

Zoonotic Disease Report August 28th – September 3rd (Week 35)

EXECUTIVE SUMMARY:

- This is the final week for sentinel zone trapping.
- Two human West Nile cases have been reported statewide in Boulder and Denver counties.
- Colorado has had 47 mosquito pools test positive (Adams (3), Alamosa (2), Boulder (7), Delta (5), Jefferson (1), Larimer (5), Las Animas (1), Logan (1), Mesa (3), Montrose (1), Otero (5), Prowers (1), Pueblo (1), Rio Grande (2) & Weld (9))
- Nationally WNV has been detected in 32 states. The CDC reports 104 human cases in 23 states. Four deaths have been attributed to WNV in Florida (1), Michigan (1), Mississippi (1), and Texas (1).
- While mosquito counts continue to decrease, total mosquito and *Culex* counts remain above average.
- One hoary bat tested positive for rabies out of six bats submitted.
- One squirrel was submitted for testing for plague/tularemia. Results are pending and data is not included in this report.

PROFILE OF COMMON ZOOONOTIC DISEASES IN BOULDER COUNTY

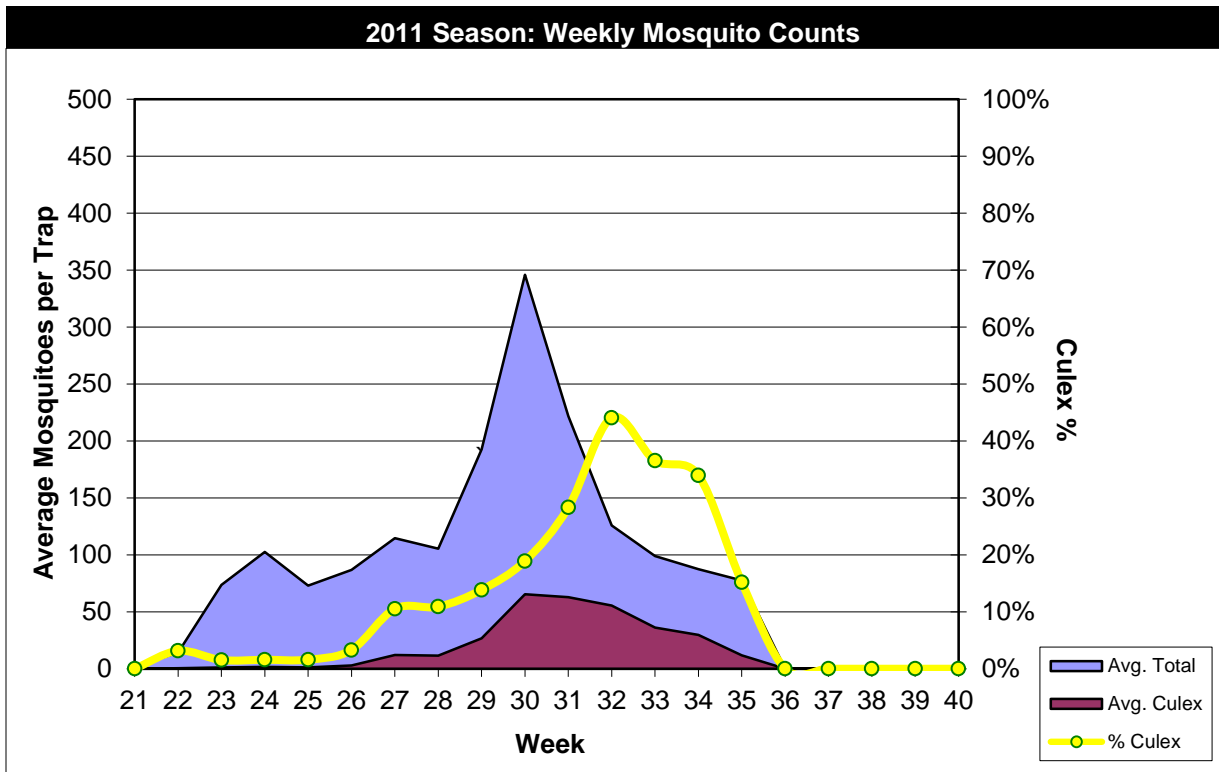


Disease	Symptoms	Vector	Prevention
WEST NILE VIRUS	Fever, extreme fatigue, head and body aches, skin rashes. More severe symptoms can be meningitis, encephalitis, tremors, vision loss, and paralysis	Mosquitoes, primarily <i>Culex tarsalis</i> and <i>Culex pipiens</i> mosquitoes in Colorado	Dress in long clothes, drain standing water, use DEET, avoid outdoors during dusk/dawn
HANTA VIRUS	Fever, chills, headache, muscle pain in shoulders, lower back, and thighs, nausea, vomiting, diarrhea, dizziness	deer mouse, spread by inhalation of dried droppings	Prevent rodent infestation, avoid aerosoling rodent droppings when cleaning, moisten rodent droppings with water and bleach, ventilate cleaning area
PLAGUE	Fever, chills, headache, rapidly progressive weakness, painful swollen regional lymph nodes (buboes)	flea bites, usually roosting on infected animals	Avoid fleas and areas with wild rodents, do not touch sick or dead wild animals, prevent home rodent infestations, treat known rodent areas with flea powder, see healthcare provider if you show symptoms
TULAREMIA	abrupt onset of fever, chills, muscle aches, headache, painful lesion at infection site, swollen lymph nodes	wild mammals, primarily rabbits, muskrats	wear gloves when handling wild rabbit carcasses, cook game meat thoroughly
RABIES	Apprehension, headache, fever, anxiety, difficulty swallowing, seizures and possible paralysis	All mammals, Bats, raccoons, skunks, foxes, and coyotes most common	vaccinate pets, avoid wildlife, contact healthcare provider if bitten by an animal

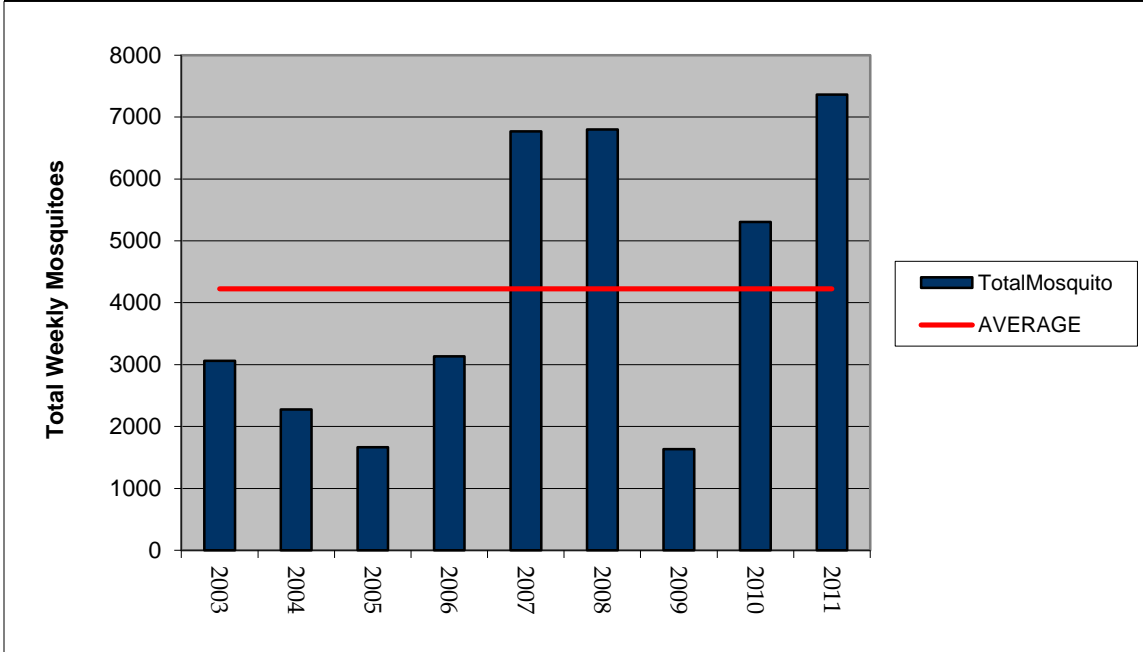
For more information, visit our website at www.bouldercountyvector.org

Mosquito Season Monitoring

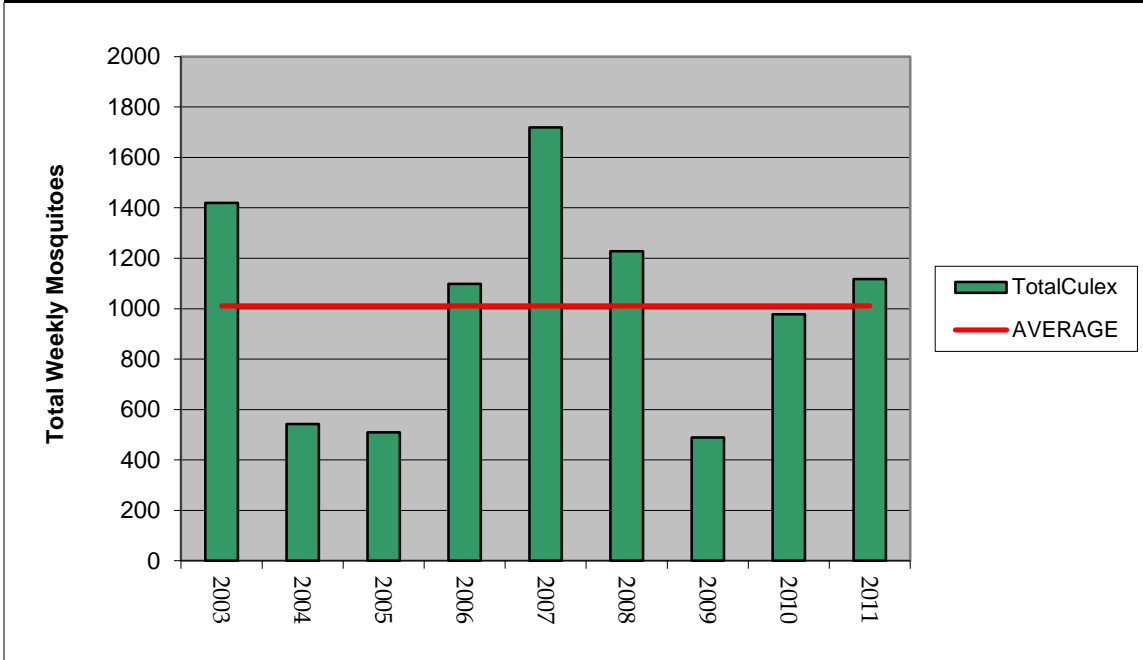
Season weeks will be reported as the epidemiological or ‘CDC week’ of the current year. The first full week following January 1st coincides with Week 1, and so the mosquito monitoring season roughly spans weeks 21 to 40. Here are the indicators for this week:



Total Mosquitoes: Weekly Comparison By Year
Week 35



Total Culex: Weekly Comparison By Year
Week 35





BOULDER COUNTY PUBLIC HEALTH
Environmental Health Division
 3450 Broadway
 Boulder, CO 80304
 303.441.1564
www.bouldercountyvector.org

WNV Vector Index

The vector index is a weekly measure of infection rate, adjusted for *Culex* mosquito population size, within a given area. The values estimate the number of West Nile Virus infected mosquitoes collected at a given trap site on any given night. It is used to estimate human West Nile Virus transmission risk. The data on vector index as a predictor of human transmission is incomplete, but it suggests that a vector index of 0.75 or above is an indicator of high risk for West Nile Virus transmission to humans in Boulder County, and influences the Mosquito Control District’s adult mosquito emergency control measures. A vector index is calculated for three monitoring zones in Boulder County as indicated on the map on the following page.

NOTE: Results are pending for all zones this week.

VECTOR INDEX LOG			
	ZONE 1	ZONE 2	ZONE 3
Season Week	Vector Index	Vector Index	Vector Index
Week 21	0.00	0.00	0.00
Week 22	0.00	0.00	0.00
Week 23	0.00	0.00	0.00
Week 24	0.00	0.00	0.00
Week 25	0.00	0.00	0.00
Week 26	0.00	0.00	0.00
Week 27	0.00	0.00	0.00
Week 28	0.00	0.00	0.00
Week 29	0.00	0.00	0.00
Week 30	0.00	0.00	0.00
Week 31	0.00	0.00	0.19
Week 32	0.20	0.00	0.00
Week 33	0.41	0.00	0.00
Week 34	0.00	0.20	0.33
Week 35	Pending	Pending	Pending
Week 36			
Week 37			
Week 38			
Week 39			
Week 40			



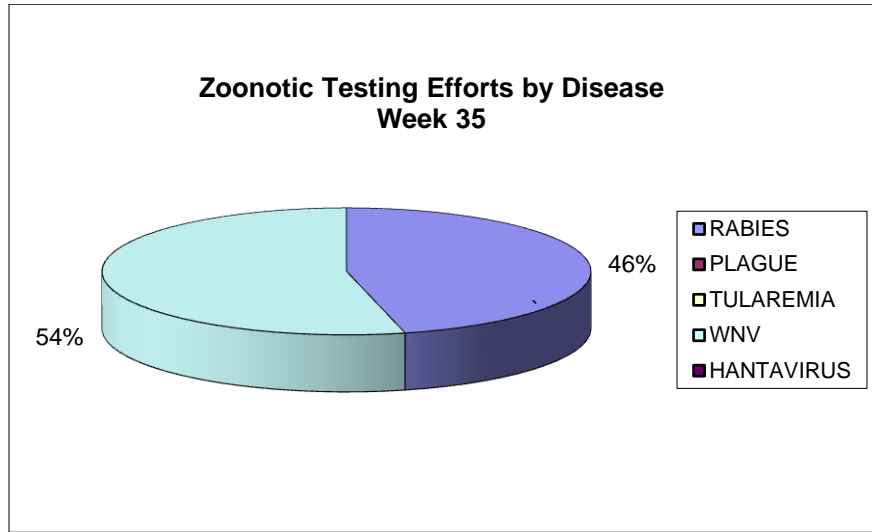
BOULDER COUNTY PUBLIC HEALTH
Environmental Health Division
3450 Broadway
Boulder, CO 80304
303.441.1564
www.bouldercountyvector.org

Animal Zoonotic Disease Testing and Confirmations

Each week, Boulder County and municipal Animal Control Units responds to animal complaints throughout the county. When deemed necessary, these specimens are sent to state laboratories for zoonotic disease testing. Below is a summary of these testing:

❖ **NOTE: Data are provided from the CDPHE Zoonotic Database and may not include samples submitted for testing prior to publishing of this report.**

TESTED VECTORS							POSITIVE VECTORS					
	RABIES	PLAGUE	TULAREMIA	WNV POOLS	HANTA VIRUS	TOTAL	RABIES+	PLAGUE+	TULAREMIA+	WNV POOLS+	HANTA VIRUS+	TOTAL
Wk 1-20	13	0	0	0	0	13	0	0	0	0	0	0
Wk21	2	1	1	0	0	4	0	1	0	0	0	1
Wk22	3	2	2	0	0	7	0	1	0	0	0	1
Wk23	7	0	0	0	0	7	3	0	0	0	0	3
Wk24	6	0	0	3	0	9	2	0	0	0	0	2
Wk25	7	3	3	2	0	15	2	1	0	0	0	3
Wk26	3	0	0	4	0	7	0	0	0	0	0	0
Wk27	6	1	1	9	0	17	0	0	0	0	0	0
Wk28	9	0	0	10	0	19	0	0	0	0	0	0
Wk29	17	0	0	27	0	44	0	0	0	0	0	0
Wk30	16	0	0	50	0	66	0	0	0	0	0	0
Wk31	15	0	0	43	0	58	1	0	0	1	0	2
Wk32	9	0	0	21	0	30	0	0	0	1	0	0
Wk33	14	0	0	16	0	30	0	0	0	2	0	0
Wk34	20	0	0	13	0	33	3	0	0	3	0	5
Wk35	6	0	0	7	0	11	1	0	0	0	0	1
Wk36												
Wk37												
Wk38												
Wk39												
Wk40												
TOTAL TO DATE	153	7	7	205	0	370	12	3	0	7	0	18



SEASON-TO-DATE DISEASE TESTING BY SPECIES				
<i>Species</i>	Rabies	Plague	Tularemia	Hanta
Bat	142	0	0	0
Skunk	3	0	0	0
Raccoon	3	0	0	0
Squirrel	0	2	2	0
Cat	0	2	2	0
Flea	0	1	1	0
Dog	5	0	0	0
Prairie Dog	0	1	1	0
TOTALS	153	6	6	0

SEASON-TO-DATE DISEASE POSITIVES BY SPECIES				
<i>Species</i>	Rabies	Plague	Tularemia	Hanta
Bat	12	0	0	0
Skunk	0	0	0	0
Raccoon	0	0	0	0
Squirrel	0	2	0	0
Cat	0	1	0	0
Flea	0	0	0	0
Dog	0	0	0	0
Prairie Dog	0	0	0	0
TOTALS	10	0	0	0