



CalSurv Gateway

CalSurv Gateway is an online interactive platform that provides tools for real-time data collection, visualization, and analysis of public health vectors. The system curates local and statewide data that enables 81 mosquito and vector control and public health agencies in California to make informed decisions on public health interventions.

The online interface has scalable software services that allow agencies to continually add surveillance and control data related to mosquitoes and arboviruses and develop custom reports to guide local decision-making. The system allows users to compare past and present results of arbovirus surveillance, including West Nile virus and St. Louis encephalitis virus, as well as track the spread of invasive *Aedes aegypti*, *Aedes albopictus*, and *Aedes notoscriptus* mosquitoes. Each agency manages its own data and can grant access for other agencies to view their data in an effort to increase collaboration and make informed decisions based on regional activities and interventions.

The maps can also be embedded into information shared by public health agencies or the media to provide a real-time view of surveillance data and public health risk. The California Department of Public Health uses data collected on mosquito abundance, dead birds, sentinel chickens, outside temperatures and mosquito infection rates to inform the overall risk assessment for vector-borne disease for the state.

In 2019, CalSurv Gateway was codified in statute (AB 320 – Quirk) as the statewide surveillance database that enables public health and vector control agencies to proactively identify invasive and native mosquitoes, prioritize problematic areas, and develop the most effective responses to prevent the spread of mosquito-borne diseases.



KEY FEATURES

CalSurv Gateway houses data on more than 786,000,000 arthropods (mosquitoes, other flies, and ticks) and provides analysis and visualization tools including the following interactive maps:

- Arbovirus maps which show positive collections of various virus-tested mosquitoes, dead birds, and sentinel chickens over time
- Invasive mosquito maps which show the spread of *Aedes aegypti*, *Aedes albopictus*, and *Aedes notoscriptus*
- Dengue/Zika Risk Index which shows the relative risk of a second case of Dengue or Zika if there was a confirmed locally-transmitted positive case
- Mosquito abundance maps
- Maps showing pesticide applications
- Maps showing pesticide resistance data

TESTIMONIALS



CalSurv has become an essential tool to our District operations. Leveraging the information we provide and process through CalSurv, we're able to better protect our residents from mosquito-borne diseases. As a direct service agency, having the partnership with CalSurv provides us access to researchers and analysis tools we would never have the time or resources to effectively implement. We see continued support and the future growth of CalSurv as crucial to maximizing our public health mission."

Peter Bonkrude, MS
 District Manager
 Shasta Mosquito and Vector Control District



We have been involved with the development of CalSurv since its inception which now enables us to access decades of information online from anywhere at any time. Its value has been ever increasing as more and more analytical and visualization tools have been added. The database facilitates seamless communication between local agencies and the mosquito and chicken blood testing laboratories at the Davis Arbovirus Research and Training (DART) facility and the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) in Richmond, respectively. The quick turnaround time and reliable management of test results that CalSurv supports are essential for making the necessary decisions to protect our residents from vectors and the diseases they can transmit."

Susanne Klueh
 Scientific-Technical Services Director
 Greater Los Angeles County Vector Control District



COMPILING COVID-19 DATA

During the COVID-19 pandemic, CalSurv Gateway expanded to provide a compilation of official COVID-19 data at <https://covid19.calsurv.org>. There are many COVID-19 visualizations, but few allow for easy comparisons between places.

On this site users can compare data for different countries, states and counties as well as look at specifics for each state (case incidence, deaths and test results).

The CalSurv team at the UC Davis School of Veterinary Medicine developed this resource which is continually updated with the latest information.