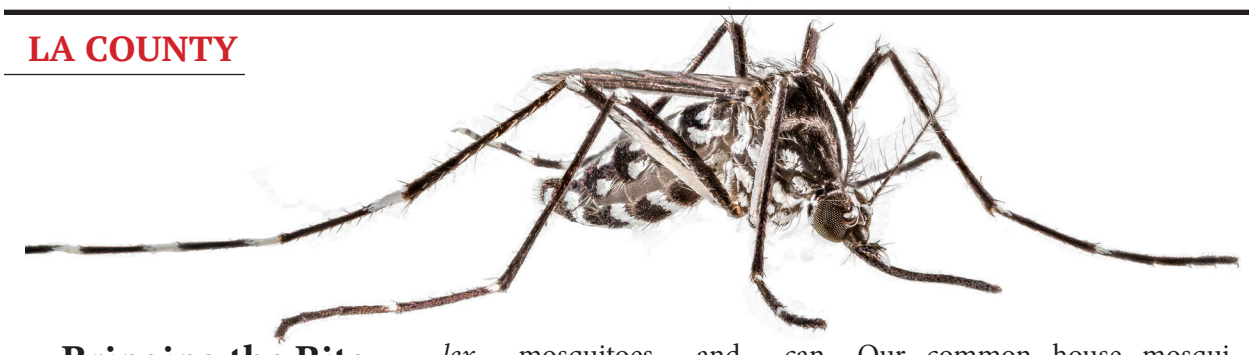
SPECIAL REPORT

Invasive *Aedes* mosquitoes are changing our way of life in Southern California

LA COUNTY



Bringing the Bite: Mosquitoes May Get Worse in 2018

The Greater Los Angeles County Vector Control District (GLACVCD) and San Gabriel Valley Mosquito and Vector Control District (SGVMVCD) are two of five vector control districts in Los Angeles County. For decades, their staff have been fighting existing *Culex* mosquitoes that can transmit West Nile virus. More recently, since 2011, they've been battling a new invasive species of mosquitoes: *Aedes albopictus* (Asian tiger mosquito), *Aedes aegypti* (yellow fever mosquito), and *Aedes notoscriptus* (Australian backyard mosquito). But the mosquitoes may have the upper hand in this fight in southern California, unless we act now. We asked experts at these two vector control districts about the situation.

It seems like there are more mosquitoes this year. Are there? Yes. The new invasive *Aedes* mosquitoes infest new communities every year. They bite very aggressively compared to our native *Culex* mosquitoes and can make even short periods of time outdoors difficult.

So we have new mosquitoes here now. What's the big deal? Imagine having the most excruciating joint pain for a week and missing work. Or, one day, you realize that a newborn in the family may have birth defects due to Zika. Those are possible realities with the *Aedes* mosquitoes. Luckily, at this time, there aren't any local outbreaks, but the mosquitoes are here now, which presents this potential risk.

Can't vector control just get rid of these invasive insects? Between GLACVCD and SGVMVCD, there are only 140 vector control staff protecting 8.1 million residents. And if we tried to visit every property just once, it would take us nearly three years! Residents who care about their health, and do not want to get bites, must do their part to eliminate stagnant water in their own yards and patios.

I thought dirty swimming pools are the biggest mosquito problem in my neighborhood? Our common house mosquito loves lounging and laying eggs in dirty pools. However, the *Aedes* mosquitoes prefer small cryptic sources like bottle caps, small vases, old tires and any container that can hold a small amount of water.

Isn't there a spray that can just get rid of these mosquitoes? Vector control is very sensitive to how its operations impact the environment. Our EPA-registered pesticides can work, but, like any tool, they must be used carefully and at certain times so they do not impact other wildlife. Even so, doing any kind of treatment is very expensive and isn't a long-term solution. Pesticides won't be able to kill the mosquito eggs and can't eliminate stagnant water. Tipping out water and tossing out containers that hold water are the best solutions for mosquito control, but everyone has to participate.

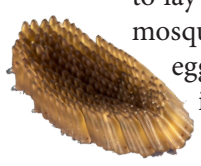
Are we doomed to have *Aedes* take over our lives? No. We can still work together to eliminate the threat. Tip 'n' tossing containers that can hold stagnant water. Together, we can keep mosquitoes out of our communities!

DID YOU KNOW?

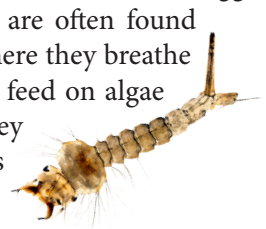
Mosquitoes Grow in Water

That's right! Mosquitoes need standing water to lay their eggs and grow. Any container that holds more than a teaspoon of water and is left uncovered for more than a few days can grow mosquitoes. Take a look at what the life cycle looks like.

Egg The female mosquito finds a suitable place to lay her eggs. Depending on the species mosquitoes lay eggs in rafts of 100-300 eggs on the water surface, or individually on containers above the water line.



Larva Within days, larvae hatch from the eggs. Mosquito larvae are often found at the surface of the water where they breathe air through their siphon and feed on algae and bacteria in the water. They shed their skin four times as they grow over several days.



Pupa In the next stage of the life cycle, mosquitoes develop into pupae where they will finish their development in a cocoon-like shell. Pupae do not feed but must come to the water surface to breathe. After a few days, the pupal skin splits and the adult mosquito emerges.

Adult Newly emerged adult mosquitoes rest on the surface of the water until they are strong enough to fly. After mating, female mosquitoes fly off in search of a blood meal necessary for egg development and start the cycle all over again.

It only takes 5-7 days for mosquitoes to develop from egg to biting adults!

Inspect Your Property on a Weekly Basis

Inspect your property weekly looking for containers "man-made or natural" that can hold more then a teaspoon of water.

Take these actions:

1. Throw away your used containers
2. Scrub down and store reusable containers in a dry place
3. Regularly inspect permanent fixtures that will remain in the yard

Inspect your property weekly and immediately after it rains, tip and toss containers holding water.

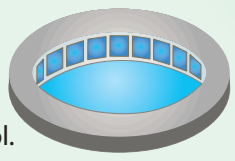
1. Recyclables/Open Containers - Keep recyclables in closed containers.

2. Boats/RV - Check and remove water weekly from boat covers.

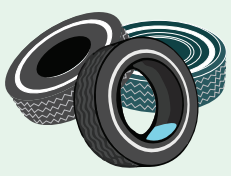
3. Rain Gutters - Keep clear of leaves and other debris.

4. Tropical Plants & Plant Saucers - Don't over-water. Drill holes or remove saucers.

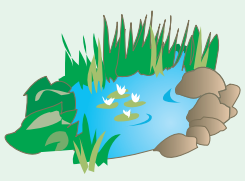
5. Childrens Toys - Store toys in a dry, closed container.



6. Unmaintained Pool/Spa - Maintain even when not in use. Report unmaintaned pools or spas by contacting vector control.

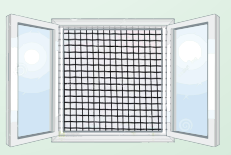


7. Tires - Drill holes in tire swings. Recycle used tires or store in a covered area.



8. Ponds - Stock ornamental ponds with mosquitofish. Keep ponds clear and free of excess vegetation.

9. Yard Clutter - The stuff in your yard can collect water.



10. Window Screens - Install and maintain tight fitting window and door screens.

11. Leaky Hoses - Replace hoses and fix leaky faucets, pipes, and sprinklers.

12. Storm Drain - Clear debris, screen the grate, and/or treat with *Bacillus thuringiensis israelensis* (Bti).

13. Birdbath - Clean or hose out weekly.

Residential yards are often the #1 source of mosquito production in a community.

Still having problems? Contact your local mosquito control district:

San Gabriel Valley Mosquito & Vector Control District
1145 N Azusa Canyon Road
West Covina, CA 91790
(626) 814-9466
www.SGVmosquito.org

Greater Los Angeles County Vector Control District
12545 Florence Ave.
Santa Fe Springs, CA 90670
(562) 944-9656
www.GLACVCD.org