

Mosquito Control Matters

FIGHT THE BITE

Current Issues and Challenges Related
to Mosquito Control

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Public Information Officer

Mission: Protect Public Health

- To provide safe, effective and economical mosquito and vector control. To accomplish this, we provide ongoing surveillance of mosquitoes and other vectors to determine the threat of disease transmission and lower annoyance levels.
- District operates under the California Health and Safety Code



District Mosquito Species

- In California there are 50 mosquito species
- Within the District we have 27 different species
- Different types of habitats, behavior, blood sources
- Mosquitoes are year-round, but most active April-October



Mosquito Life Cycle



Egg Raft



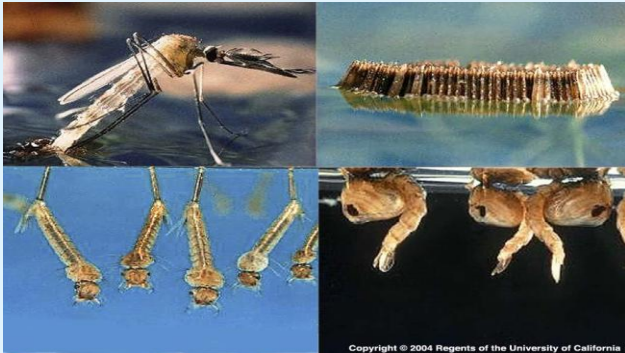
Larva



Pupa



Adult Mosquito



- Mosquitoes have 4 development stages
- Immature stages require water stagnant

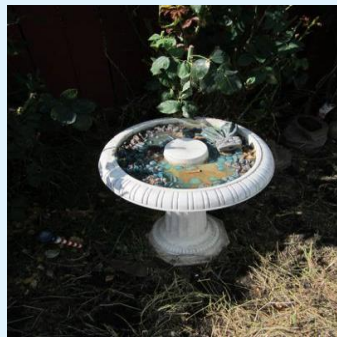
Different Mosquito Habitats



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Backyard Mosquito Sources



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Integrated Mosquito Management Approach

- Public Information
- Surveillance
- Biological Control
- Ecological Management
- Chemical Control



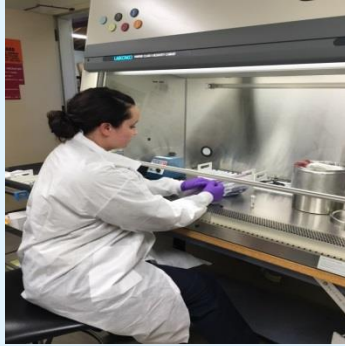
Public Information and Advertising



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Laboratory Surveillance



Fisheries Program



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Ecological Management



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Control Operations



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What Diseases Can Mosquitoes Carry?

West Nile Virus

**** The most prevalent disease in the United States and permanently established in our area and throughout the state ****

Dengue Fever

Malaria

Chikungunya

Zika virus

Dog Heartworm

West Nile Virus Symptoms

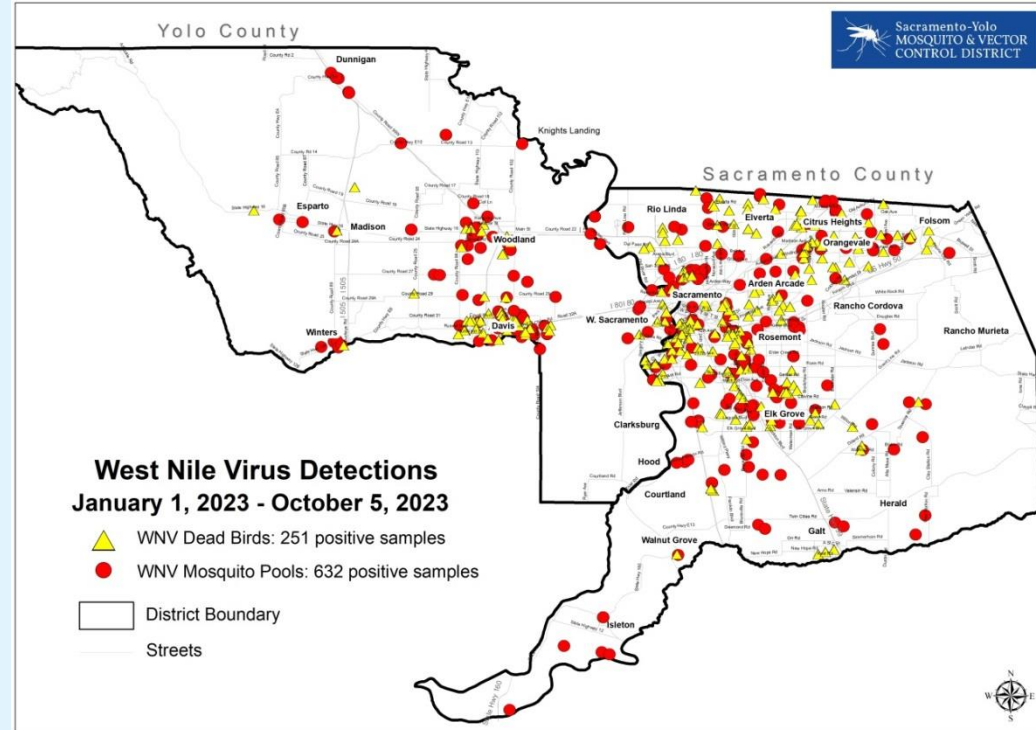
20% of people develop West Nile Fever. Approximately 2 to 14 days after being bitten you can have these symptoms:

- **Fever between 101°-106° degrees**
- **Headaches, body aches**
- **Fatigue**
- **Rash on your skin**
- **Possible pain around the eyes**
- **Possible swelling of the lymph nodes**

Only 1 in 150 people develop the severe form of the disease including meningitis or encephalitis.

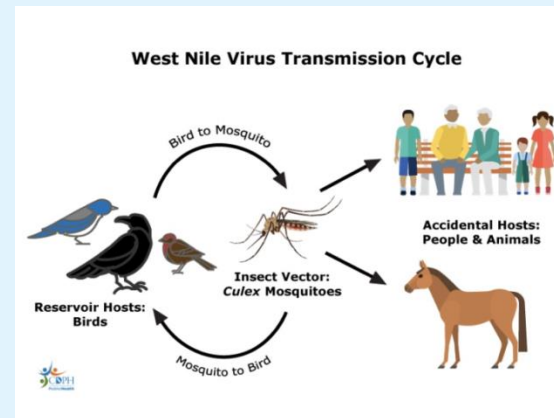
West Nile virus Activity

Human Cases of WNV	2023	2022	2021	2020
Sacramento County	53	5	6	9
Yolo County	39	3	4	5



WNV Activity in California

<u>Year</u>	<u>Human Cases</u>	<u>Potential Cases</u>
2023	428	12,000-30,000
2022	208	6,000-15,000
2021	126	3,000-9,000
2020	231	6,000-15,000
2019	225	6,000-15,000
2018	218	6,000-15,000
2017	536	16,000-37,000
2016	442	13,000-30,000

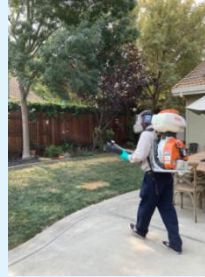


****WNV is extremely under reported. The Centers for Disease Control estimates that for every neuroinvasive case confirmed, there are approximately 30-70 cases that are not reported****

New Concern: Invasive Mosquitoes

Aedes aegypti and *Aedes albopictus* (Yellow Fever Mosquito and Asian Tiger Mosquito)

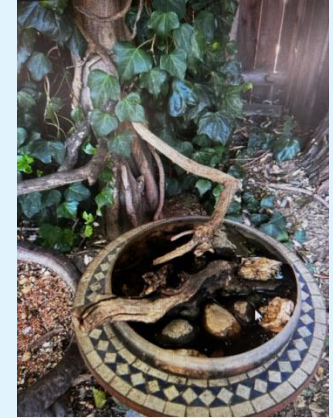
- An aggressive day biting mosquito that prefers to bite humans.
- They especially like to bite ankles, wrists and elbows
- Prefers to live in urban areas both indoors and outdoors
- Can breed in as little as 1 teaspoon of water and can complete life cycle in 7-10 days
- Eggs are laid on the side of containers and are resistant to drying out. They can survive without water for many months
- Capable of transmitting several debilitating diseases including Zika, dengue and chikungunya



Common Invasive Mosquito Breeding Sources



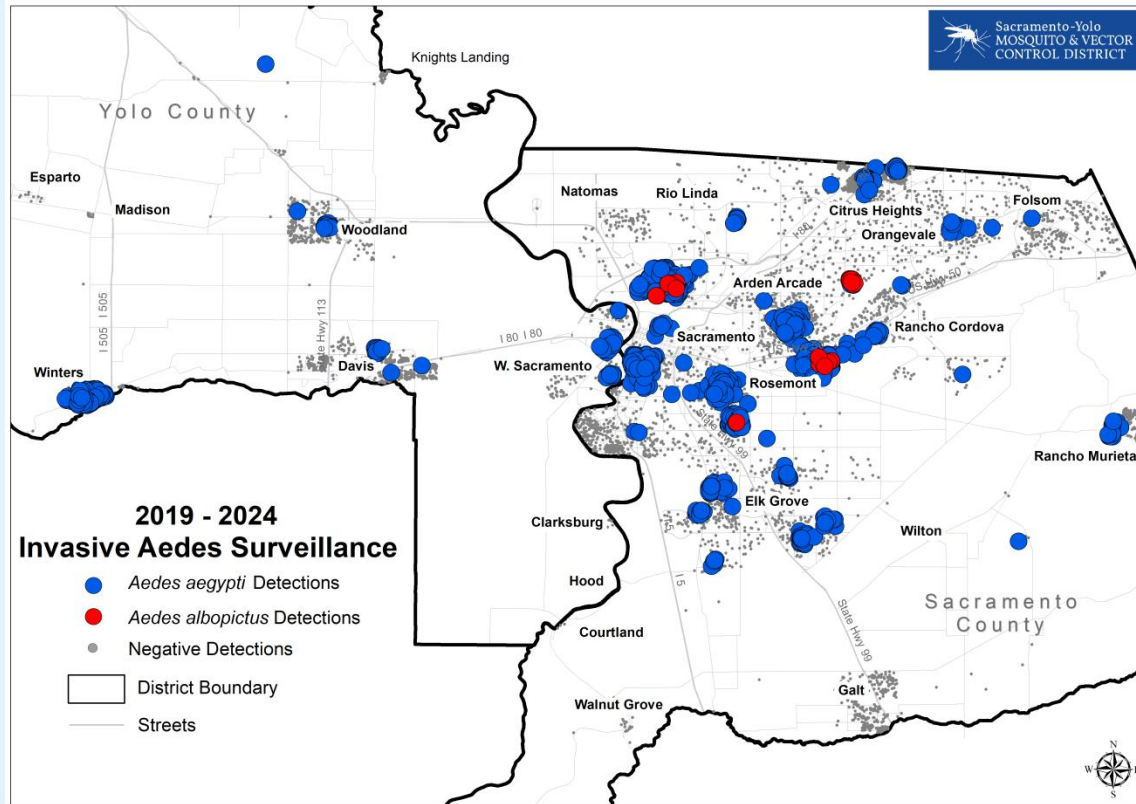
What we are finding



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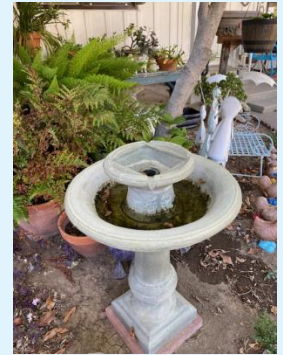
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Detections of Invasive Mosquitoes



Recommendations

- Remove saucers from under plants
- Cover bins, buckets, and tubs with fitted lids
- Fill rims of pots with sand
- RE-direct sprinklers so containers are not filled
- Scrub containers, bird baths, and other backyards items to eliminate eggs
- Be careful with rooting plants
- Do not share plants
- Try to not move containers from one place to another



Lastly....What Can You Do?

Follow the District D's of Prevention

- **DRAIN** Standing Water
- **DAWN** and **DUSK** Are Times To Avoid Being Outdoors
- **DRESS** In Long Sleeves & Pants When Outside
- **DEFEND** Yourself With An Effective Repellent
- **DOORS** and Screens Should Be In Good Working Condition
- **DISTRICT** Personnel Are Available To Help

Thank you!



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