

## California Arbovirus Surveillance Bulletin #10

Week 19 Friday, May 13, 2016



### Weekly Update

#### **Humans**

No human cases have been reported in 2016.

#### **Dead Birds**

This week, a total of 48 birds were tested from 13 counties. Five dead birds tested positive for West Nile virus (WNV) from Sacramento (1) and San Diego (4) counties. **This is the first detection of WNV in Sacramento County this year.** In 2016, 21 dead birds have tested positive for WNV from five counties, whereas at this time last year, 18 WNV positive birds had been reported from six counties.

#### **Mosquito Pools**

This week, a total of 1,046 mosquito pools were tested from 18 counties. Five WNV positive mosquito pools were reported from the following three counties: Los Angeles (1), Riverside (2), and San Diego (2). **This is the first detection of WNV in Riverside County this year.** In 2016, seven mosquito pools have tested positive for WNV from three counties, whereas at this time last year, 17 WNV positive mosquito pools had been reported from five counties.

#### **Sentinel Chickens**

This week, a total of 273 sentinel chicken blood samples were tested from eight counties; no positives were reported. To date this year, no seroconversions have been reported.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	2,515	1,644
# Positive Counties	10	6
# Human Cases	0	0
# Positive Dead Birds / # Tested	18 / 396	21 / 252
# Positive Mosquito Pools / # Tested	17 / 3,616	7 / 4,503
# Seroconversions / # Tested	0 / 1,687	0 / 502

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<b>YTD WNV Activity by Element and County, 2016</b>				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles		2	3	
Riverside			2	
Sacramento		1		
San Diego		14	2	
Santa Clara		3		
Solano		1		
<b>Totals</b>	<b>0</b>	<b>21</b>	<b>7</b>	<b>0</b>

### 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	48	5
	YTD	252	21

#### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	273	0	0	0
	YTD	502	0	0	0
Mosquito Pools	Week	1,046	5	0	0
	YTD	4,503	7	0	0

### NEW POSITIVES

#### Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Sacramento	Sacramento-Yolo MVCD	Sacramento	95864	American Crow	5/10/2016	WNV
San Diego	San Diego Co VCP	San Diego	92117	American Crow	5/9/2016	WNV
San Diego	San Diego Co VCP	San Diego	92129	American Crow	5/9/2016	WNV
San Diego	San Diego Co VCP	La Jolla	92093	American Crow	5/11/2016	WNV
San Diego	San Diego Co VCP	Rancho Santa Fe	92067	American Crow	5/11/2016	WNV

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### Mosquitoes

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected
Los Angeles	GRLA2567	5145	Cx. quinquefasciatus	Woodland Hills	50	GRVD	5/4/2016
Riverside	COAV208	1578	Cx. quinquefasciatus	Palm Springs	7	GRVD	5/12/2016
Riverside	COAV407	1576	Cx. quinquefasciatus	Palm Springs	23	CO2	5/12/2016
San Diego	SAND45	419	Cx. tarsalis	San Diego	50	CO2	4/20/2016
San Diego	SAND45	421	Cx. tarsalis	San Diego	50	CO2	4/20/2016

### 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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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](mailto:tina.feiszli@cdph.ca.gov).

Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.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.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov)