

West Nile virus cases surging across California

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In the midst of a historic drought, public health officials are searching for clues as to why cases of West Nile virus have exploded statewide since last year, making this season the worst for human infections in California since 2005.

The surge in mosquitoes found carrying the virus in 2014 has not only reached unprecedented levels, it's also creating headaches for local vector and mosquito control districts, which are pushing hard to kill the disease-carrying pests and their larvae.

Butte County has had 22 human cases as of Tuesday, according to the state's West Nile virus information page, westnile.ca.gov. In all of last year there were just 24 cases, according to information from the Butte County Mosquito and Vector Control District.

Glenn County has seen 12 human cases this year, including one of the 17 fatalities.

A surge in infected mosquitoes has been seen, with 3,048 positive samples, compared to 2,379 last year. Over the summer, the Santa Clara County Vector Control District found as many as 1 in 20 mosquitoes infected with West Nile in the area, acting manager Russ Parman said.

"It's been an absolutely incredible season," Parman said. "It's been off the charts."

In Butte County, 43 mosquito pools have been found to be infected, a new high. Last year 38 pools showed the virus.

Originally discovered in Africa, West Nile virus was first detected in the eastern United States in 1999. Since then, the mosquito-borne disease has spread throughout the country and is well established in most states, including California.

This year, the proportion of mosquitoes infected with the virus statewide is at the highest level ever detected, according to the California Department of Public Health. Statewide, 562 human cases of West Nile have been reported as of Tuesday, more than twice the number from a year ago. The state has also confirmed 17 deaths related to the virus so far, up from 15 in all of 2013.

The numbers are concerning to state public health officials, who say it could be linked to a range of factors, including climate, the number and types of birds and mosquitoes in an area, the level of immunity in birds, and the drought.

"It is possible that the drought has accelerated West Nile virus infections by creating more limited sources of water for birds and mosquitoes," said Dr. Gil Chavez, state epidemiologist and deputy director of the California Department of Public Health. "Thus, as birds and mosquitoes seek water, they are coming into closer contact and amplifying the virus. ... In addition, the lack of water can cause some sources of water to stagnate, thus making the water sources more attractive for mosquitoes to lay eggs."

For most people, the risk of serious illness from West Nile is low, according to the Centers for Disease Control and Prevention. About 80 percent of infected persons won't show any symptoms, but 20 percent will come down with fever, body aches or other flu-like signs. And in about 1 percent of the population, the disease can develop into a serious neurological illness, such as meningitis or encephalitis. West Nile has no cure or known treatment.