

California Arbovirus Surveillance Bulletin #15

Week 24 Friday, June 17, 2016



Weekly Update

Humans

No human cases have been reported in 2016.

Dead Birds

This week, a total of 73 dead birds tested positive for West Nile virus (WNV) from the following 11 counties: Contra Costa (1), Fresno (1), Los Angeles (2), Orange (1), Sacramento (42), San Diego (18), San Joaquin (1), Santa Clara (3), Stanislaus (2), Ventura (1), and Yolo (1). **These are the first detections of WNV in Contra Costa and Yolo counties this year. These are the first WNV positive birds reported from Fresno, San Joaquin, and Stanislaus counties this year.** In 2016, 191 dead birds have tested positive for WNV from 14 counties, whereas at this time last year, 77 WNV positive birds had been reported from 16 counties.

Mosquito Pools

West Nile virus

A total of 58 WNV positive mosquito pools were reported this week from the following 13 counties: Fresno (12), Kern (2), Kings (2), Los Angeles (2), Madera (2), Riverside (1), Sacramento (20), San Diego (2), San Joaquin (2), Santa Clara (3), Stanislaus (1), Sutter (3), and Tulare (6). To date this year, 185 WNV positive mosquito pools have been reported from 15 counties, whereas at this time last year, 120 WNV positive mosquito pools had been reported from 12 counties.

St. Louis encephalitis virus

A total of 4 mosquito pools tested positive for St. Louis encephalitis virus (SLEV) this week from Kern County. To date this year, 17 SLEV positive mosquito pools have been reported from Kern County.

Sentinel Chickens

This week, a total of 629 sentinel chicken blood samples were tested from 19 counties; 2 positives were detected in San Diego County. **These are the first WNV sentinel chicken seroconversions reported this year.** At this time last year, one WNV seroconversion had been reported from one county.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	4,136	3,166
# Positive Counties	23	19
# Human Cases	0	0
# Positive Dead Birds / # Tested	77 / 922	191 / 809
# Positive Mosquito Pools / # Tested	120 / 8,704	185 / 12,633
# Seroconversions / # Tested	1 / 4,102	2 / 2,617

California Arbovirus Surveillance Bulletin #15

Week 24 Friday, June 17, 2016

YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Contra Costa		1		
Fresno		1	19	
Kern			11	
Kings			3	
Los Angeles		14	9	
Madera		1	6	
Orange		6	4	
Riverside			10	
Sacramento		65	36	
San Bernardino			10	
San Diego		82	40	2
San Joaquin		1	9	
Santa Clara		14	4	
Solano		1		
Stanislaus		2	2	
Sutter		1	8	
Tulare			14	
Ventura		1		
Yolo		1		
Totals	0	191	185	2

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Number of Cases Reported	Week	0	0	0
	YTD	0	0	0

Dead Birds

		Total Tested	WNV Positive
Dead Birds	Week	168	73
	YTD	809	191

Sentinel Chickens

		Total Tested	WNV +	SLEV +	WEEV +
Chicken Sera	Week	629	2	0	0
	YTD	2,617	2	0	0

Mosquitoes

		Positive / Total Tested					
Mosquito Pools	Week	WNV	SLEV	WEEV	CHIK	DENV	ZIKA
		58 / 1,475	4 / 891	0 / 891	0 / 2	0 / 2	0 / 2
		YTD	185 / 12,633	17 / 7,277	0 / 7,277	0 / 9	0 / 9

California Arbovirus Surveillance Bulletin #15

Week 24 Friday, June 17, 2016

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Contra Costa	Contra Costa MVCD	Antioch	94531	American Crow	6/12/2016	WNV
Fresno	Fresno MVCD	Fresno	93704	Western Scrub-Jay	6/15/2016	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	West Hills	91307	American Crow	6/13/2016	WNV
Los Angeles	Los Angeles Co Veterinarian	Los Angeles	90045	American Crow	6/10/2016	WNV
Orange	Orange Co VCD	Mission Viejo	92691	American Crow	6/8/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	American Crow	6/10/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	American Crow	6/14/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	6/9/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	6/15/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Western Scrub-Jay	6/17/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Yellow-billed Magpie	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Carmichael	95608	Yellow-billed Magpie	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	6/12/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	Western Scrub-Jay	6/15/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95758	American Crow	6/6/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	Yellow-billed Magpie	6/10/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	Yellow-billed Magpie	6/14/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	Yellow-billed Magpie	6/15/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	American Crow	6/10/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	American Crow	6/12/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	American Crow	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	House Sparrow	6/14/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	Western Scrub-Jay	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95822	American Crow	6/14/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95825	American Crow	6/6/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95825	American Crow	6/15/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	6/15/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95826	American Crow	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95827	American Crow	6/7/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95827	American Crow	6/7/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95831	American Crow	6/8/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95834	House Finch	6/11/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95841	Western Scrub-Jay	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/6/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/8/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/8/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/8/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/9/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/9/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/10/2016	WNV

California Arbovirus Surveillance Bulletin #15
 Week 24 Friday, June 17, 2016

Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/13/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	6/16/2016	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	Yellow-billed Magpie	6/12/2016	WNV
San Diego	San Diego Co VCP	Del Mar	92014	American Crow	6/16/2016	WNV
San Diego	San Diego Co VCP	Encinitas	92024	American Crow	6/10/2016	WNV
San Diego	San Diego Co VCP	Escondido	92025	American Crow	6/10/2016	WNV
San Diego	San Diego Co VCP	Escondido	92027	American Crow	6/15/2016	WNV
San Diego	San Diego Co VCP	La Jolla	92037	American Crow	6/13/2016	WNV
San Diego	San Diego Co VCP	Oceanside	92058	American Crow	6/8/2016	WNV
San Diego	San Diego Co VCP	San Diego	92109	American Crow	6/15/2016	WNV
San Diego	San Diego Co VCP	San Diego	92109	American Crow	6/16/2016	WNV
San Diego	San Diego Co VCP	San Diego	92109	American Crow	6/16/2016	WNV
San Diego	San Diego Co VCP	San Diego	92117	American Crow	6/7/2016	WNV
San Diego	San Diego Co VCP	San Diego	92119	American Crow	6/13/2016	WNV
San Diego	San Diego Co VCP	San Diego	92120	American Crow	6/13/2016	WNV
San Diego	San Diego Co VCP	San Diego	92124	American Crow	6/10/2016	WNV
San Diego	San Diego Co VCP	San Diego	92124	American Crow	6/15/2016	WNV
San Diego	San Diego Co VCP	San Diego	92127	American Crow	6/13/2016	WNV
San Diego	San Diego Co VCP	San Diego	92129	American Crow	6/10/2016	WNV
San Diego	San Diego Co VCP	San Diego	92129	American Crow	6/16/2016	WNV
San Diego	San Diego Co VCP	San Diego	92131	American Crow	6/15/2016	WNV
San Joaquin	San Joaquin Co MVCD	Ripon	95366	House Finch	6/3/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95125	American Crow	6/13/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95128	American Crow	6/10/2016	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95136	American Crow	6/10/2016	WNV
Stanislaus	Turlock MAD	Ceres	95307	Sparrow	6/8/2016	WNV
Stanislaus	Turlock MAD	Turlock	95382	American Crow	6/6/2016	WNV
Ventura	Ventura Co Env Health Dept.	Simi Valley	93065	American Crow	5/31/2016	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95618	Western Scrub-Jay	6/14/2016	WNV

Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1319	183	Cx. quinquefasciatus	Clovis	50	GRVD	6/14/2016	WNV
Fresno	CNSL1873	188	Cx. quinquefasciatus	Clovis	50	GRVD	6/14/2016	WNV
Fresno	CNSL2065	186	Cx. quinquefasciatus	Sanger	18	GRVD	6/14/2016	WNV
Fresno	CNSL2065	185	Cx. restuans	Sanger	20	GRVD	6/14/2016	WNV
Fresno	CNSL2266	187	Cx. quinquefasciatus	Sanger	50	GRVD	6/14/2016	WNV
Fresno	CNSL2337	170	Cx. quinquefasciatus	Sanger	50	GRVD	6/9/2016	WNV
Fresno	CNSL4074	173	Cx. quinquefasciatus	Selma	43	GRVD	6/9/2016	WNV
Fresno	CNSL4152	171	Cx. quinquefasciatus	Fowler	42	GRVD	6/9/2016	WNV
Fresno	FRNO120	62	Cx. quinquefasciatus	Fresno	38	GRVD	6/15/2016	WNV
Fresno	FRNO8011	60	Cx. quinquefasciatus	Fresno	28	GRVD	6/14/2016	WNV
Fresno	FRWS500003	29	Cx. tarsalis	Mendota	50	CO2	6/3/2016	WNV
Fresno	FRWS5101	26	Cx. tarsalis	Mendota	49	CO2	6/14/2016	WNV
Kern	KERN2005	223	Cx. quinquefasciatus	Bakersfield	45	GRVD	6/7/2016	WNV
Kern	KERN2015	232	Cx. quinquefasciatus	Bakersfield	37	GRVD	6/9/2016	SLEV
Kern	KERN2031	237	Cx. quinquefasciatus	Bakersfield	32	GRVD	6/10/2016	SLEV
Kern	KERN2034	224	Cx. quinquefasciatus	Bakersfield	50	GRVD	6/7/2016	WNV

California Arbovirus Surveillance Bulletin #15

Week 24 Friday, June 17, 2016

Kern	KERN28	236	Cx. quinquefasciatus	Bakersfield	50	CO2	6/9/2016	SLEV
Kern	KERN3017	230	Cx. quinquefasciatus	Bakersfield	50	CO2	6/8/2016	SLEV
Kings	KNGS5510	28	Cx. pipiens	Hanford	21	BGSENT	6/8/2016	WNV
Kings	KNGS5512	21	Cx. tarsalis	Hanford	14	BGSENT	6/7/2016	WNV
Los Angeles	GRLA2030	5326	Cx. quinquefasciatus	West Hills	50	GRVD	6/9/2016	WNV
Los Angeles	GRLA2414	5307	Cx. quinquefasciatus	Granada Hills	50	GRVD	6/7/2016	WNV
Madera	MADR12	124	Cx. tarsalis	Madera	25	CO2	6/7/2016	WNV
Madera	MADR204	129	Cx. quinquefasciatus	Madera	25	CO2	6/10/2016	WNV
Riverside	NWST14	57	Cx. tarsalis	Corona	50	CO2	6/7/2016	WNV
Sacramento	SAYO203009	1343	Cx. pipiens	North Highlands	16	GRVD	6/14/2016	WNV
Sacramento	SAYO203039	1332	Cx. tarsalis	North Highlands	7	CO2	6/14/2016	WNV
Sacramento	SAYO203041	1364	Cx. pipiens	Sacramento	12	GRVD	6/14/2016	WNV
Sacramento	SAYO204027	1351	Cx. pipiens	Fair Oaks	3	CO2	6/14/2016	WNV
Sacramento	SAYO204027	1352	Cx. pipiens	Fair Oaks	18	GRVD	6/14/2016	WNV
Sacramento	SAYO213001	1292	Cx. pipiens	Sacramento	10	GRVD	6/14/2016	WNV
Sacramento	SAYO213002	1303	Cx. tarsalis	Sacramento	30	CO2	6/14/2016	WNV
Sacramento	SAYO213017	1286	Cx. pipiens	Sacramento	6	GRVD	6/14/2016	WNV
Sacramento	SAYO213028	1300	Cx. tarsalis	Carmichael	7	CO2	6/14/2016	WNV
Sacramento	SAYO213033	1451	Cx. pipiens	Sacramento	50	CO2	6/16/2016	WNV
Sacramento	SAYO213033	1453	Cx. pipiens	Sacramento	13	GRVD	6/16/2016	WNV
Sacramento	SAYO213035	1279	Cx. pipiens	Sacramento	42	CO2	6/14/2016	WNV
Sacramento	SAYO213046	1446	Cx. pipiens	Sacramento	14	GRVD	6/16/2016	WNV
Sacramento	SAYO213048	1294	Cx. pipiens	Sacramento	13	CO2	6/14/2016	WNV
Sacramento	SAYO213053	1288	Cx. pipiens	Carmichael	50	CO2	6/14/2016	WNV
Sacramento	SAYO213053	1289	Cx. pipiens	Carmichael	26	CO2	6/14/2016	WNV
Sacramento	SAYO213053	1468	Cx. pipiens	Carmichael	50	CO2	6/16/2016	WNV
Sacramento	SAYO213053	1469	Cx. pipiens	Carmichael	50	CO2	6/16/2016	WNV
Sacramento	SAYO213053	1467	Cx. tarsalis	Carmichael	20	CO2	6/16/2016	WNV
Sacramento	SAYO214031	1322	Cx. pipiens	Fair Oaks	6	GRVD	6/14/2016	WNV
San Diego	SAND10591	616	Cx. quinquefasciatus	San Diego	20	GRVD	6/2/2016	WNV
San Diego	SAND18	623	Cx. tarsalis	Del Mar	35	CO2	6/3/2016	WNV
San Joaquin	SJCM8076	738	Cx. pipiens	Stockton	7	CO2	6/14/2016	WNV
San Joaquin	SJCM8076	737	Cx. tarsalis	Stockton	11	CO2	6/14/2016	WNV
Santa Clara	STCL2493	80	Cx. pipiens	San Jose	28	CO2	6/14/2016	WNV
Santa Clara	STCL2497	70	Cx. pipiens	San Jose	22	CO2	6/14/2016	WNV
Santa Clara	STCL2822	68	Cx. pipiens	San Jose	20	CO2	6/14/2016	WNV
Stanislaus	TRLK424	269	Cx. tarsalis	Patterson	50	CO2	6/14/2016	WNV
Sutter	SUYA16	33	Cx. tarsalis	Pleasant Grove	50	REST	6/13/2016	WNV
Sutter	SUYA16	34	Cx. tarsalis	Pleasant Grove	50	REST	6/13/2016	WNV
Sutter	SUYA16	43	Cx. tarsalis	Pleasant Grove	50	REST	6/14/2016	WNV
Tulare	DLTA6407	1177	Cx. quinquefasciatus	Dinuba	45	GRVD	6/15/2016	WNV
Tulare	DLTA6416	1182	Cx. quinquefasciatus	Dinuba	45	GRVD	6/15/2016	WNV
Tulare	DLTA6417	1125	Cx. quinquefasciatus	Dinuba	57	GRVD	6/14/2016	WNV
Tulare	DLTA8533	1153	Cx. quinquefasciatus	Visalia	50	GRVD	6/14/2016	WNV
Tulare	DLTA8533	1227	Cx. quinquefasciatus	Visalia	48	GRVD	6/17/2016	WNV
Tulare	DLTA9402	1107	Cx. quinquefasciatus	Visalia	40	GRVD	6/14/2016	WNV

California Arbovirus Surveillance Bulletin #15

Week 24 Friday, June 17, 2016

Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band #
San Diego	SAND0057	Sorrento Valley	5/17/2016	WNV	1324
San Diego	SAND0057	Sorrento Valley	5/31/2016	WNV	1329

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.

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.

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.

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.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: tina.feiszli@cdph.ca.gov.

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov.
