

**Jefferson County Public Health
Zoonosis and West Nile Virus (WNV)
Newsletter # 5
August 29, 2013
ZONOSIS**

RABIES IN COLORADO

January 1 – August 23, 2013
Lab Confirmed Rabies Positive Animals

County	Bat	Skunk	Other Wildlife	Domestic	Total
Adams	3	3			6
Arapahoe	1				1
Archuleta	1				1
Bent		1			1
Boulder	9	8			17
Denver	4				4
Eagle	1				1
Elbert	1				1
El Paso	1	1	2 Fox		4
Grand	2				2
Gunnison	1				1
Jefferson	4				4
Larimer	5	34	4 Fox 3 Raccoon	1 Horse 1 Cat	48
Logan		14		1 Horse 1 Cat	16
La Plata	1				1
Mesa	1				1
Morgan	1	6			7
Otero	2	1			3
Phillips		5			5
Pueblo	4				4
Sedgwick		3			3
Washington		1		1 Cat	2
Weld	4	11		1 Horse 1 Cow	17
Yuma		3			3
Totals	46	91	9	7	153

RABIES IN EL PASO COUNTY

Since July 24, two fox and a skunk have tested positive for rabies on the western side of Colorado Springs. These represent the first cases of terrestrial rabies in El Paso County since 2011 and the first evidence of terrestrial rabies in the county west of Interstate 25. Preliminary sequencing of the N-gene at the CDPHE lab demonstrated these animals were not infected with the south-central skunk rabies variant, but more closely matched a virus variant associated with insectivorous bats. Genetic sequencing showed a 100% match of the virus from each animal

This finding is unique in that sustained transmission of a bat-variant rabies virus within a terrestrial species has only been documented a couple times in the U.S. Historically, it was believed that subtle differences in bat and terrestrial rabies virus variants would result in a dead end infection. That is, a fox might find and eat a rabid bat, become infected but not transmit the infection to other

foxes before it died. That had been the experience in Colorado over the past thirty years where six animals were infected with a bat strain virus and no subsequent spread was detected. However, incidents in Arizona and Oregon have shown the maintenance of a bat variant in a terrestrial population and the concern is this could be occurring in western El Paso County.

On July 24, 2013, El Paso County Public Health was notified of a fox testing positive for rabies. The fox was found "injured" by the roadside on July 20 and taken to Arapahoe County by a concerned citizen to nurse it back to health. It was subsequently seen by a Jefferson County veterinarian who immediately euthanized it and sent it in for rabies testing. Investigation determined that there had been no human or pet exposure, although the citizen did elect to start rabies post-exposure prophylaxis (PEP). Two weeks later in the same neighborhood (< ½ mile away) the second fox attacked a dog and bit the owner who intervened. The fox tested positive for rabies; the man received PEP. Five days later, within a half mile of where the two foxes had been identified, a rabies positive skunk was found dead. There was no recognized human or animal exposure to the skunk.

RABIES IN JEFFERSON COUNTY

JCPH has tested 112 animals for rabies so far this year that include 40 bats, 12 skunks, and 18 raccoons with four bats testing positive for rabies. The migration of skunk rabies into Jefferson County is always a concern so JCPH strongly encourages everyone to have their domestic pets (dogs, cats, and ferrets) and valuable livestock vaccinated for rabies. Everyone should check their home to make sure all windows and doors have screens that are in good condition. During the summer months screen your fireplace chimney as well to prevent the entry of bats and other wildlife.

- Do not touch, feed, or handle wild animals.
- Teach children to leave wildlife alone.
- Do not leave pet food or livestock feed in areas accessible to wildlife.
- Maintain control of your pets at all times by keeping cats indoors and keeping dogs under direct supervision.
- Spay or neuter your pets to reduce the number of unwanted or stray animals in your community.
- Call your local animal control office to remove stray animals from your neighborhood or Jefferson County Animal Control at 303 271 5070.
- Call the Colorado Division of Wildlife at (303) 297 1192 if you have problems with wild animals or encounter injured wildlife.

WNV

WNV NATIONAL

Outside of Colorado, the Centers for Disease Control (CDC) and United States Geological Survey (USGS) have posted 346 human cases of WNV: Alabama (3), Arizona (9), Arkansas (2), California (87), Florida (1), Georgia (2), Idaho (6), Illinois (1), Indiana (1), Iowa (3), Kansas (2), Louisiana (10), Michigan (5), Minnesota (26), Mississippi (19), Nebraska (19), Nevada (7), New Jersey (2), New Mexico (3), New York (2), North Dakota (30), Ohio (3), Oklahoma (2), Oregon (1), Pennsylvania (3), South Dakota (61), Tennessee (4), Texas (20), Utah (1), Vermont (1), Washington (1), Wisconsin (2), and Wyoming (7):

For updates during the WNV season visit the CDC and USGS websites at

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>

http://diseasemaps.usgs.gov/wnv_us_human.html

WNV COLORADO

First Death from West Nile Virus (WNV) in Colorado, and WNV Surveillance Update

Weld County reported the first death from West Nile virus (WNV) in Colorado on August 27, 2013. Though less than 1% of people infected with WNV develop neuroinvasive disease (encephalitis, meningitis, and/or acute flaccid paralysis), they are more often recognized and diagnosed due to the severity of their disease. The fatality rate for these patients is ~10%. Those older than 65 years of age are at increased risk of developing neuroinvasive WNV disease.

Continue rain and higher humidity in Colorado will encourage West Nile virus activity, though mosquito populations will naturally decrease into the autumn. There is still risk to humans from the bites of WNV infected mosquitoes, and local health departments are continuing their programs of education and encouraging citizens to protect themselves from WNV disease by implementing personal protective measures listed below.

As of August 26, 2013 the CDPHE is reporting 72 human cases from the following counties: Adams (6), Boulder (7), Broomfield (2), Delta County (6), Denver (1), Larimer (39), Montezuma (1), Prowers (1), and Weld (7).

There have been 2062 mosquito pools submitted from throughout the state and there have been positive WNV pools from the following counties. Adams (12), Arapahoe (2), Boulder (60), Delta (5), Garfield (4), Jefferson (4), Larimer (177), Mesa (32), Morgan (7), Prowers (2), Pueblo (2), and Weld (64).

WNV JEFFERSON COUNTY

Jefferson County has had four positive mosquito pools for WNV and there are no verified reports of human cases in Jefferson County at this time.

Since 2011, any standing water that has the potential to breed mosquitoes is the responsibility of the property owner, meaning they must provide all WNV monitoring and control activities on their property. This applies to all cities, parks, special districts, and private property in the county. Because Jefferson County will not be conducting mosquito larval surveillance or control during the 2013 season JCPH strongly encourages everyone to follow the 4 "Ds" listed below:

- **Always use DEET** insect repellent for outdoor activities (even out to get the mail or work in your garden). Additional insect repellents available are **Picaridin and Oil of Lemon Eucalyptus**, (Always follow the Label Directions Carefully).
- **At Dawn and Dusk** - outdoor activities should be limited, because these are the times when mosquitoes are most active.
- **Dress** in long sleeves and pants when outdoors and be sure to cover feet and ankles if you have outdoor activities to reduce the amount of exposed skin.
- **DRAIN and EMPTY** all containers (toys, kiddie pools, flowerpots, buckets) in your yards because mosquitoes carrying WNV can bite at anytime and anywhere, even in your own yards. Make sure your gutters and downspouts are clean and running freely.
- Check your home to make sure all windows and doors have screens that are in good condition. This will reduce the chance of mosquitoes and bats gaining entry into your home.
- For additional information from repellents to how to protect you and your family around home go to <http://jeffco.us/public-health/healthy-environments/animal-borne-disease/> and go to West Nile Virus.

For Information on other Zoonosis concerns visit our web site listed above or contact David Volkel at dvolkel@jeffco.us or 303-271-5730.