

California Arbovirus Surveillance Bulletin # 20

Week 27 Thursday, July 3, 2008

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

Two new West Nile virus (WNV) positive human cases were reported this week in Stanislaus County. In 2008, three WNV human cases have been reported in the following two counties Stanislaus (2), and Tulare (1) counties.

Horses

No new equine cases were reported this week. In 2008, one WNV case has been detected in a horse from Riverside County.

Dead Birds & Tree Squirrels

Eighty-three new West Nile virus (WNV) positive dead birds were reported this week from the following counties: Contra Costa (1), Fresno (2), Glenn (1), Los Angeles (12), Nevada (2), Orange (23), Riverside (1), Sacramento (5), San Bernardino (2), San Diego (15), San Joaquin (9), Santa Clara (2), Shasta (1), Stanislaus (2), and Tulare (5). **This is the first indication of WNV activity in Glenn County this year.** In 2008, 268 WNV positive dead birds have been detected in 20 counties.

No WNV positive tree squirrels have been reported in 2008.

Mosquito Pools

Twenty-nine new positive mosquito pools were reported this week from the following counties: Contra Costa (1), Kern (1), Los Angeles (8), Riverside (1), Sacramento (2), San Bernardino (2), San Joaquin (8), Solano (1), Stanislaus (1), and Tulare (4) counties. **This is the first indication of WNV activity in Solano County this year.** In 2008, 86 WNV positive mosquito pools have been detected in 14 counties.

Sentinel Chickens

Two new seroconversions were reported this week from Riverside (1) and San Bernardino (1) counties. In 2008, four WNV seroconversions have been detected in chickens from three counties.

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.

2007 & 2008 YTD West Nile Virus Comparisons		
	2007	2008
Total # Dead Bird Reports	13,059	13,708
# Positive Counties	25	21
# Human Cases/ # Tested	3 / 466	3 / 389
# Horse Cases/ # Tested	2 / 146	1 / 108
# Positive Dead Birds/ # Tested	159 / 2,159	268 / 2,113
# Positive Mosquito Pools/ # Tested	141 / 8568	86 / 8,649
# Positive Chicken Sera/ # Tested	5 / 12,230	4 / 12,664
# Positive Squirrels/ # Tested	1 / 074	0 / 78

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YTD WNV Activity by Element and County, 2008

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Squirrels
Butte			1			
Contra Costa			2	2		
El Dorado			1			
Fresno			2	3		
Glenn			1			
Kern			1	3		
Los Angeles			41	20	2	
Nevada			3			
Orange			68	2		
Riverside		1	4	19		
Sacramento			10	4		
San Bernardino			7	4		
San Diego			61	1		
San Joaquin			16	18		
San Mateo			1			
Santa Clara			6	1		
Shasta			6			
Solano				1		
Stanislaus	2		6	1		
Sutter			2			
Tulare	1		29	7		
Totals	3	1	268	86	2	0

2008 TEST SUMMARIES

Human & Horse Cases

		Number Tested	WNV		WEE		SLE		Other	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested*	Week	18	0	2	0	0	0	0	0	0
	YTD	389	0	3	0	0	0	0	0	0
Horses Tested	Week	89	0	0	0	0	0	0	0	0
	YTD	108	0	1	0	0	0	0	0	0

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Dead Birds & Tree Squirrels

		Number Tested	WNV Positive
Dead Birds	Week	246	83
	YTD	2,113	268
Tree Squirrels	Week	7	0
	YTD	78	0

Sentinel Chickens & Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive
Chicken Sera	Week	888	2	0	0
	YTD	12,664	4	0	0
Mosquito Pools: RT-PCR	Week	858	19	0	0
	YTD	8,087	66	0	0
Mosquito Pools: RAMP	Week	72	10	N/A	N/A
	YTD	562	20	N/A	N/A

POSITIVES: 6/30/08 – 7/3/08

Dead Birds

County	City	Zip	Species	Reported	Tested	Test Method
Contra Costa	Antioch	94509	Western Scrub-Jay	6/30/08	6/30/08	RAMP
Fresno	Clovis	93611	American Robin	6/23/08	6/30/08	RT-PCR
Fresno	Fresno	93704	Western Scrub-Jay	6/23/08	6/30/08	RT-PCR
Glenn	Artois	95913	Yellow-billed Magpie	6/25/08	6/30/08	RT-PCR
Los Angeles	Arcadia	91007	American Crow	6/25/08	6/30/08	VecTest
Los Angeles	Arcadia	91007	American Crow	6/26/08	6/26/08	VecTest
Los Angeles	La Crescenta	91214	American Crow	6/26/08	6/30/08	VecTest
Los Angeles	Monrovia	91016	American Crow	6/20/08	6/30/08	RT-PCR
Los Angeles	Monrovia	91016	American Crow	7/1/08	6/30/08	VecTest
Los Angeles	Monrovia	91016	American Crow	7/1/08	6/30/08	VecTest
Los Angeles	Northridge	91325	House Sparrow	6/18/08	6/30/08	RT-PCR
Los Angeles	Norwalk	90650	American Crow	6/26/08	6/30/08	VecTest
Los Angeles	Pico Rivera	90660	American Crow	6/16/08	6/30/08	RT-PCR
Los Angeles	Santa Fe Springs	90670	American Crow	6/24/08	6/30/08	RT-PCR
Los Angeles	West Hills	91307	American Crow	6/18/08	6/30/08	RT-PCR
Los Angeles	Whittier	90601	American Crow	6/18/08	6/30/08	RT-PCR
Nevada	Grass Valley	95945	American Robin	6/23/08	6/30/08	RT-PCR
Nevada	Penn Valley	95946	American Crow	6/19/08	6/30/08	RT-PCR
Orange	Anaheim	92802	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Anaheim	92802	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Anaheim	92805	American Crow	6/17/08	6/17/08	RT-PCR
Orange	Anaheim	92802	American Crow	6/20/08	6/19/08	RT-PCR
Orange	Buena Park	90620	Unknown	6/16/08	6/16/08	RT-PCR
Orange	Buena Park	90620	American Crow	6/18/08	6/16/08	RT-PCR
Orange	Buena Park	90620	American Crow	6/19/08	6/19/08	RT-PCR
Orange	Buena Park	90620	American Crow	6/20/08	6/19/08	RT-PCR
Orange	Costa Mesa	92626	American Crow	6/20/08	6/20/08	RT-PCR
Orange	Cypress	90630	American Crow	6/19/08	6/19/08	RT-PCR
Orange	Fountain Valley	92708	American Crow	6/19/08	6/19/08	RT-PCR
Orange	Fullerton	92833	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Garden Grove	92841	American Crow	6/16/08	6/16/08	RT-PCR

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Orange	Garden Grove	92843	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Garden Grove	92843	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Garden Grove	92841	American Crow	6/16/08	6/16/08	RT-PCR
Orange	Garden Grove	92840	American Crow	6/17/08	6/17/08	RT-PCR
Orange	Garden Grove	92840	American Crow	6/17/08	6/17/08	RT-PCR
Orange	Orange	92867	American Crow	6/20/08	6/19/08	RT-PCR
Orange	Orange	92866	American Crow	6/20/08	6/20/08	RT-PCR
Orange	Orange	92865	American Kestrel	6/20/08	6/20/08	RT-PCR
Orange	Santa Ana	92704	American Crow	6/20/08	6/19/08	RT-PCR
Orange	Tustin	92782	American Crow	6/20/08	6/20/08	RT-PCR
Riverside	Norco	92860	American Crow	6/25/08	6/30/08	RT-PCR
Sacramento	Citrus Heights	95621	American Crow	6/23/08	6/30/08	RT-PCR
Sacramento	Sacramento	95831	Common Raven	6/17/08	6/30/08	RT-PCR
Sacramento	Sacramento	95831	American Crow	6/19/08	6/30/08	RT-PCR
Sacramento	Sacramento	95833	Western Scrub-Jay	6/23/08	6/30/08	RT-PCR
Sacramento	Sacramento	95841	Song Sparrow	6/24/08	6/30/08	RT-PCR
San Bernardino	Chino	91710	House Finch	6/25/08	6/30/08	RT-PCR
San Bernardino	Chino	91710	American Crow	6/27/08	6/27/08	VecTest
San Diego	Escondido	92026	American Crow	6/23/08	6/25/08	RT-PCR
San Diego	Lemon Grove	91945	American Crow	6/19/08	6/23/08	RT-PCR
San Diego	Lemon Grove	91945	Sharp-shinned Hawk	6/23/08	6/25/08	RT-PCR
San Diego	Oceanside	92057	American Crow	6/19/08	6/23/08	RT-PCR
San Diego	Oceanside	92054	American Crow	6/19/08	6/23/08	RT-PCR
San Diego	Oceanside	92056	American Crow	6/23/08	6/25/08	RT-PCR
San Diego	Oceanside	92057	American Crow	6/23/08	6/25/08	RT-PCR
San Diego	San Diego	92129	American Crow	6/18/08	6/23/08	RT-PCR
San Diego	San Diego	92109	American Crow	6/18/08	6/23/08	RT-PCR
San Diego	San Diego	92131	American Crow	6/18/08	6/23/08	RT-PCR
San Diego	San Diego	92109	American Crow	6/18/08	6/23/08	RT-PCR
San Diego	San Diego	92109	American Crow	6/18/08	6/23/08	RT-PCR
San Diego	San Diego	92109	American Crow	6/20/08	6/25/08	RT-PCR
San Diego	San Diego	92109	Cooper's Hawk	6/23/08	6/25/08	RT-PCR
San Diego	Solana Beach	92075	American Crow	6/23/08	6/25/08	RT-PCR
San Joaquin	Stockton	95207	American Crow	6/25/08	6/25/08	RAMP
San Joaquin	Stockton	95203	Brewer's Blackbird	6/25/08	6/30/08	RT-PCR
San Joaquin	Stockton	95209	American Crow	6/26/08	6/25/08	RAMP
San Joaquin	Stockton	95204	American Crow	6/29/08	6/30/08	VecTest
San Joaquin	Stockton	95206	American Crow	7/1/08	7/1/08	RAMP
San Joaquin	Tracy	95304	American Crow	6/24/08	6/24/08	RAMP
San Joaquin	Tracy	95304	American Crow	6/24/08	6/24/08	RAMP
San Joaquin	Tracy	95304	American Crow	6/24/08	6/24/08	RAMP
San Joaquin	Tracy	95376	American Crow	6/24/08	6/24/08	RAMP
Santa Clara	Mountain View	94043	American Crow	6/26/08	6/26/08	VecTest
Santa Clara	Mountain View	94043	American Crow	6/26/08	6/26/08	VecTest
Shasta	Shingletown	96088	Common Raven	7/1/08	6/30/08	RAMP
Stanislaus	Modesto	95356	Western Scrub-Jay	6/23/08	6/30/08	RT-PCR
Stanislaus	Turlock	95380	American Crow	6/26/08	6/26/08	VecTest
Tulare	Visalia	93277	American Crow	6/17/08	6/30/08	RT-PCR
Tulare	Visalia	93291	Western Scrub-Jay	6/18/08	6/30/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/19/08	6/30/08	RT-PCR

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Tulare	Visalia	93277	American Crow	6/23/08	6/30/08	RT-PCR
Tulare	Visalia	93277	American Crow	6/23/08	6/30/08	RT-PCR

Mosquito Pools

Site Code	Pool #	Species	# in Pool	Collected	Tested	City	County	Virus
CNTR1523	127	Cx tarsalis	10	7/2/2008	7/2/2008	Antioch	Contra Costa	WNV
COAV0055	1226	Cx tarsalis	50	6/26/2008	7/3/2008	Mecca	Riverside	WNV
DLTA8413	80	Cx tarsalis	36	7/1/2008	7/2/2008	Visalia	Tulare	WNV
DLTA8527	61	Cx quinquefasciatus	36	7/1/2008	7/2/2008	Visalia	Tulare	WNV
DLTA8531	65	Cx quinquefasciatus	39	7/1/2008	7/2/2008	Visalia	Tulare	WNV
DLTA9403	64	Cx quinquefasciatus	12	7/1/2008	7/2/2008	Visalia	Tulare	WNV
EAST1075	8096	Cx pipiens	40	7/3/2008	7/3/2008	Riverbank	Stanislaus	WNV
GRLA2219	527	Cx quinquefasciatus	50	6/24/2008	7/3/2008	Rowland Heights	Los Angeles	WNV
GRLA2540	5354	Cx quinquefasciatus	50	6/26/2008	7/3/2008	Northridge	Los Angeles	WNV
GRLA2637	5350	Cx tarsalis	11	6/25/2008	7/3/2008	Van Nuys	Los Angeles	WNV
GRLA2645	5343	Cx quinquefasciatus	24	6/25/2008	7/3/2008	Encino	Los Angeles	WNV
GRLA2800	544	Cx quinquefasciatus	50	6/26/2008	7/3/2008	Long Beach	Los Angeles	WNV
GRLA2953	565	Cx quinquefasciatus	50	6/26/2008	7/3/2008	Santa Fe Springs	Los Angeles	WNV
GRLA2954	566	Cx quinquefasciatus	50	6/26/2008	7/3/2008	Cerritos	Los Angeles	WNV
KERN2002	136	Cx quinquefasciatus	50	6/27/2008	7/2/2008	Bakersfield	Kern	WNV
LONG0602	174	Cx quinquefasciatus	50	7/1/2008	7/2/2008	Signal Hill	Los Angeles	WNV
SAYO2301	2603	Cx pipiens	50	6/27/2008	6/27/2008	Sacramento	Sacramento	WNV
SAYO2301	2604	Cx pipiens	20	6/27/2008	6/27/2008	Sacramento	Sacramento	WNV
SJCM8077	433	Cx tarsalis	7	7/1/2008	7/1/2008	Stockton	San Joaquin	WNV
SJCM8100	401	Cx pipiens	26	7/1/2008	7/1/2008	Tracy	San Joaquin	WNV
SJCM8100	402	Cx tarsalis	50	7/1/2008	7/1/2008	Tracy	San Joaquin	WNV
SJCM8100	403	Cx tarsalis	12	7/1/2008	7/1/2008	Tracy	San Joaquin	WNV
SJCM8100	435	Cx pipiens	6	7/1/2008	7/1/2008	Tracy	San Joaquin	WNV
SJCM8128	416	Cx tarsalis	50	7/1/2008	7/1/2008	Tracy	San Joaquin	WNV
SJCM8132	437	Cx pipiens	10	7/1/2008	7/1/2008	Stockton	San Joaquin	WNV
SJCM8145	438	Cx pipiens	22	7/1/2008	7/1/2008	Stockton	San Joaquin	WNV
SOLA9999	4	Cx tarsalis	50	7/1/2008	7/2/2008	Fairfield	Solano	WNV
WVAL2005	412	Cx tarsalis	39	6/26/2008	7/1/2008	Chino	San Bernardino	WNV
WVAL2008	401	Cx quinquefasciatus	50	6/25/2008	7/1/2008	Chino	San Bernardino	WNV

NATIONAL COMMENTS

No new update: As of June 24, 2008, 13 human cases have been reported nationwide this year in the following 7 states: Arizona (1), California (1), Mississippi (4), North Dakota (1), Oklahoma (2), Tennessee (1), and Texas (3). None of the cases have resulted in fatalities. At this time last year, 19 human cases had been reported nationwide.

TEST PROTOCOLS

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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 by plaque reduction neutralization test (PRNT).

*Human denominator data only includes specimens tested at VRDL and does not include additional negative specimens that are tested by local agencies only.

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds and Tree Squirrels:

All bird and tree squirrel species from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Additionally, doves, pigeons, and chickens are no longer be accepted for testing. Corvids that test positive via RAMP or VecTest are no longer confirmed. Dead birds and squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne Diseases (CVEC) for WNV testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set. The WNV Dead Bird Surveillance Coordinator, Erin Parker, can be reached directly at (510) 412-6254.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to VBDS Laboratory and 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. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

Mosquito pools are submitted to CVEC and 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), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Stan Husted by phone (510) 412-6253, FAX (510) 412-6263, or email: stan.husted@cdph.ca.gov
