

California Arbovirus Surveillance Bulletin # 17

Week 23 Friday, June 10, 2005

Weekly Summary

Comments:

Humans:

No human cases of WNV have been reported this year.

Horses:

The California Department of Food & Agriculture reported a horse tested positive for WNV from Sonoma County. Presently we have no details on this horse. We will provide more information in the next bulletin. This is the second WNV positive horse for the year.

Dead Birds:

This week the hotline received 1,828 dead bird reports, for a YTD total of 18,674 reports. Thirty-four out of 216 (15.7%) dead birds collected from 35 counties tested positive for WNV.

- Four out of 123 (3.3%) birds tested positive for WNV via RT-PCR performed at UC Davis Center for Vectorborne Diseases (CVEC).
- One out of five corvids (20.0%) tested positive for WNV via VecTest.
- Seven out of 23 (30.4%) corvids tested positive for WNV via RAMP.
- Twenty-two out of 65 (34.0%) birds tested positive via immunohistochemistry.

WNV positive dead birds were collected from Fresno, Kings, Los Angeles, Orange, Riverside and San Joaquin counties. **This is the first indication of WNV activity in Riverside and San Joaquin counties.**

The following bird species tested positive for WNV: American crow (27); Steller's jay (1); western scrub-jay (4); yellow-billed magpie (2). See "WNV Positive Dead Birds" table for details.

Since January 1, 2005, 106 of 2,727 (3.9%) dead birds have tested positive for WNV.

Mosquito Pools:

CVEC reported nine WNV positive mosquito pools from Los Angeles (6), Orange (2) and Imperial (1) counties. This was the first detection of WNV activity in Los Angeles and Imperial counties (please note that the positive WNV mosquito pool from Imperial County had also tested positive for WEE as reported in last week's bulletin). Moreover, three more mosquito pools tested positive for WEE from Imperial County.

Sentinel Chickens:

VRDL reported that the previous flavivirus positive chicken from Antelope Valley has been confirmed to be WNV positive by PRNT. A second chicken from the same flock tested flavivirus positive, as well, and further confirmation testing will be performed and results reported in forthcoming bulletin.

Website Information:

For updated information on WNV, please visit the California WNV website, www.westnile.ca.gov, the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov. Please go to the Vector website at <http://vector.ucdavis.edu/arbo.html> for flock location and more information on WNV and other vector-borne diseases.

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TEST SUMMARIES

Humans and Horses

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested	Week	24	0	0	0	0	0	0	0	0
	YTD	478	0	0	0	0	0	0	0	0
Horses Tested	Week	10	0	1	0	0	0	0	0	0
	YTD	149	0	2	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	216	34
YTD	2727	106

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
	YTD	11139	2	0	0	0
Mosquito pools	Week	696	9	3	0	0
	YTD	6185	12	4	0	0

*Total has been adjusted to include local agency submission

Virus Isolations From Mosquito Pools:

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex tarsalis	25-5	COAV	1490	Niland	Imperial	2-June
WNV	Cx. quinquefasciatus	31-5	GRLA	580	Cerritos	Los Angeles	9-June
WNV	Cx. tarsalis	1-6	LONG	84	Long Beach	Los Angeles	2-June
WNV	Cx. tarsalis	1-6	LONG	87	Long Beach	Los Angeles	2-June
WNV	Cx. tarsalis	7-6	LONG	102	Long Beach	Los Angeles	8-June
WNV	Cx. tarsalis	7-6	LONG	107	Long Beach	Los Angeles	8-June
WNV	Cx. tarsalis	7-6	LONG	112	Long Beach	Los Angeles	3-June
WNV	Cx. tarsalis	2-6	ORCO	1545	Irvine	Orange	3-June
WNV	Cx. tarsalis	2-6	ORCO	1582	Irvine	Orange	3-June
WEE	Cx. tarsalis	6-6	IMPR	179	Palo Verde	Imperial	9-June
WEE	Cx. tarsalis	6-6	IMPR	180	Palo Verde	Imperial	9-June
WEE	Cx. tarsalis	6-6	IMPR	181	Palo Verde	Imperial	9-June

Chicken Seroconversions Reported by DHS:

	Virus	County	State	Acode	City	Location
****	WNV	Los Angeles	CA	ANTV 3247	Lancaster	CA Fairground
	Band: 8826					Probable Seroconversion Date: 11-May-05
	Flav. +	Los Angeles	CA	ANTV 3247	Lancaster	CA Fairground
	Band: 8830					Probable Seroconversion Date: 24-May-05

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WNV Positive Dead Birds Reported June 4- June 10, 2005

Species	County	City	Zip	Date Collected	Date Tested
American Crow	Riverside	Riverside	92506	5/31/05	6/6/05
American Crow	Riverside	Riverside	92506	5/31/05	6/6/05
American Crow	Riverside	Riverside	92506	5/31/05	6/6/05
American Crow	Los Angeles	Pico Rivera	90660	5/27/05	6/6/05
American Crow ¹	San Bernardino	Yucaipa	92399	6/1/05	6/1/05
American Crow ³	Orange	Huntington Beach	92647	5/16/05	5/16/05
American Crow ³	Orange	Villa Park	92861	5/16/05	5/16/05
American Crow ³	Orange	Huntington Beach	92649	5/17/05	5/17/05
American Crow ³	Orange	Huntington Beach	92647	5/20/05	5/20/05
American Crow ³	Orange	Huntington Beach	92649	5/23/05	5/23/05
American Crow ³	Orange	Buena Park	90620	5/23/05	5/23/05
American Crow ³	Orange	Westminster	92683	5/24/05	5/24/05
American Crow ³	Orange	Huntington Beach	92649	5/24/05	5/24/05
American Crow ³	Orange	Santa Ana	92702	5/25/05	5/25/05
American Crow ³	Orange	Seal Beach	90740	5/26/05	5/26/05
American Crow ³	Orange	Fountain Valley	92708	5/26/05	5/26/05
American Crow ³	Orange	Huntington Beach	92647	5/26/05	5/26/05
American Crow ³	Orange	Anaheim	92804	5/26/05	5/26/05
American Crow ³	Orange	Huntington Beach	92646	5/26/05	5/26/05
American Crow ³	Orange	Huntington Beach	92649	5/26/05	5/26/05
American Crow ³	Orange	Huntington Beach	92647	5/26/05	5/26/05
American Crow ³	Orange	Huntington Beach	92649	5/27/05	5/27/05
American Crow ³	Orange	Fountain Valley	92708	5/31/05	5/31/05
American Crow ³	Orange	Westminster	92683	5/31/05	5/31/05
American Crow ³	Orange	Huntington Beach	92649	5/31/05	5/31/05
American Crow ³	Orange	Westminster	92683	5/31/05	5/31/05
American Crow ³	Orange	Huntington Beach	92647	5/31/05	5/31/05
Steller's Jay ²	Fresno	Clovis	93619	6/6/05	6/8/05
Western Scrub Jay ²	Kings	Hanford	93230	5/20/05	5/21/05
Western Scrub Jay ²	Kings	Hanford	93230	6/1/05	6/2/05
Western Scrub Jay ²	Kings	Hanford	93230	6/3/05	6/6/05
Western Scrub Jay ²	Kings	Hanford	90660	6/6/05	6/8/05
Yellow-billed Magpie ²	San Joaquin	Acampo	95220	6/7/05	6/8/05
Yellow-billed Magpie ²	San Joaquin	Acampo	95220	6/7/05	6/8/05

¹Indicates VecTest

²Indicates RAMP

³Indicates immunohistochemistry

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National Comments:

As of June 7, 2005, non-human West Nile virus activity has been detected in the following 14 states: Arizona, California, Florida, Illinois, Indiana, Louisiana, Michigan, Minnesota, Mississippi, Nevada, New Jersey, New York, Tennessee and Texas. No human cases have been reported yet this year.

TEST PROTOCOLS

Dead Birds:

All bird species, except chickens, doves, and pigeons, from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Positive Vec-Tests from oral swabs from crows are no longer confirmed. Other bird species are tested by singleplex RT-PCR and confirmed with a second primer set.

Dead birds are necropsied at the California Animal Health and Food Safety (CAHFS) Laboratories and kidney tissue from the dead birds are forward to the UC Davis Center for Vectorborne Diseases (CVEC) for WNV using the PCR Taqman assay. Organ pools from PCR positive carcasses are tested using cell culture for virus isolation. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are tested for the presence of antibodies to West Nile virus (WNV), western equine encephalomyelitis (WEE), and St. Louis encephalitis (SLE) viruses by EIA and IFA. The VRDL performs additional testing, including plaque reduction neutralization (PRNT), on specimens from sentinel chickens from geographic areas where WNV is detected for the first time. The VRDL also forwards selected serum to CVEC for additional testing for WNV, WEE, and SLE antibodies as needed.

Mosquito Pools:

All mosquito pools are screened for WEE, SLE, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation 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) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Al Hom by phone (510) 412-6252, FAX (510) 412-6263, or email [ahom@dhs.ca.gov].