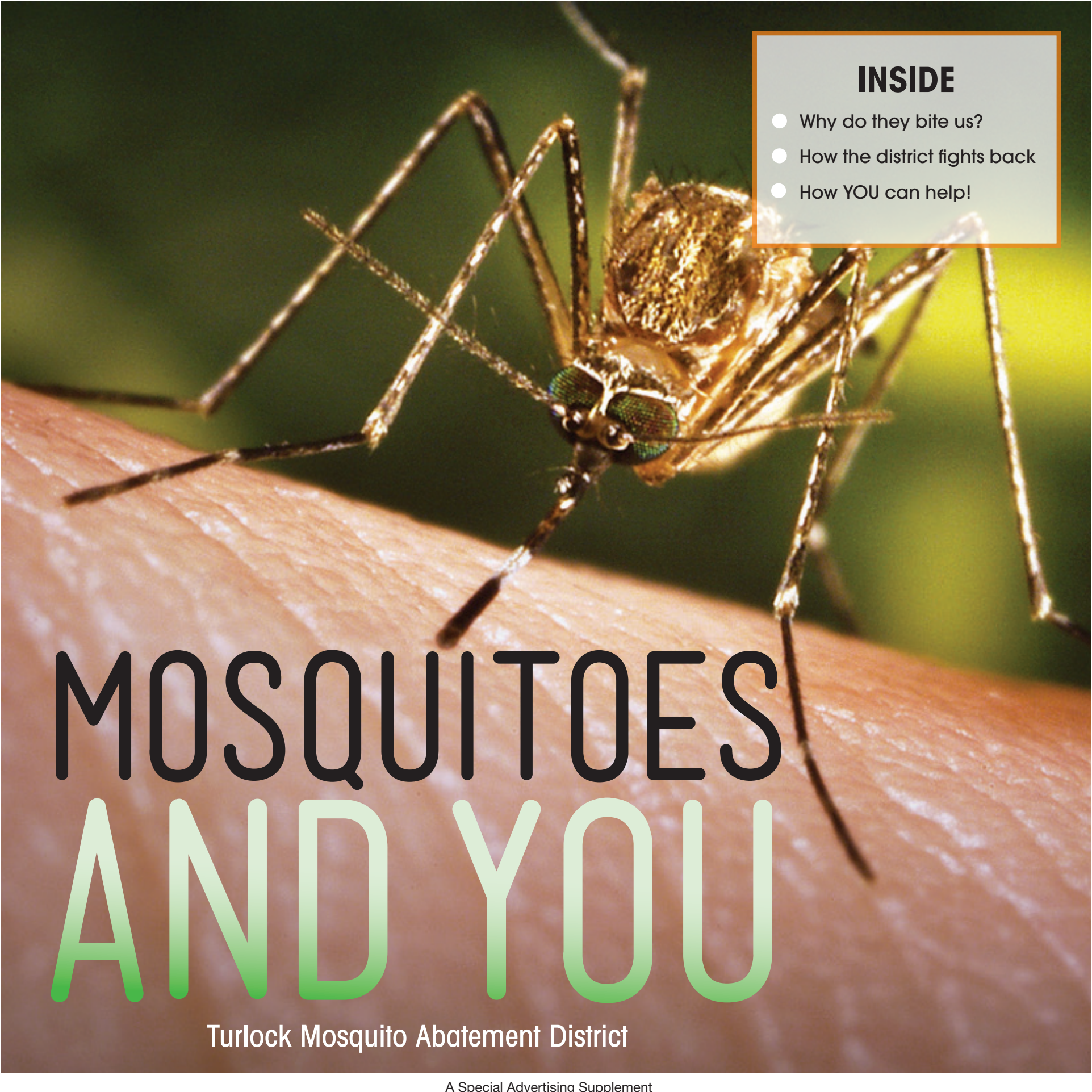




INSIDE

- Why do they bite us?
- How the district fights back
- How YOU can help!

MOSQUITOES AND YOU

Turlock Mosquito Abatement District

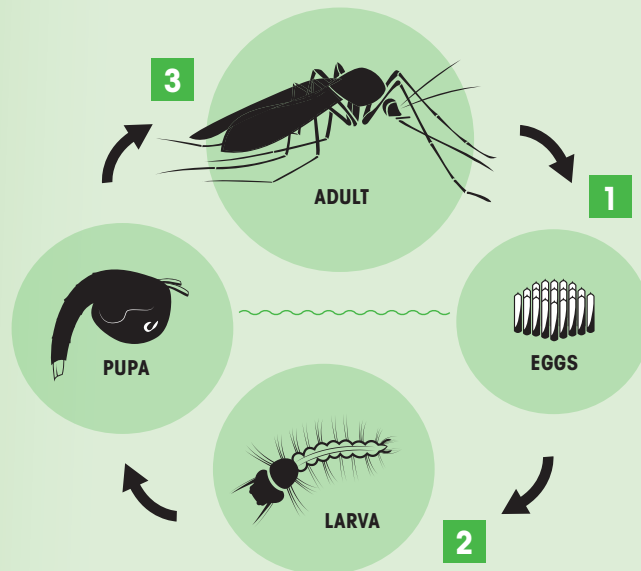
A Special Advertising Supplement

Mosquitoes 101

1 Females of most mosquito species **LAY THEIR EGGS IN WATER** — usually stagnant.

2 The egg, larva and pupa stages mostly occur in the water, **TAKING AS FEW AS 3-5 DAYS.**

3 After escaping from its pupa (or cocoon), the adult mosquito **CAN LIVE SEVERAL MONTHS.** Both the male and female eat nectar, but in many species, the **FEMALES ALSO NEED BLOOD** to produce eggs.



There isn't just one kind of mosquito — **3,500 SPECIES** have been found around the world.

13 SPECIES are most common in southern Stanislaus County.

2 mosquito species can **SPREAD WEST NILE VIRUS:** *Culex pipiens* and *Culex tarsalis*.

INVASIVE SPECIES can spread new diseases, such as Zika, dengue and chikungunya.

Mosquitoes may be tiny, but they represent a big threat to humans because of the deadly diseases they can carry, such as West Nile virus. The more we know about them, the more we can do to stop them.

Keep reading to learn how the Turlock Mosquito Abatement District and you can FIGHT THE BITE!

Mosquito hot spots

As a rule of thumb, any place where water collects and doesn't move can be a breeding ground for mosquitoes. Regularly empty water from these common sources around your home:



- Neglected swimming pools
- Tires
- Clogged gutters
- Bird baths
- Bottles and cans



- Outdoor clutter
- Fountains
- Ponds
- Marshes



- Barrels
- Catch basins
- Toys
- Buckets
- Flower pots



- Dairy lagoons
- Troughs
- Headgates
- Over-irrigation
- Ditches

CHANGED IN AN INSTANT

Turlock man suffers coma, paralysis after contracting West Nile virus

BY EVAN TUCHINSKY

In Spider-Man comic books and movies, Peter Parker can pinpoint the exact moment he got the bug bite that changed him forever.

Danny Stonebarger's life isn't Hollywood. He's a real estate agent living in Turlock, married with two college-aged children. He has no idea exactly when a mosquito carrying West Nile virus bit him. All he knows is he's been suffering the effects of that bite ever since.

"A lot of people run from hornets," he says. "Now I run from mosquitoes."

In 2011, Stonebarger felt like he had the flu, then he developed a headache. After a week his vision blurred and he passed out several times. His son, Zachariah (now 19), and wife, Casey, took him to the hospital.

He remembers reaching the

admitting area for the emergency room, "but that was it for 31 days — I was in a coma."

Stonebarger was transferred to the University of San Francisco, where he was diagnosed with West Nile virus, a potentially deadly disease that causes severe symptoms in less than 1 percent of infected people. The Turlock Mosquito Abatement District trapped several infected mosquitoes on his property and found a dead, infected crow in his neighbor's yard.

He came out of the coma unable to speak, with his left side paralyzed. The man who weighed 240 pounds got as light as 157.

With the disease still relatively new to medicine, he wondered: Is this how I'm going to be?



Danny Stonebarger and his wife, Casey, still experience the after-effects of Danny's battle with West Nile virus, which caused paralysis in his throat that makes it difficult to eat. PHOTO BY CHELSY LEANN PHOTOGRAPHY

"A LOT OF PEOPLE RUN FROM HORNETS. NOW I RUN FROM MOSQUITOES."

DANNY STONEBARGER
West Nile virus victim

Not forever — after a year of rehabilitation, Stonebarger relearned how to walk and talk. He still has physical weakness and days when he tires easily. Because of paralysis in his throat, it can take him over an hour to eat a meal.

"It's affected everybody," he says

— including Casey, Zachariah and daughter Anissa (22).

That's why he insists on mosquito repellent, especially for kids, citronella candles and staying indoors at dusk.

"[West Nile] is terrible," he says. "It's nasty stuff."

What is IVM?

Mosquito abatement is more than killing mosquitoes. The Turlock Mosquito Abatement District uses an approach called integrated vector management (IVM). It consists of five "tools" that are used together to reduce the mosquito population.

1. SURVEILLANCE

Setting up traps across the district, biologists gather samples of mosquitoes — both as larvae and adults — and test potential disease carriers for West Nile and other dangerous viruses.

2. PHYSICAL CONTROL

The district monitors and responds to reports about locations with standing water. When possible the physical removal of water is encouraged to eliminate mosquito breeding sites.

3. CHEMICAL CONTROL

For a wider reach, the district uses EPA-approved products from trucks and planes to kill adult mosquitoes and larvae.

4. EDUCATION AND OUTREACH

The district works to inform every resident about mosquito abatement through publications and presentations.

5. BIOLOGICAL CONTROL

Mosquitoes have natural enemies. The district uses "mosquitofish" (of the species *Gambusia affinis*) for this purpose. Residents can get mosquitofish straight from the district's pond.



The facts on spraying

The Turlock Mosquito Abatement District has taken to the skies again to protect southern Stanislaus County from disease-carrying mosquitoes. The district had stopped aerial spraying, but had to restart in 2015 after finding out that mosquito species developed resistance to the chemical that the state allows to be sprayed from trucks (pyrethrin).

BE IN THE KNOW!

Residents who would like to know about aerial spraying can find notifications at www.turlockmosquito.org or on Twitter @Turlock_MAD

ON THE WING

A nozzle behind each engine shoots out the naled spray from a tank in the plane. The propeller's motion helps target the spray. Naled is only approved for use in aerial spraying.



FROM THE ROAD

Sprayers mounted on land vehicles have a range of about 300 feet, so ground operations only can reach the edges of large properties. Aerial spraying is better for targeting hard-to-reach areas.



IN THE SPRAY

The insecticide falls in a cone-shaped spray over the area targeted by the pilot and quickly kills the mosquitoes it contacts. Naled has been tested and labeled safe for humans and pets by the Environmental Protection Agency.





KEEP MOSQUITOES AWAY! (AND THE DISEASES THEY CARRY)

Along with the usual suspects of dangerous mosquitoes, Turlock Mosquito Abatement District personnel are keeping a close watch for invasive species that have surfaced in nearby counties. These newcomer mosquitoes can carry viral diseases — yellow fever, dengue fever, chikungunya and Zika.

Monica Patterson, the district's Vector Biologist, says: "If we can prevent the invasive Aedes species from becoming established, hopefully, we can reduce the opportunity for these viruses to become established."

Help the district keep these and other diseases from spreading in our community. Mosquito abatement is a group effort, and you can help!



Connect With Us Today!

- Service requests
- Spraying notification
- Report dead birds/neglected pools
- Educational presentations



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Turlock Mosquito Abatement District



www.turlockmosquito.org



Get your mosquitofish!

Keep mosquitoes from breeding in your ponds and troughs with mosquitofish. Mosquitofish may be picked up at our office or requested online at turlockmosquito.org or by calling 209-634-1234.

