

California Arbovirus Surveillance Bulletin # 3

Week 8 Friday, February 25, 2005

Weekly Summary

California Weekly Summary Comments:

Humans:

No positive human cases have been reported.

Horses:

The California Department of Food & Agriculture reported no new WNV positive equine cases.

Dead Birds:

The hotline has received 1,985 reports of dead birds in 2005. The UC Davis Center for Vectorborne Diseases (CVEC) has reported 12 out of 148 (8.1%) dead birds, tested between February 12 and 25, 2005, were positive for WNV by RT-PCR. Five additional dead birds tested at local agencies via Vec-Test were negative for West Nile virus. The following counties have had dead birds test positive for West Nile Virus in 2005: Contra Costa (2), Fresno (1), Humboldt (1), Los Angeles (2), Sacramento (1), Santa Clara (2), Santa Cruz (1), Solano (1), Sonoma (3), Stanislaus, and Tulare (1). **The positive dead birds have been the first indication of WNV in Contra Costa, Fresno, Humboldt, Sacramento, Santa Cruz, Stanislaus, and Tulare counties in 2005.** The birds that tested positive for West Nile virus were the following species: American crows (4), a Brewer's blackbird (1), a Cooper's hawk (1), house sparrows (4), a lesser goldfinch (1), pine siskins (3), a red-winged blackbird (1), and a yellow-billed magpie (1).

A cumulative total of 370 dead birds were tested, thus 4.3% (16/370) of the birds tested were WNV positive.

Mosquito Pools:

CVEC reported one pool of *Culex quinquefasciatus* collected on 1/25 in Santa Ana in Orange County tested positive for WNV. This is the first positive mosquito pool in the state for 2005.

Chickens:

VRDL reported a single chicken seroconversion from a flock located in Ontario (San Bernardino County). This is the first seroconversion in 2005. The last seroconversions from this flock were in August, 2004.

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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TESTING SUMMARIES

Humans and Horses

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Individuals Tested	Week	39	0	0	0	0	0	0	0	0
	YTD	138	0	0	0	0	0	0	0	0
Suspect Equine Cases	Week	1	0	0	0	0	0	0	0	0
	YTD	20	0	0	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	153	12
YTD	370	16

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
Chicken sera	Week	250	1	0	0	0
	YTD	776	1	0	0	0
Mosquito pools	Week	0	1	0	0	0
	YTD	419	1	0	0	0

*This total has been adjusted to include local agency submission

POSITIVES

Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
WNV	San Bernardino	CA	WVAL0006	Ontario	Hillardes
Band: 3827					Probable Seroconversion Date: 15-February-05

Virus Isolations From Mosquito Pools:

Virus	Mosquito species	Date Collected	ACODE	Pool #	City	County	Date Received
WNV	Culex quinquefasciatus	25-1	ORCO	63	Santa Ana	Orange	8-Feb

Dead Birds Tested Positive for WNV last week:

Species	County	City	ZIP	Date Collected	Date Tested
House Sparrow	Fresno	Kingsburg	93631	2/2/2005	2/14/2005
American Crow	Los Angeles	Valencia	91355	2/3/2005	2/14/2005
House Sparrow	Humboldt	Ferndale	95536	2/3/2005	2/14/2005
Red-winged Blackbird	Contra Costa	Port Costa	94569	2/4/2005	2/14/2005
Lesser Goldfinch	Sonoma	Santa Rosa	95409	2/6/2005	2/14/2005
House Sparrow	Contra Costa	Discovery Bay	94514	2/7/2005	2/14/2005
Yellow-billed Magpie	Sacramento	Sacramento	95841	2/7/2005	2/14/2005
Pine Siskin	Sonoma	Santa Rosa	95409	2/7/2005	2/22/05
House Sparrow	Tulare	Tulare	93274	2/8/2005	2/22/05
Pine Siskin	Santa Cruz	Watsonville	95076	2/9/2005	2/22/05
Brewer's Blackbird	Santa Clara	Morgan Hill	95037	2/10/2005	2/22/05
Cooper's Hawk	Stanislaus	Modesto	95350	2/10/2005	2/22/05

***Indicates Vec-Test

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Dead Birds:

Dead bird kidney tissues are tested at CVEC using the PCR Taqman assay, subsequent to carcass necropsy at the California Animal Health and Food Safety (CAHFS) Laboratories. 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.

All bird species (except chickens, doves, and pigeons) from all zip codes are being accepted for testing except from a limited number of agencies. Positive Vec-tests from oral swabs from crows are no longer confirmed. Other bird species tested by RT-PCR using singleplex and confirmed with a second primer set.

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) and IgM Capture – Enzyme Linked Immunosorbent Assay (MAC-ELISA)) on specimens from sentinel chickens in which antibodies are detected in new geographic areas. The VRDL also forwards selected serum to the UC Davis Center for Vectorborne Diseases (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. There will be an elimination of *in situ* EIA testing for all mosquito species.

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].