-21: Longmont Roosevelt Park

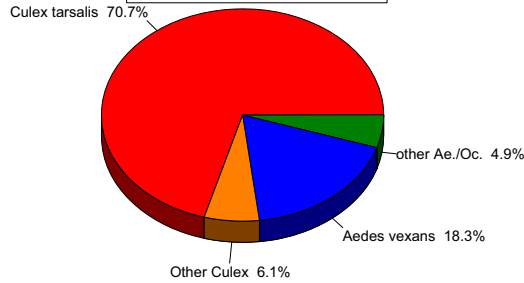
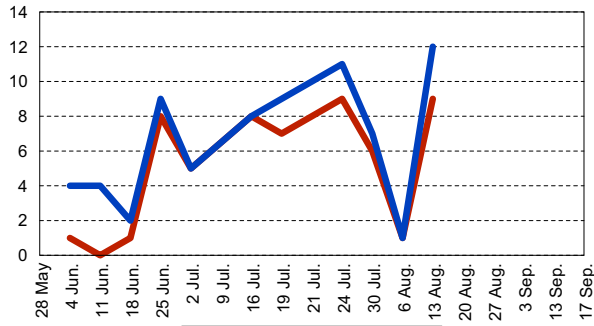
Season: 2007
 Trap Type: Light/CO₂
 Location: Longmont, in Roosevelt Park at the corner of Bross Street and 8th Avenue
 GPS: N40° 10.345', W105° 6.505'

Total number of trap/nights set: 11
 Total number of mosquitoes collected: 82
 Average mosquitoes per trap/night: 7

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	15	18.3%
Other <i>Aedes/Ochlerotatus</i>	4	4.9%
<i>Culex tarsalis</i>	58	70.7%
Other <i>Culex</i>	5	6.1%
<i>Culiseta inornata</i>	0	0.0%



2007 City of Longmont CDC Light Trap Composite Data

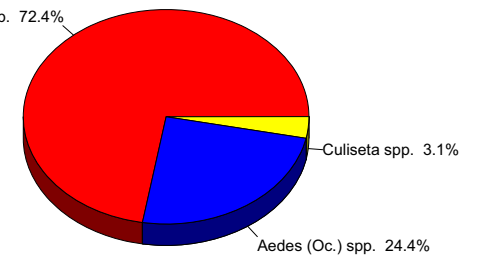
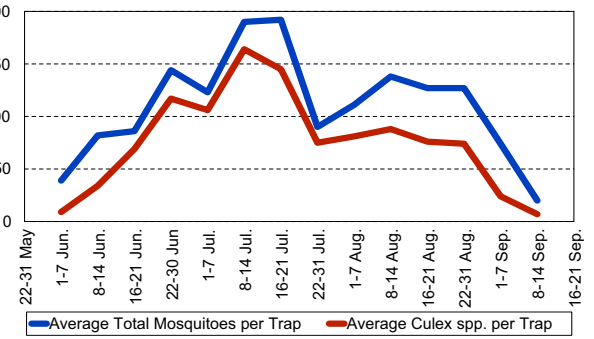
Total number of trap/nights set: 177
 Total number of mosquitoes collected: 21,882
 Average mosquitoes per trap/night: 124

Trap sites included in this data: LM-02, LM-03, LM-05, LM-06, LM-07, LM-08, LM-10, LM-17, LM-20, LM-21

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes (Oc.) spp.</i>	5346	24.4%
<i>Anopheles spp.</i>	0	0.0%
<i>Coquillettidia spp.</i>	0	0.0%
<i>Culex spp.</i>	15,852	72.4%
<i>Culiseta spp.</i>	684	3.1%



LO-01: Louisville Coal Creek Golf Course

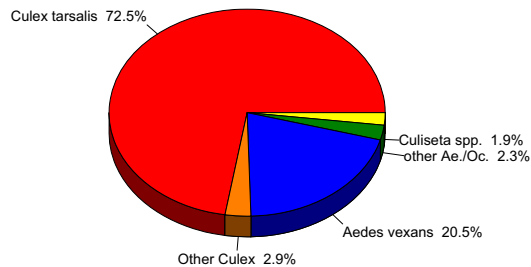
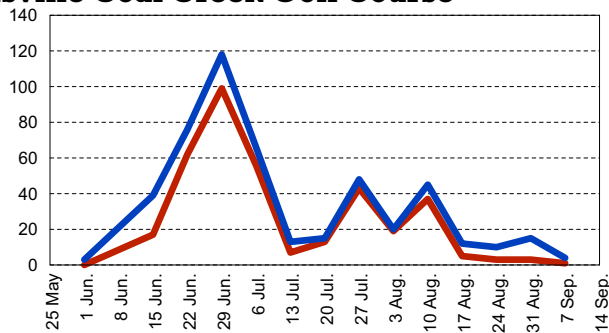
Season: 2007
 Trap Type: Light/CO₂
 Location: Louisville, Coal Creek Golf Course, Dillon Road at bridge over Coal Creek
 GPS: N39° 57.470', W105° 9.115'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 484
 Average mosquitoes per trap/night: 35

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	99	20.5%
Other <i>Aedes/Ochlerotatus</i>	11	2.3%
<i>Culex tarsalis</i>	351	72.5%
Other <i>Culex</i>	14	2.9%
<i>Culiseta inornata</i>	9	1.9%



LO-04: Louisville Annette Brand Park/Louisville Reservoir

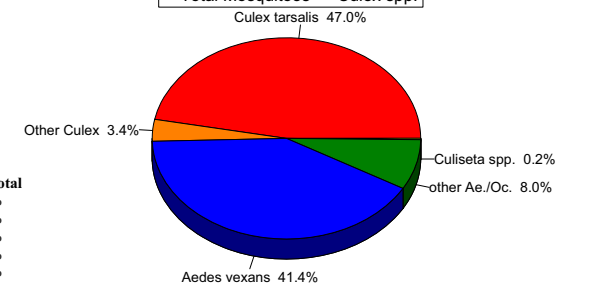
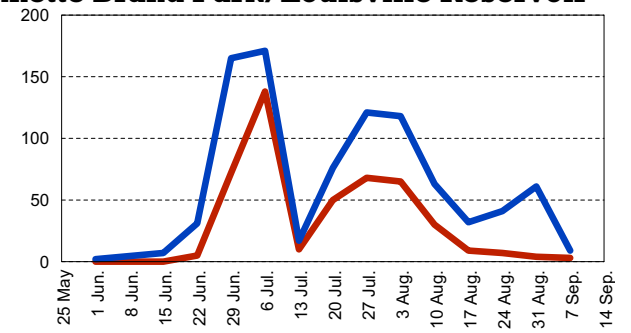
Season: 2007
 Trap Type: Light/CO₂
 Location: Louisville, in Annette A. Brand Park at entrance to Louisville Reservoir
 GPS: N39° 59.409', W105° 9.495'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 914
 Average mosquitoes per trap/night: 65

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	378	41.4%
Other <i>Aedes/Ochlerotatus</i>	73	8.0%
<i>Culex tarsalis</i>	430	47.0%
Other <i>Culex</i>	31	3.4%
<i>Culiseta inornata</i>	2	0.2%



LO-08: Louisville Southeast – Coal Creek Trail

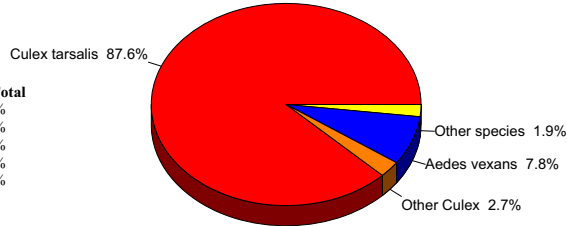
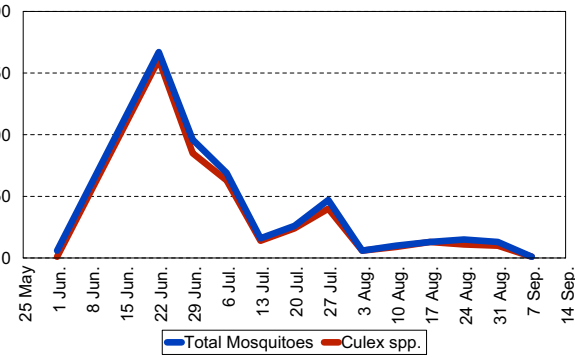
Season: 2007
 Trap Type: Light/CO₂
 Location: Louisville, at Coal Creek trailhead
 South of Aspen Way
 GPS: N39° 58.113', W105° 7.982'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 485
 Average mosquitoes per trap/night: 37

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	38	7.8%
Other <i>Aedes/Ochlerotatus</i>	4	0.8%
<i>Culex tarsalis</i>	425	87.6%
Other <i>Culex</i>	13	2.7%
<i>Culiseta inornata</i>	5	1.0%



[see also results for the Gravid trap at this location (LO-08gr)]

LO-08gr: Louisville Southeast – Coal Creek Trail

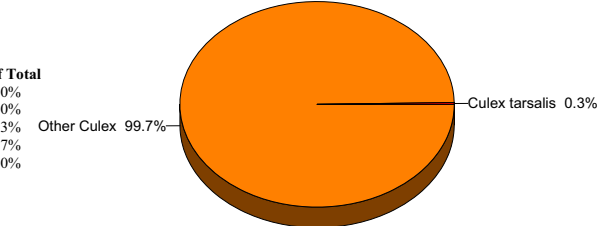
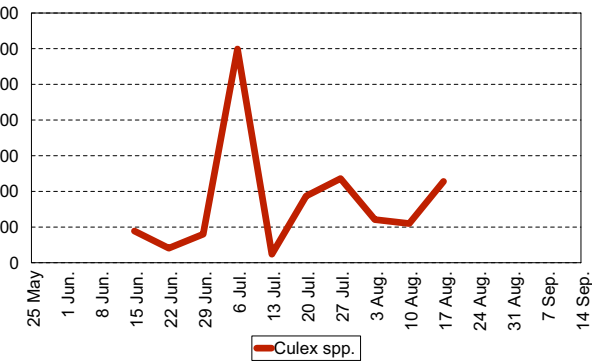
Season: 2007
 Trap Type: Gravid
 Location: Louisville, at Coal Creek trailhead
 South of Aspen Way
 GPS: N39° 58.113', W105° 7.982'

Total number of trap/nights set: 10
 Total number of mosquitoes collected: 1,715
 Average mosquitoes per trap/night: 172

Species collected:
Culex pipiens
Culex tarsalis

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	0	0.0%
Other <i>Aedes/Ochlerotatus</i>	0	0.0%
<i>Culex tarsalis</i>	5	0.3%
Other <i>Culex</i>	1710	99.7%
<i>Culiseta inornata</i>	0	0.0%



[see also results for the Light/CO₂ trap at this location (LO-08)]

SU-01: Superior – Rock Creek

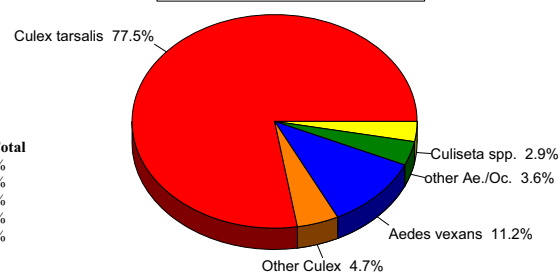
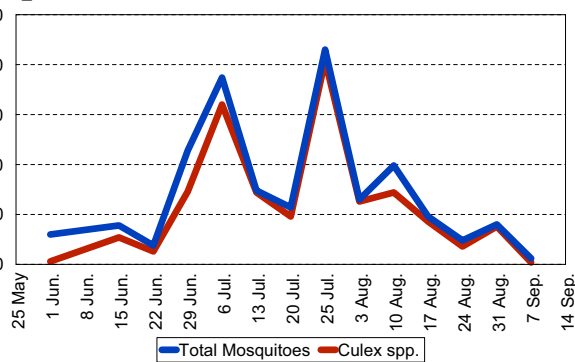
Season: 2007
 Trap Type: Light/CO₂
 Location: Superior, northeast of Coalton Drive
 and McCaslin Boulevard
 GPS: N39° 55.776', W105° 9.782'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,017
 Average mosquitoes per trap/night: 73

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

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	114	11.2%
Other <i>Aedes/Ochlerotatus</i>	37	3.6%
<i>Culex tarsalis</i>	788	77.5%
Other <i>Culex</i>	48	4.7%
<i>Culiseta inornata</i>	30	2.9%



SU-02: Superior Central/Coal Creek

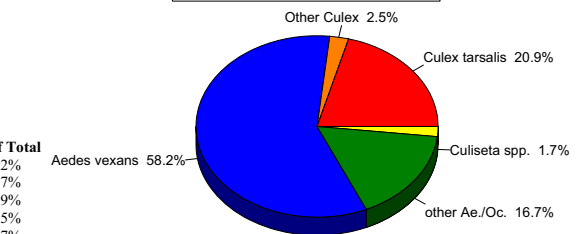
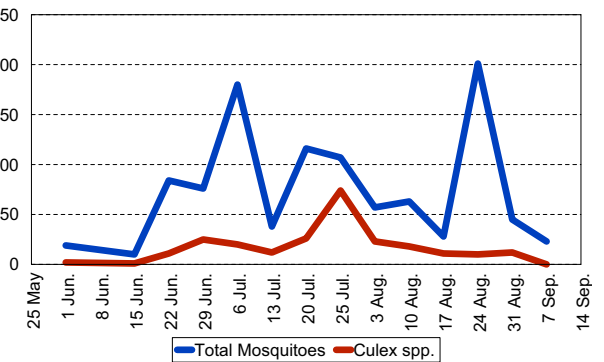
Season: 2007
 Trap Type: Light/CO₂
 Location: Superior, along Coal Creek at
 3rd Avenue and Charles Street
 GPS: N39° 57.131', W105° 10.147'

Total number of trap/nights set: 14
 Total number of mosquitoes collected: 1,047
 Average mosquitoes per trap/night: 75

Species collected:
Aedes vexans
Aedes (Oc.) dorsalis
Aedes (Oc.) hendersoni
Aedes (Oc.) inorepitus
Aedes (Oc.) melaninon
Aedes (Oc.) sticticus
Aedes (Oc.) trivittatus
Culex pipiens
Culex tarsalis
Culiseta incidens
Culiseta inornata

Species abundance:

Species	Number	Percent of Total
<i>Aedes vexans</i>	609	58.2%
Other <i>Aedes/Ochlerotatus</i>	175	16.7%
<i>Culex tarsalis</i>	219	20.9%
Other <i>Culex</i>	26	2.5%
<i>Culiseta spp.</i>	18	1.7%





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