

California Arbovirus Surveillance Bulletin #11

Week 26 Friday, June 26, 2020



Weekly Update

Humans

One human case of West Nile virus (WNV) illness was reported this week from Stanislaus County; this is the first WNV case reported in California in 2020. In addition, one asymptomatic WNV-positive blood donor was reported from Stanislaus County. At this time last year, no human WNV infections had been reported.

Dead Birds

A total of 9 WNV positive dead birds were reported this week from 3 counties: Los Angeles (1), Sacramento (6), and Stanislaus (2). **This is the first WNV positive dead bird from Los Angeles County this year.** In 2020, a total of 19 WNV positive dead birds have been reported from 7 counties. At this time last year, 13 WNV positive dead bird had been reported from 6 counties.

Mosquito Pools

West Nile virus

A total of 27 WNV positive mosquito pools were reported this week from 7 counties: Fresno (2), Los Angeles (9), Merced (1), Sacramento (1), San Joaquin (2), Stanislaus (11), and Tulare (1). **This is the first detection of WNV activity in Merced County this year.** In 2020, a total of 92 WNV positive pools have been reported from 10 counties. At this time last year, 351 WNV positive mosquito pools had been reported from 9 counties.

St. Louis encephalitis virus

A total of 2 St. Louis encephalitis virus (SLEV) positive mosquito pools were reported this week from 2 counties: Fresno (1) and Riverside (1). In 2020, a total of 40 SLEV positive mosquito pools have been reported from Fresno (3), Imperial (4), Kern (1), and Riverside (32) counties. At this time last year, 16 SLEV positive mosquito pools had been reported from 4 counties.

Sentinel Chickens

No seroconversions have been reported in 2020.

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2019 & 2020 YTD West Nile Virus Comparisons		
	2019	2020
Total # Dead Bird Reports	2,449	2,208
# Positive Counties	10	11
# Human Cases	0	1
# Positive Dead Birds / # Tested	13 / 709	19 / 473
# Positive Mosquito Pools / # Tested	351 / 13,425	92 / 11,541
# Seroconversions / # Tested	0 / 3,039	0 / 1,906

YTD WNV Activity by Element and County, 2020				
County	Humans*	Dead Birds	Mosquito Pools	Sentinel Chickens
Fresno		1	8	
Los Angeles		1	11	
Merced			1	
Napa		1		
Riverside			17	
Sacramento		7	2	
San Diego			1	
San Joaquin		1	3	
Santa Clara		5	6	
Stanislaus	1	3	36	
Tulare			7	
Totals	1	19	92	0

**Does not include asymptomatic infections*

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TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	1	0	0
	YTD	1	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	31	9
	YTD	473	19

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	310	0	0	0
	YTD	1,906	0	0	0

Mosquitoes

		Positive / Total Tested						
Mosquito Pools		WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	27 / 1,404	2 / 1,404	0 / 1,272	0 / 0	0 / 0	0 / 0
		YTD	92 / 11,541	40 / 11,457	0 / 10,890	0 / 84	0 / 84	0 / 84

NEW POSITIVES

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Los Angeles	91607	American Crow	6/4/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95624	California Scrub-Jay	6/23/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	American Crow	6/20/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	American Crow	6/20/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	Yellow-billed Magpie	6/18/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95820	American Crow	6/21/2020	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	Yellow-billed Magpie	6/20/2020	WNV
Stanislaus	Turlock MAD	Ceres	95307	Sparrow	6/21/2020	WNV
Stanislaus	Turlock MAD	Turlock	95380	Golden-Crowned Sparrow	6/21/2020	WNV

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Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Fresno	CNSL1906	614	Cx. quinquefasciatus	Fresno	50	GRVD	6/18/20	SLEV
Fresno	CNSL8047	245	Cx. quinquefasciatus	Fresno	44	GRVD	6/18/20	WNV
Fresno	CNSL8127	591	Cx. quinquefasciatus	Fresno	50	GRVD	6/16/20	WNV
Los Angeles	GRLA2007	5300	Cx. quinquefasciatus	Toluca Lake	50	GRVD	6/18/20	WNV
Los Angeles	GRLA2247	224	Cx. quinquefasciatus	Pico Rivera	50	GRVD	6/11/20	WNV
Los Angeles	GRLA2567	5290	Cx. quinquefasciatus	Woodland Hills	36	GRVD	6/17/20	WNV
Los Angeles	GRLA3038	5303	Cx. quinquefasciatus	Valley Village	50	GRVD	6/18/20	WNV
Los Angeles	GRLA3066	5306	Cx. quinquefasciatus	North Hollywood	50	GRVD	6/18/20	WNV
Los Angeles	GRLA3069	5304	Cx. quinquefasciatus	Valley Village	48	GRVD	6/18/20	WNV
Los Angeles	GRLA3076	5307	Cx. quinquefasciatus	Valley Glen	50	GRVD	6/18/20	WNV
Los Angeles	GRLA3080	5305	Cx. quinquefasciatus	North Hollywood	50	GRVD	6/18/20	WNV
Los Angeles	GRLA3102	5302	Cx. quinquefasciatus	Studio City	50	GRVD	6/18/20	WNV
Merced	MERC878651	159	Cx. pipiens	Merced	15	BGSENT	6/23/20	WNV
Riverside	COAV30	2779	Cx. tarsalis	Mecca	10	CO2	6/26/20	SLEV
Sacramento	SAYO223006	1609	Cx. pipiens	Sacramento	8	GRVD	6/23/20	WNV
San Joaquin	EAST2023	20154	Cx. pipiens	Modesto	38	GRVD	6/18/20	WNV
San Joaquin	SJCM8232	574	Cx. tarsalis	Oakdale	50	CO2	6/25/20	WNV
Stanislaus	EAST1025	20162	Cx. pipiens	Modesto	50	CO2	6/18/20	WNV
Stanislaus	EAST1088	20155	Cx. pipiens	Modesto	50	GRVD	6/18/20	WNV
Stanislaus	EAST1088	20156	Cx. pipiens	Modesto	50	GRVD	6/18/20	WNV
Stanislaus	EAST1088	20167	Cx. pipiens	Modesto	50	CO2	6/18/20	WNV
Stanislaus	EAST2002	20164	Cx. pipiens	Modesto	18	CO2	6/18/20	WNV
Stanislaus	EAST2022	20165	Cx. pipiens	Modesto	50	CO2	6/18/20	WNV
Stanislaus	TRLK1308	221	Cx. pipiens	Turlock	33	CO2	6/23/20	WNV
Stanislaus	TRLK1679	246	Cx. pipiens	Turlock	50	CO2	6/23/20	WNV
Stanislaus	TRLK17131	214	Cx. pipiens	Turlock	33	CO2	6/23/20	WNV
Stanislaus	TRLK432	219	Cx. pipiens	Turlock	50	CO2	6/23/20	WNV
Stanislaus	TRLK432	220	Cx. pipiens	Turlock	45	CO2	6/23/20	WNV
Tulare	DLTA8520	960	Cx. quinquefasciatus	Visalia	46	GRVD	6/24/20	WNV

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 with a plaque reduction neutralization test (PRNT).

Dead Birds

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

Sentinel Chickens:

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

Mosquito Pools:

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

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.maps.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC websites: www.cdc.gov and www.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html

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