

## California Arbovirus Surveillance Bulletin #15

Week 23 Friday, June 12, 2015



### Weekly Update

#### **Humans**

No human infections have been reported in 2015.

#### **Dead Birds**

Eight West Nile virus (WNV) positive dead birds were reported this week from the following five counties: Marin (1), Sacramento (1), San Diego (3), Santa Clara (1) and Stanislaus (2). **This is the first detection of WNV activity in Marin and Sacramento counties this year.** In 2015, 58 birds have tested positive for WNV from ten counties. At this time last year, 74 WNV positive birds had been detected in 11 counties.

#### **Mosquito Pools**

A total of 18 WNV positive mosquito pools were reported this week from the following six counties: Fresno (1), Kern (1), Orange (1), Riverside (8), Tulare (6), and Yolo (1). **This is the first detection of WNV activity in Fresno, Kern, and Yolo counties this year.** In 2015, 84 WNV positive mosquito pools have been reported from 10 counties. At this time last year, 37 WNV positive mosquito pools had been detected from 10 counties.

#### **Sentinel Chickens**

One WNV seroconversion was reported this week from a flock located in Placer County. **This is the first WNV positive chicken detected in California this year, and the first detection of WNV activity in Placer County in 2015.** At this time last year, one WNV seroconversion had been reported from one county (Los Angeles).

2014 & 2015 YTD West Nile Virus Comparisons		
	2014	2015
Total # Dead Bird Reports	2,958	3,847
# Positive Counties	13	19
# Human Cases	0	0
# Positive Dead Birds / # Tested	74 / 501	61 / 797
# Positive Mosquito Pools / # Tested	37 / 5,036	84 / 7,449
# Seroconversions / # Tested	1 / 3,859	1 / 3,749

Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westmile.ca.gov](http://www.westmile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westmilemaps.usgs.gov](http://www.westmilemaps.usgs.gov)

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<b>YTD Activity by Element and County, 2015</b>				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda		2		
Fresno			1	
Kern			1	
Kings			4	
Los Angeles			2	
Marin		1		
Orange			4	
Placer				1
Riverside		2	24	
Sacramento		1		
San Diego		31	2	
San Mateo		2		
Santa Barbara			1	
Santa Clara		15		
Solano		1		
Sonoma		2		
Stanislaus		3		
Tulare		1	44	
Yolo			1	
<b>Totals</b>	<b>0</b>	<b>61</b>	<b>84</b>	<b>1</b>

### TESTING SUMMARIES

#### Humans

		WNV	SLE	WEE
<b>Human Cases</b>	Week	0	0	0
	YTD	0	0	0

#### Dead Birds

		Number Tested	WNV Positive
<b>Dead Birds</b>	Week	58	8
	YTD	797	61

#### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
<b>Chicken Sera</b>	Week	704	1	0	0
	YTD	3,749	1	0	0
<b>Mosquito Pools</b>	Week	1,197	18	0	0
	YTD	7,449	84	0	0

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### NEW POSITIVES

#### Dead Birds

County	Agency	City	Zip	Species	Reported	Virus
Marin	Marin-Sonoma MVCD	Novato	94949	American Crow	6/9/2015	WNV
Sacramento	Sacramento-Yolo MVCD	Isleton	95641	American Crow	6/8/2015	WNV
San Diego	San Diego Co VCP	Lemon Grove	91945	American Crow	6/3/2015	WNV
San Diego	San Diego Co VCP	Oceanside	92054	American Crow	6/8/2015	WNV
San Diego	San Diego Co VCP	San Diego	92101	American Crow	6/2/2015	WNV
Santa Clara	Santa Clara Co VCD	Cupertino	95014	American Crow	6/3/2015	WNV
Stanislaus	Turlock MAD	Modesto	95356	American Crow	6/7/2015	WNV
Stanislaus	Turlock MAD	Modesto	95356	Western Scrub-Jay	6/9/2015	WNV

#### Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL6124	295	Cx. quinquefasciatus	Riverdale	50	GRVD	6/9/2015	WNV
Kern	KERN121	87	Cx. quinquefasciatus	Bakersfield	50	GRVD	6/4/2015	WNV
Orange	ORCO1020	1238	Cx. quinquefasciatus	Seal Beach	40	GRVD	6/3/2015	WNV
Riverside	COAV3112	1599	Cx. quinquefasciatus	Indio	50	GRVD	6/9/2015	WNV
Riverside	COAV3112	1604	Cx. quinquefasciatus	Indio	50	GRVD	6/9/2015	WNV
Riverside	COAV3112	1606	Cx. quinquefasciatus	Indio	15	CO2	6/9/2015	WNV
Riverside	COAV3112	1609	Cx. quinquefasciatus	Indio	14	CO2	6/9/2015	WNV
Riverside	COAV3112	1672	Cx. quinquefasciatus	Indio	50	GRVD	6/11/2015	WNV
Riverside	COAV3112	1673	Cx. quinquefasciatus	Indio	50	GRVD	6/11/2015	WNV
Riverside	COAV3112	1674	Cx. quinquefasciatus	Indio	32	GRVD	6/11/2015	WNV
Riverside	COAV3112	1675	Cx. quinquefasciatus	Indio	21	GRVD	6/11/2015	WNV
Tulare	DLTA8529	306	Cx. quinquefasciatus	Visalia	40	GRVD	6/9/2015	WNV
Tulare	DLTA8529	329	Cx. quinquefasciatus	Visalia	50	GRVD	6/11/2015	WNV
Tulare	DLTA8530	305	Cx. quinquefasciatus	Visalia	34	GRVD	6/9/2015	WNV
Tulare	DLTA9401	318	Cx. quinquefasciatus	Visalia	22	GRVD	6/10/2015	WNV
Tulare	DLTA9401	319	Cx. quinquefasciatus	Visalia	32	GRVD	6/10/2015	WNV
Tulare	DLTA9505	314	Cx. quinquefasciatus	Visalia	12	GRVD	6/9/2015	WNV
Yolo	SAYO136010	981	Cx. pipiens	Woodland	45	CO2	6/11/2015	WNV

#### Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01
Placer	PLCR0756	Roseville	6/4/2015	WNV	2682

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### Test Protocols

#### **Humans:**

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation.

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#### **Dead Birds**

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

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#### **Sentinel Chickens:**

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

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#### **Mosquito Pools:**

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.

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