

## California Arbovirus Surveillance Bulletin #17

Week 25 Friday, June 26, 2015



### Weekly Update

#### Humans

No human infections have been reported in 2015. At this time last year, one human case of West Nile virus (WNV) had been reported from Contra Costa County.

#### Dead Birds

A total of 24 WNV positive dead birds were reported this week from the following 14 counties: Butte (1), El Dorado (1), Glenn (1), Los Angeles (1), Madera (1), Orange (1), Sacramento (2), San Diego (1), San Joaquin (1), Santa Clara (6), Shasta (1), Stanislaus (1), Sutter (2), and Tulare (4). **This is the first detection of WNV activity in Butte, El Dorado, Glenn, Madera, San Joaquin, and Sutter counties this year.** In 2015, 101 birds have tested positive for WNV from 23 counties. At this time last year, 196 WNV positive birds had been detected in 17 counties.

#### Mosquito Pools

A total of 61 WNV positive mosquito pools were reported this week from the following 13 counties: Butte (1), Fresno (1), Kern (3), Kings (2), Merced (1), Riverside (28), Sacramento (1), San Bernardino (1), San Joaquin (3), Shasta (1), Tulare (16), Yolo (1), and Yuba (2). **This is the first detection of WNV activity in Merced and San Bernardino counties this year.** In 2015, 180 WNV positive mosquito pools have been reported from 18 counties. At this time last year, 123 WNV positive mosquito pools had been detected from 18 counties.

#### Sentinel Chickens

Two new WNV seroconversions were reported this week from Placer and Shasta counties. **This is the first WNV positive chicken detected in Shasta County this year.** In 2015, three WNV positive chickens have been reported from two counties. 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	3,909	4,460
# Positive Counties	21	31
# Human Cases	1	0
# Positive Dead Birds / # Tested	196 / 756	101 / 1,027
# Positive Mosquito Pools / # Tested	123 / 7,078	180 / 9,914
# Seroconversions / # Tested	1 / 5,028	3 / 4,606

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		
Butte		1	1	
Contra Costa			2	
El Dorado		1		
Fresno			3	
Glenn		1		
Kern			7	
Kings			6	
Los Angeles		2	2	
Madera		1		
Marin		1		
Merced			1	
Orange		1	3	
Placer				2
Riverside		4	56	
Sacramento		5	1	
San Bernardino			1	
San Diego		33	3	
San Joaquin		1	3	
San Mateo		3		
Santa Barbara			1	
Santa Clara		21		
Shasta		2	1	1
Solano		1		
Sonoma		2		
Stanislaus		4		
Sutter		2		
Tulare		8	83	
Ventura		1		
Yolo		3	3	
Yuba		1	3	
<b>Totals</b>	<b>0</b>	<b>101</b>	<b>180</b>	<b>3</b>

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## TESTING SUMMARIES

### Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	0	0	0

### Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	104	24
	YTD	1,027	101

### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	504	2	0	0
	YTD	4,606	3	0	0
Mosquito Pools	Week	1,210	61	0	0
	YTD	9,914	180	0	0

## NEW POSITIVES

### Dead Birds

County	Agency	City	Zip	Species	Reported	Virus
Butte	Butte Co MVCD	Chico	95928	Hawk	6/23/2015	WNV
El Dorado	El Dorado Co Env Management	El Dorado Hills	95762	Western Scrub-Jay	6/15/2015	WNV
Glenn	Glenn Co MVCD	Willows	95988	American Crow	6/17/2015	WNV
Los Angeles	San Gabriel Valley MVCD	Covina	91724	House Finch	6/10/2015	WNV
Madera	Madera Co MVCD	Madera	93636	Unknown	6/11/2015	WNV
Orange	Orange Co VCD	Orange	92869	American Crow	6/22/2015	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95842	American Crow	6/22/2015	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95842	American Crow	6/22/2015	WNV
San Diego	San Diego Co VCP	Oceanside	92057	American Crow	6/17/2015	WNV
San Joaquin	San Joaquin Co MVCD	Manteca	95336	Western Scrub-Jay	6/18/2015	WNV
Santa Clara	Santa Clara Co VCD	Cupertino	95014	American Crow	6/17/2015	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94043	American Crow	6/19/2015	WNV
Santa Clara	Santa Clara Co VCD	Palo Alto	94301	American Crow	6/19/2015	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95117	American Crow	6/19/2015	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95132	American Crow	6/19/2015	WNV
Santa Clara	Santa Clara Co VCD	Santa Clara	95051	American Crow	6/18/2015	WNV
Shasta	Shasta MVCD	Palo Cedro	96073	Western Scrub-Jay	6/23/2015	WNV

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Stanislaus	East Side MAD	Modesto	95356	Western Scrub-Jay	6/14/2015	WNV
Sutter	Sutter-Yuba MVCD	Sutter	95982	American Crow	6/22/2015	WNV
Sutter	Sutter-Yuba MVCD	Sutter	95982	Western Scrub-Jay	6/22/2015	WNV
Tulare	Delta VCD	Visalia	93277	American Crow	6/18/2015	WNV
Tulare	Delta VCD	Visalia	93277	American Crow	6/22/2015	WNV
Tulare	Delta VCD	Visalia	93277	American Crow	6/22/2015	WNV
Tulare	Delta VCD	Visalia	93292	American Crow	6/23/2015	WNV

### Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO0000	91	Unknown	Oroville	50		6/25/2015	WNV
Fresno	CNSL4099	320	Cx. quinquefasciatus	Selma	50	GRVD	6/19/2015	WNV
Kern	KERN15	162	Cx. quinquefasciatus	Bakersfield	50	CO2	6/18/2015	WNV
Kern	KERN2007	171	Cx. quinquefasciatus	Bakersfield	42	GRVD	6/19/2015	WNV
Kern	KERN3017	157	Cx. quinquefasciatus	Bakersfield	37	CO2	6/17/2015	WNV
Kings	KNGS3005	108	Cx. tarsalis	Lemoore NAS	25	CO2	6/16/2015	WNV
Kings	KNGS5516	122	Cx. pipiens	Hanford	50	CO2	6/19/2015	WNV
Merced	MERC28	67	Cx. pipiens	Merced	50	CO2	6/25/2015	WNV
Riverside	COAV3111	1802	Cx. quinquefasciatus	Indio	50	GRVD	6/19/2015	WNV
Riverside	COAV3111	1807	Cx. quinquefasciatus	Indio	50	CO2	6/19/2015	WNV
Riverside	COAV3111	1808	Cx. quinquefasciatus	Indio	50	CO2	6/19/2015	WNV
Riverside	COAV3111	1809	Cx. quinquefasciatus	Indio	50	CO2	6/19/2015	WNV
Riverside	COAV3111	1878	Cx. quinquefasciatus	Indio	32	GRVD	6/25/2015	WNV
Riverside	COAV3112	1791	Cx. quinquefasciatus	Indio	50	GRVD	6/19/2015	WNV
Riverside	COAV3112	1794	Cx. quinquefasciatus	Indio	9	GRVD	6/19/2015	WNV
Riverside	COAV3112	1806	Cx. quinquefasciatus	Indio	13	GRVD	6/19/2015	WNV
Riverside	COAV3112	1877	Cx. quinquefasciatus	Indio	32	CO2	6/25/2015	WNV
Riverside	COAV3112	1879	Cx. quinquefasciatus	Indio	21	CO2	6/25/2015	WNV
Riverside	COAV3112	1884	Cx. quinquefasciatus	Indio	50	GRVD	6/25/2015	WNV
Riverside	COAV3113	1799	Cx. quinquefasciatus	La Quinta	43	CO2	6/19/2015	WNV
Riverside	COAV3113	1801	Cx. quinquefasciatus	La Quinta	43	CO2	6/19/2015	WNV
Riverside	COAV3113	1805	Cx. quinquefasciatus	La Quinta	14	GRVD	6/19/2015	WNV
Riverside	COAV3113	1811	Cx. quinquefasciatus	La Quinta	50	GRVD	6/19/2015	WNV
Riverside	COAV3113	1812	Cx. quinquefasciatus	La Quinta	50	CO2	6/19/2015	WNV
Riverside	COAV3113	1814	Cx. quinquefasciatus	La Quinta	50	CO2	6/19/2015	WNV
Riverside	COAV3113	1815	Cx. quinquefasciatus	La Quinta	50	CO2	6/19/2015	WNV
Riverside	COAV3113	1874	Cx. quinquefasciatus	La Quinta	40	GRVD	6/25/2015	WNV
Riverside	COAV3113	1881	Cx. quinquefasciatus	La Quinta	50	CO2	6/25/2015	WNV
Riverside	COAV3113	1882	Cx. quinquefasciatus	La Quinta	50	CO2	6/25/2015	WNV
Riverside	COAV3113	1883	Cx. quinquefasciatus	La Quinta	50	CO2	6/25/2015	WNV
Riverside	COAV3113	1886	Cx. quinquefasciatus	La Quinta	50	GRVD	6/25/2015	WNV
Riverside	COAV3113	1887	Cx. quinquefasciatus	La Quinta	50	GRVD	6/25/2015	WNV
Riverside	COAV416	1830	Cx. quinquefasciatus	La Quinta	14	GRVD	6/23/2015	WNV
Riverside	COAV416	1831	Cx. quinquefasciatus	La Quinta	49	CO2	6/23/2015	WNV
Riverside	COAV418	1908	Cx. quinquefasciatus	Indian Wells	20	GRVD	6/25/2015	WNV

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Riverside	COAV421	1846	Cx. quinquefasciatus	Indio	16	GRVD	6/23/2015	WNV
Sacramento	SAYO232012	1322	Cx. pipiens	Elk Grove	34	GRVD	6/23/2015	WNV
San Bernardino	SANB43	211	Cx. quinquefasciatus	Rialto	50	CO2	6/16/2015	WNV
San Joaquin	SJCM8021	736	Cx. pipiens	Lodi	14	CO2	6/23/2015	WNV
San Joaquin	SJCM8027	770	Cx. tarsalis	McDonald Isl. bridge	50	CO2	6/23/2015	WNV
San Joaquin	SJCM8143	746	Cx. tarsalis	Stockton	50	CO2	6/23/2015	WNV
Shasta	SHAS10140	130	Culex pipiens		16	CO2	6/23/2015	WNV
Tulare	DLTA8413	415	Cx. quinquefasciatus	Visalia	35	GRVD	6/23/2015	WNV
Tulare	DLTA8423	417	Cx. quinquefasciatus	Visalia	50	GRVD	6/23/2015	WNV
Tulare	DLTA8424	416	Cx. quinquefasciatus	Visalia	22	GRVD	6/23/2015	WNV
Tulare	DLTA8426	406	Cx. quinquefasciatus	Visalia	37	GRVD	6/19/2015	WNV
Tulare	DLTA8426	408	Cx. quinquefasciatus	Visalia	18	GRVD	6/19/2015	WNV
Tulare	DLTA8426	409	Cx. quinquefasciatus	Visalia	16	GRVD	6/19/2015	WNV
Tulare	DLTA8426	410	Cx. quinquefasciatus	Visalia	25	GRVD	6/19/2015	WNV
Tulare	DLTA8427	419	Cx. quinquefasciatus	Visalia	13	GRVD	6/23/2015	WNV
Tulare	DLTA8434	403	Cx. quinquefasciatus	Visalia	14	GRVD	6/19/2015	WNV
Tulare	DLTA8435	405	Cx. quinquefasciatus	Visalia	36	GRVD	6/19/2015	WNV
Tulare	DLTA8435	412	Cx. quinquefasciatus	Visalia	24	GRVD	6/19/2015	WNV
Tulare	DLTA8520	395	Cx. quinquefasciatus	Visalia	50	GRVD	6/19/2015	WNV
Tulare	DLTA8528	400	Cx. quinquefasciatus	Visalia	20	GRVD	6/19/2015	WNV
Tulare	DLTA9401	414	Cx. quinquefasciatus	Visalia	24	GRVD	6/19/2015	WNV
Tulare	DLTA9402	413	Cx. quinquefasciatus	Visalia	26	GRVD	6/19/2015	WNV
Tulare	TLRE25	19	Cx. quinquefasciatus	Tulare	12	CO2	6/17/2015	WNV
Yolo	SAYO145013	1270	Cx. pipiens	Davis	7	GRVD	6/24/2015	WNV
Yuba	SUYA37	95	Cx. tarsalis	Marysville	50	CO2	6/22/2015	WNV
Yuba	SUYA40	71	Cx. tarsalis	Marysville (Linda)	44	REST	6/22/2015	WNV

### Chickens

County	Site Code	City	Date Bled	Virus	Band 01
Placer	PLCR0756	Roseville	6/16/2015	WNV	2681
Shasta	SHAS9704	Redding	6/18/2015	WNV	1584

## California Arbovirus Surveillance Bulletin #17

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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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