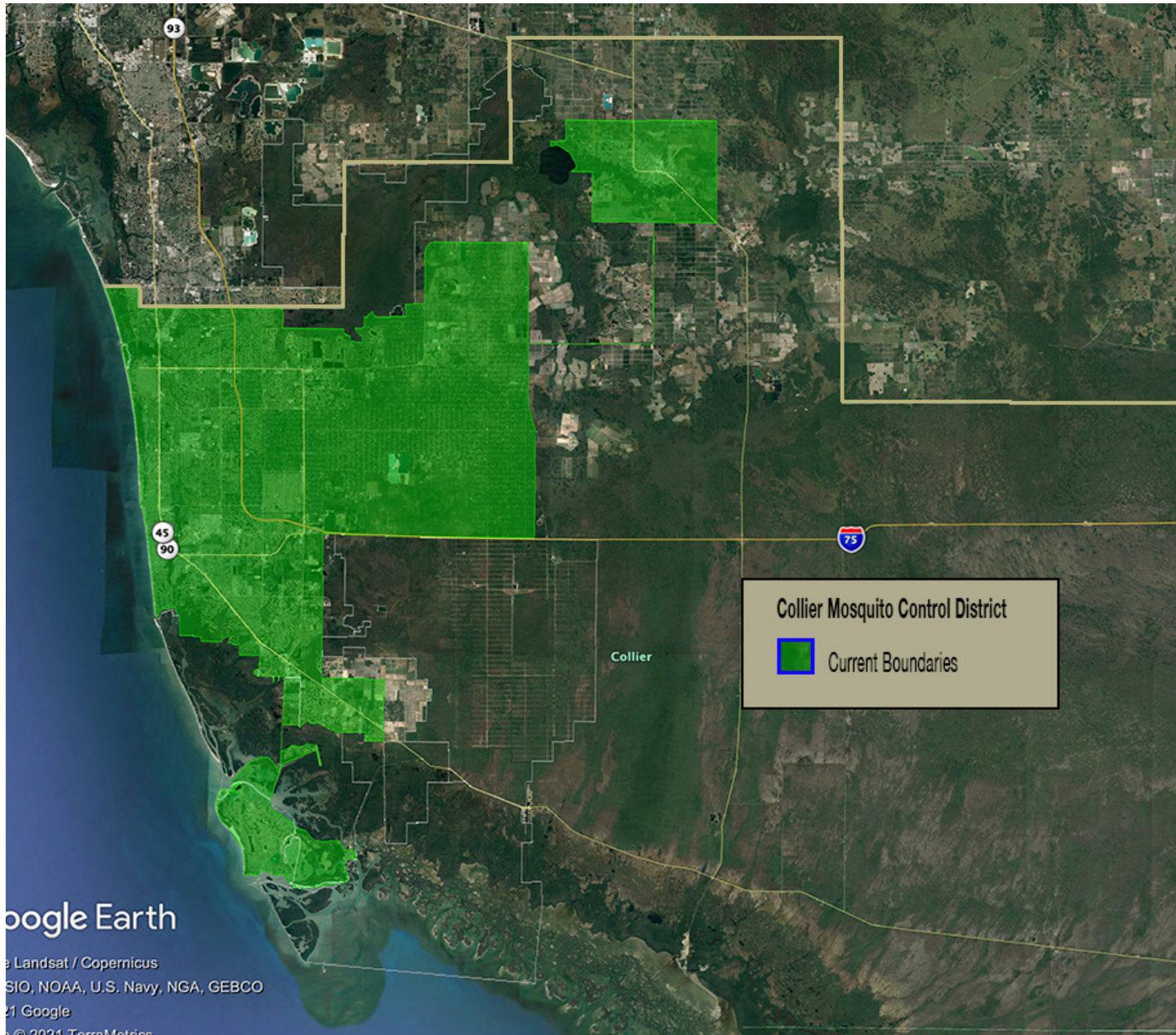


Collier Mosquito Control District

PROTECTING PUBLIC HEALTH AND COMFORT

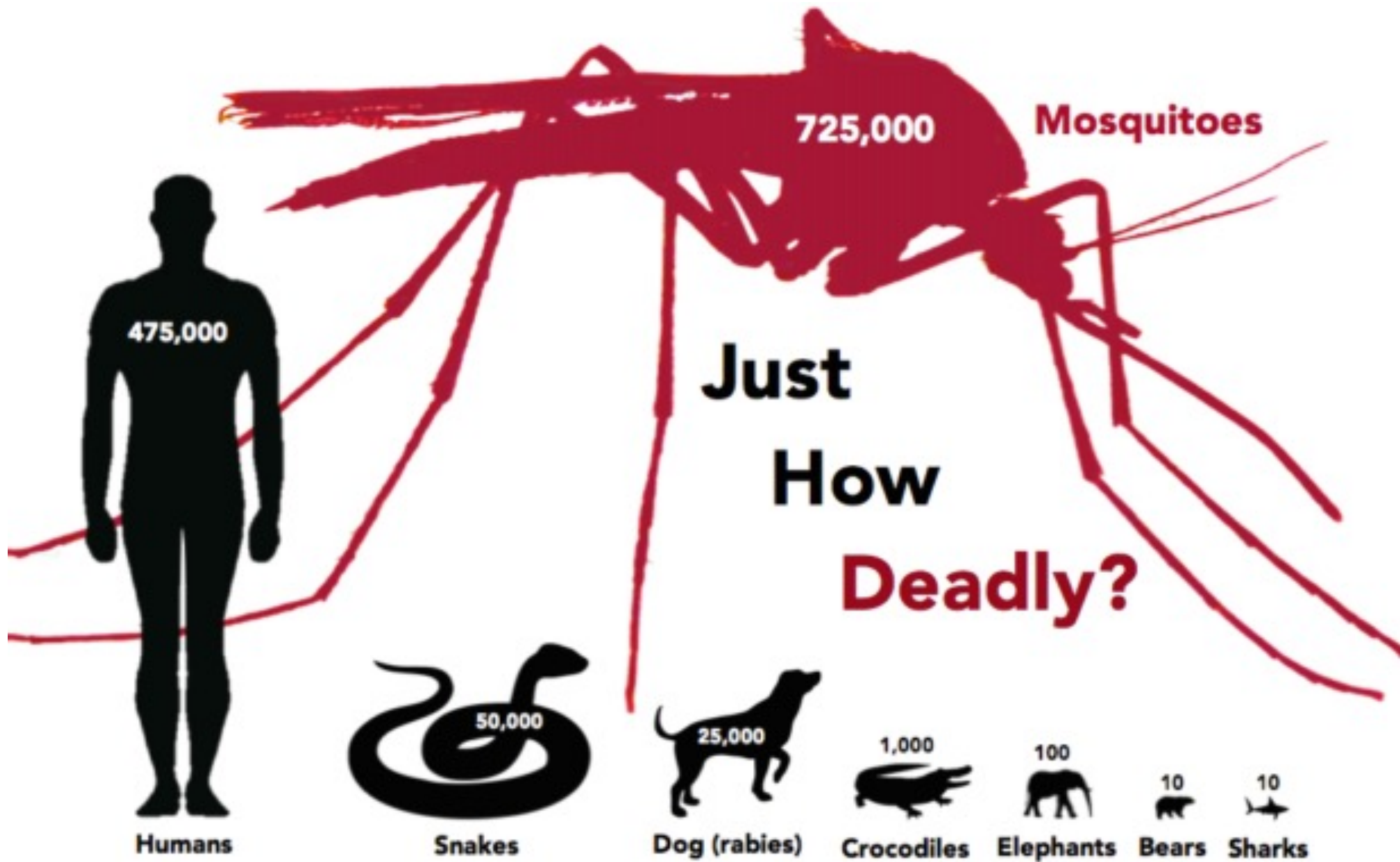
COLLIER RESERVE • FEBRUARY 29, 2024

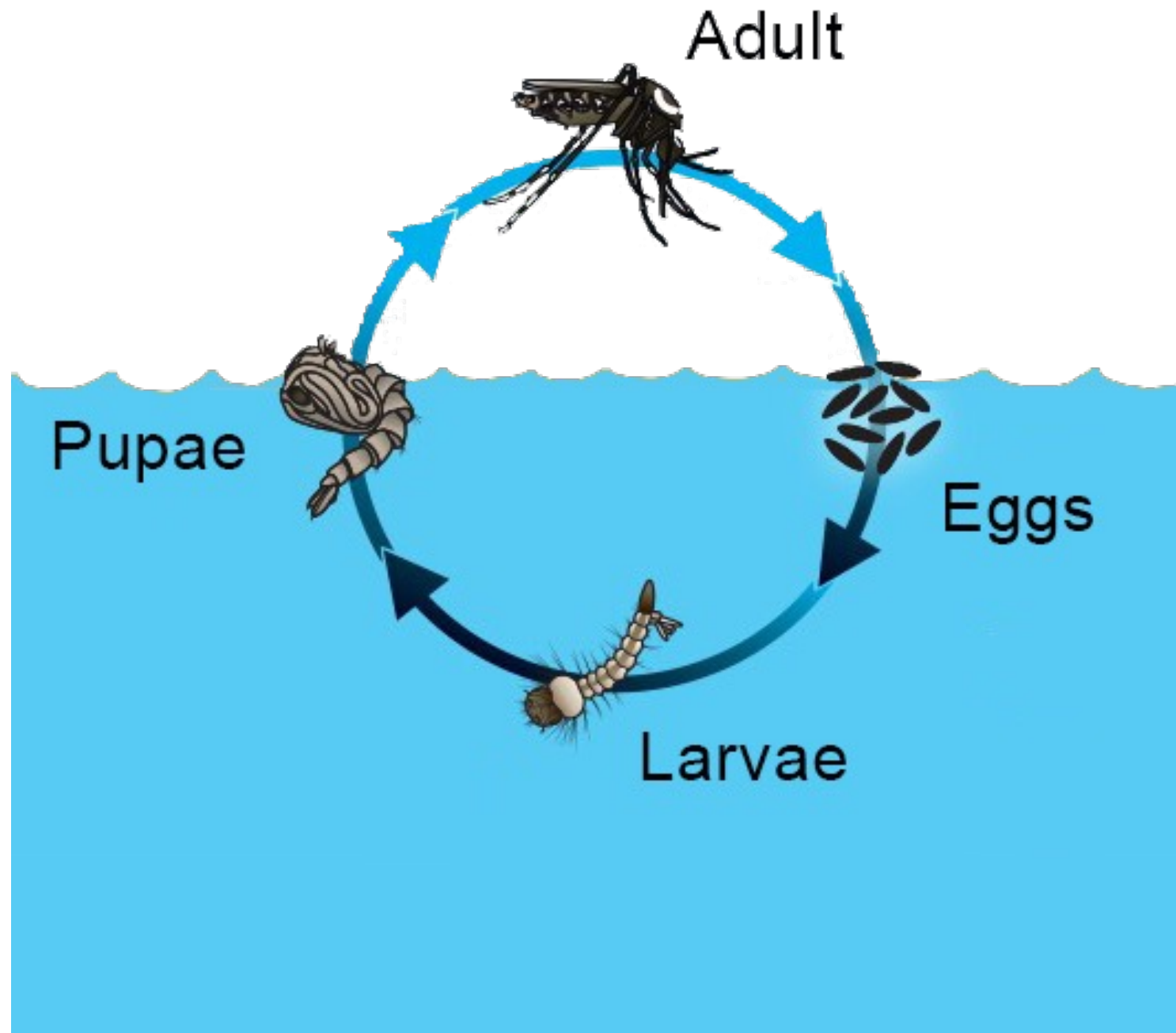




WHERE

- 401 square miles
- Seasonal changes
- Ave Maria





SWFL mosquito species of concern

Disease Carrying (human)	Nuisance
<p><i>Aedes aegypti, albopictus, scapularis</i> Zika, Chikungunya, Dengue Fever, Yellow Fever</p> <p><i>Culex nigripalpus, quinquefasciatus</i> SLE, West Nile Virus, EEE</p> <p><i>Anopheles spp</i> Malaria</p>	<p><i>Aedes taeniorhynchus</i> Dog heartworm</p> <p><i>Mansonia spp</i> Dog heartworm</p> <p><i>Psorophora spp</i></p>



50+ mosquito species identified in Collier

Mosquito swarm kills cows

By DENES HUSTY
News-Press Staff Writer

East Naples rancher William Langford says that in his 11 years of raising cattle, he's never come across such a problem before—cows being killed by swarms of mosquitoes.

Langford said mosquitoes were responsible for killing two cows and a small bull of his last week.

Langford, 62, said a cowboy who works for him was checking the fence of an East Naples pasture, where 61 head of cattle were being kept, when he came upon the dead animals.

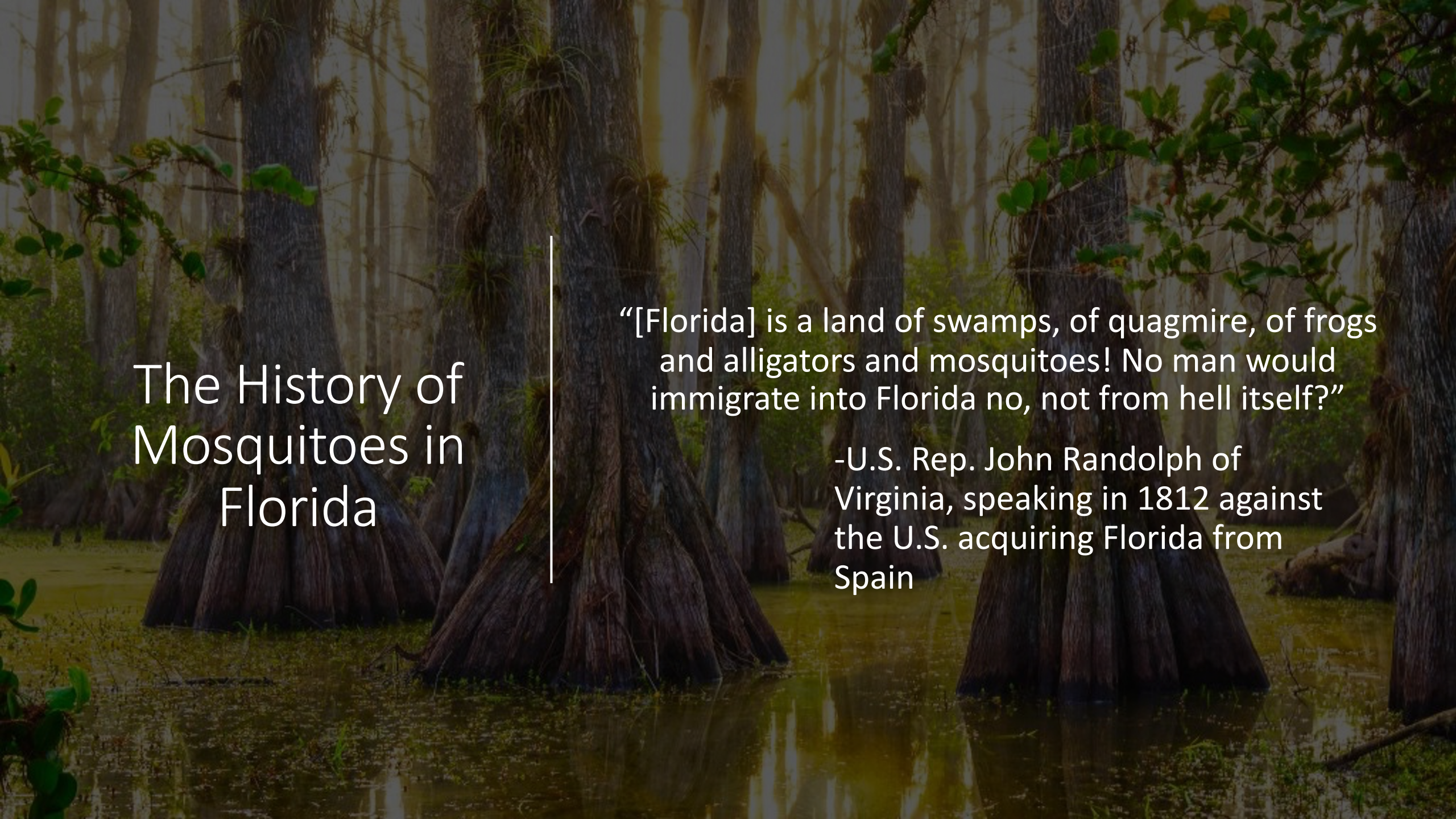
Langford said he and his hired hand assumed that the animals had been killed by lightning, but called local veterinarian David Randall to inspect the bodies and verify the cause of death. The rancher said the animals were worth a total of about \$1,250 on the market.

On the same day the animals were found, the veterinarian performed necropsies on the bodies and determined that they had not been killed by lightning, Langford said.

"There were no bruises or any signs of physical damage," Langford said.

Randall said he could find no evidence that the animals had been killed by lightning or died from an



The background of the slide is a photograph of a swampy landscape. It features several large, dark, buttressed tree trunks, likely cypresses, standing in shallow water. The water is a murky green color, and the overall scene is dimly lit, creating a moody atmosphere. The text is overlaid on this background.

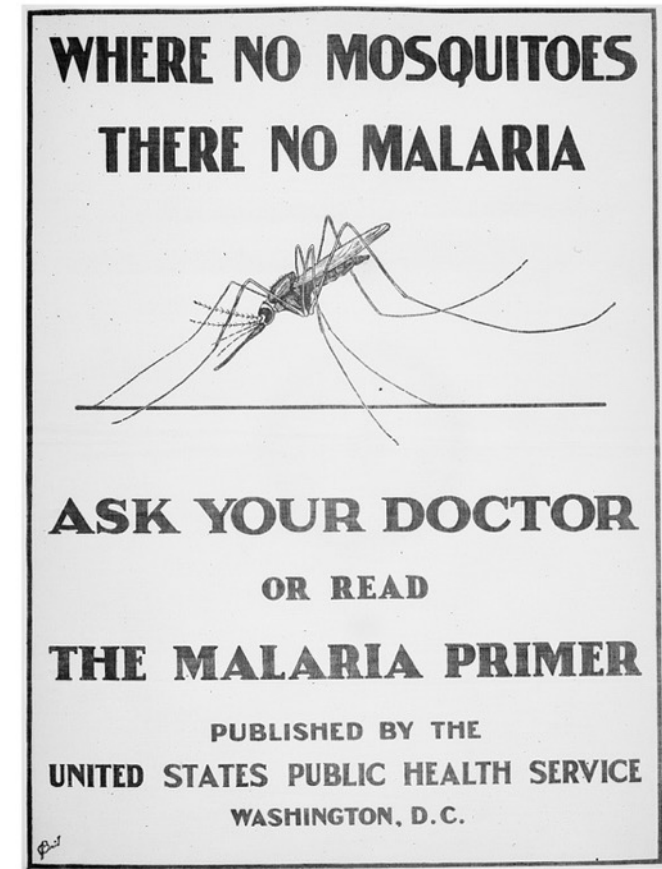
The History of Mosquitoes in Florida

“[Florida] is a land of swamps, of quagmire, of frogs and alligators and mosquitoes! No man would immigrate into Florida no, not from hell itself?”

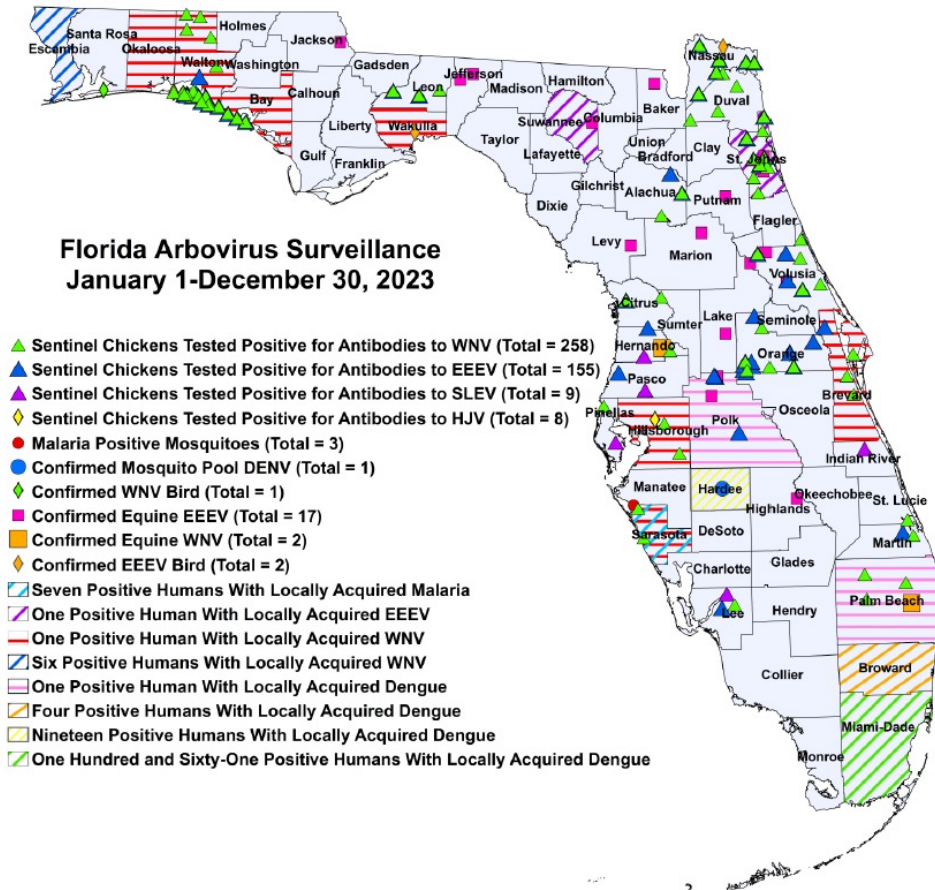
-U.S. Rep. John Randolph of Virginia, speaking in 1812 against the U.S. acquiring Florida from Spain

Mosquito-borne disease in Florida

- ❑ Epidemics of yellow fever common throughout the state of Florida in the 1800's
- ❑ The major cities of Jacksonville, St. Augustine, Tallahassee and Pensacola were known as the "malaria belt."
- ❑ Communicable Disease Center (CDC) in 1946 to work on malaria. Located in Atlanta due to malaria presence.
- ❑ Malaria was eradicated from Florida by 1948.



Mosquito-borne disease in Florida, 2023



2023 was the first outbreak of Malaria in Florida in 20 years (7 cases)

Mosquito-borne illness alert lifted for Malaria due to aggressive mosquito control efforts – considered a victory

Dengue virus continues to spread in South Florida (186 cases)

Local transmission in Collier County in 2022

WHO



MISSION

The District's mission is to provide valuable service to the community through suppression of both disease carrying and nuisance mosquito populations by and through the safest and most economical means available. The District uses a variety of methods (Integrated Mosquito Management) in a manner consistent with the highest level of safety and minimal adverse impact on humans, wildlife, the environment, and non-target organisms.

CMCD Board of Commissioners



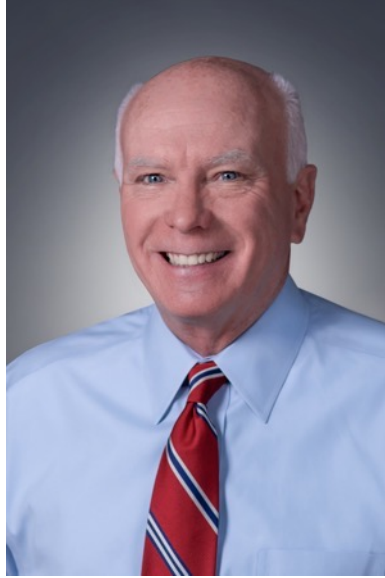
BUXTON



JOHNSON



BRANDT



BURLAND

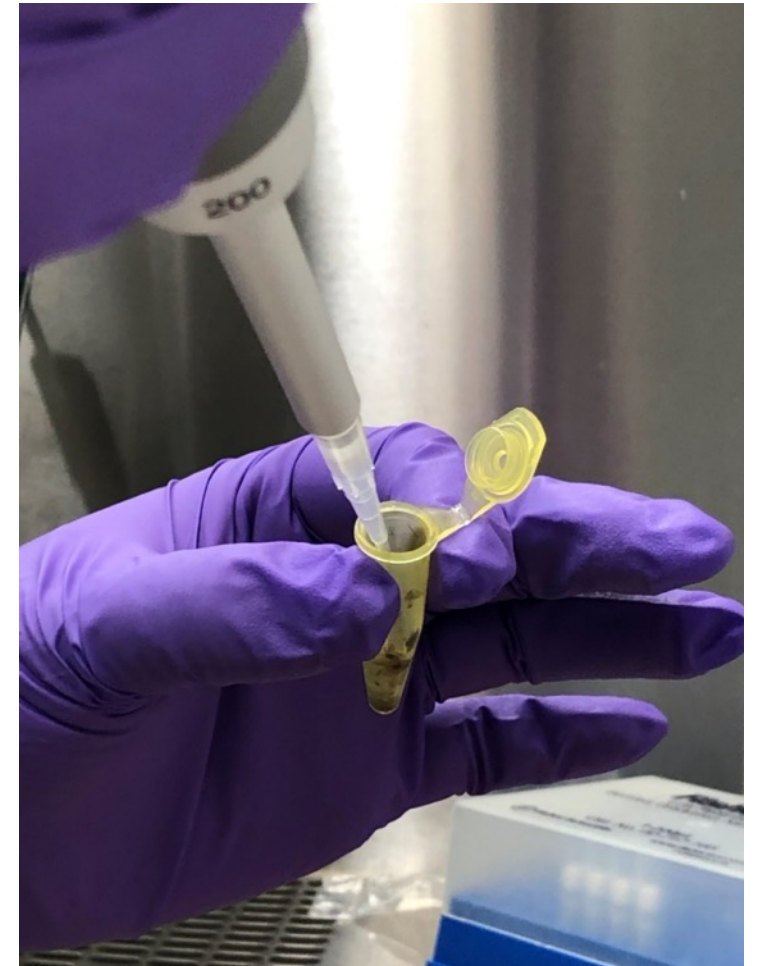
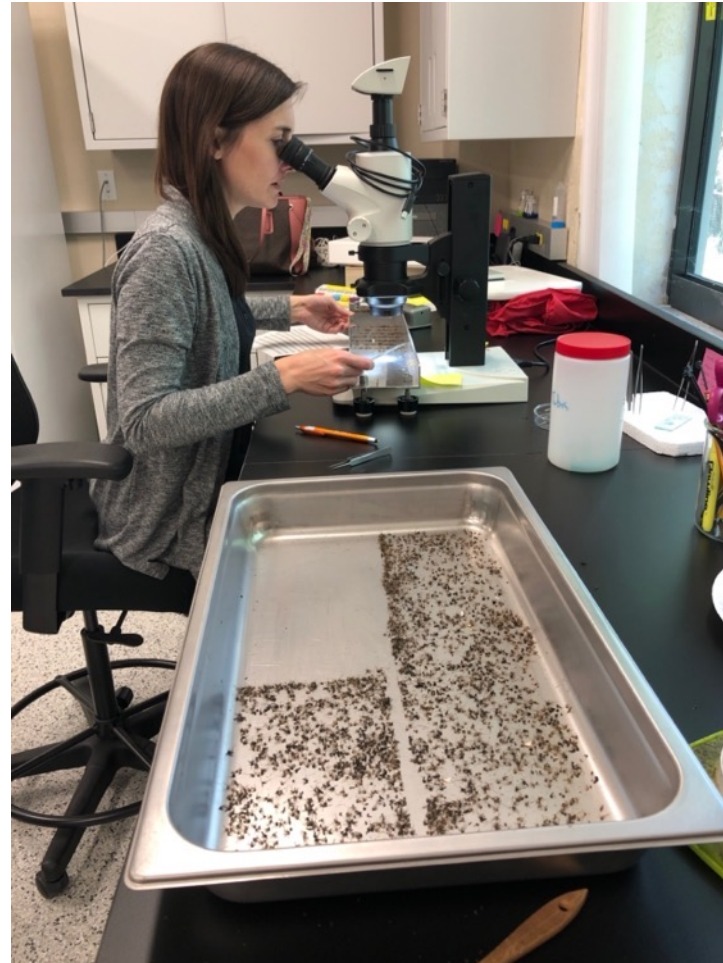


BUCHANAN

HOW: Integrated Mosquito Management



Sorting for testing



Biological control



2023 Fleet – larval mosquito control



Other application tools



Other application tools



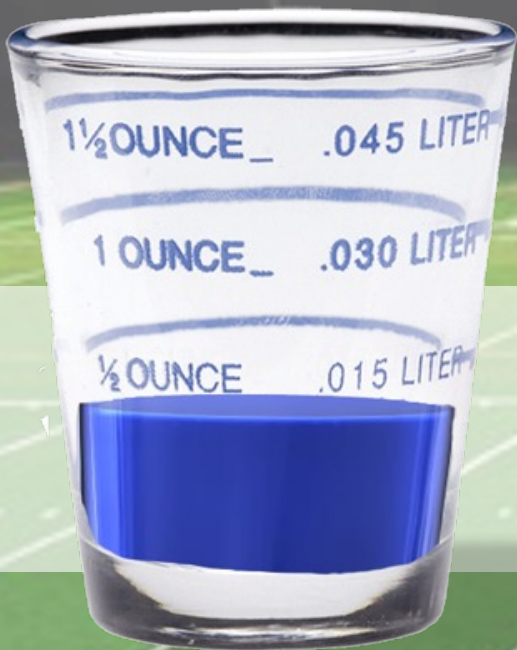
Source reduction





Application advancements





2023

Aerial treatments use less than 1 ounce of material per acre

2023 Fleet- adult mosquito control



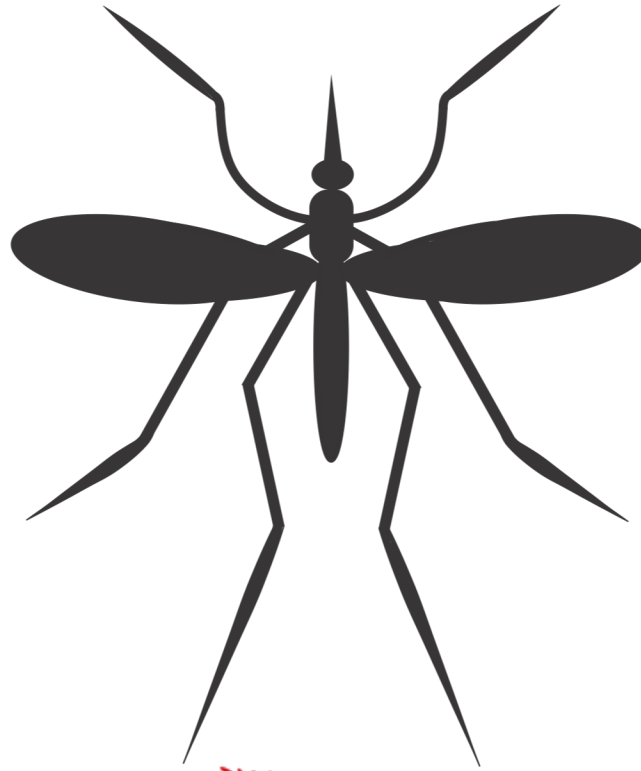
CMCD Integrated Mosquito Management

66%

Gallons of Organophosphates dispersed since 2015

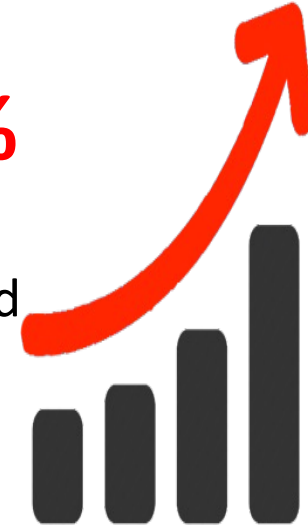
3,290

Students reached in classrooms during 2022



1,528%

Increase in acres treated for larvae since 2015



Increase in gallons of Pyrethroids dispersed since 2015

901%

1

Case of locally transmitted Dengue in 2022



3k

Mosquitofish distributed in 2022

OMRI

OMRI-listed control materials



3

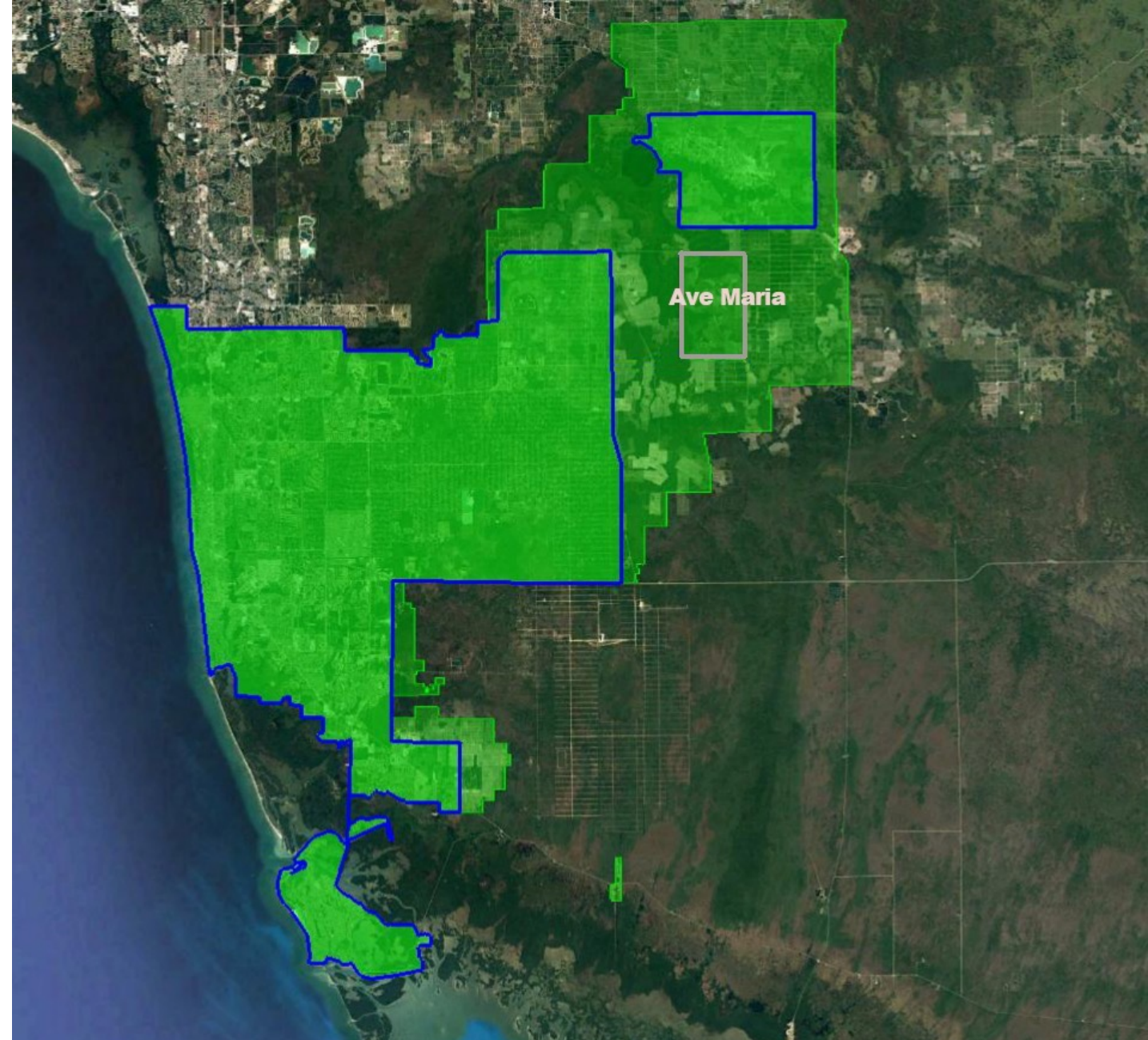
UAVs for mosquito surveillance and treatment

28

Automated counters in the field

Expanding to meet planned growth

- ❑ County leadership planning for population growth now
- ❑ Residential areas expanding to the east
- ❑ Threat from mosquito-borne disease is projected to increase
- ❑ Excessive mosquito populations in areas adjacent to inhabited areas
- ❑ New or changing threats to public health



Expansion Benefits



- Mosquito control services in Naples Reserve provided by the Collier Mosquito Control District would include:
 - Daily surveillance activities
 - Mosquito-borne disease testing
 - Pesticide resistance management
 - Domestic Inspections
 - Source identification and reduction
 - Mosquito fish
 - Preventative barrier treatments
 - Ground and aerial-based larvicide
 - Ground and aerial-based adulticide
 - Arthropod Management Plans

Expansion Updates, 2024

- ❑ **July 12th, 2021:** Resolution #10 2020-2021 passed CMCD Board of Commissioners
- ❑ **November 9th, 2021:** Resolution #2021-237 passed Board of County Commissioners
- ❑ **August 23rd, 2022:** Mosquito Control Referendum - 71% approval of the expansion by residents in the proposed expansion areas
- ❑ **December 6th, 2022:** Local Bill approved by Collier Legislative Delegation for the 2023 Legislative Session
- ❑ **2023 Legislative Session:** Local Bill sponsored by Representative Lauren Melo
 - ❑ Bill not heard in the Local Administration, Federal Affairs and Special Districts Subcommittee (Chair, Representative Jenna Persons-Mulicka)
- ❑ **September 11th, 2023:** Local Bill approved by Collier Legislative Delegation for the 2024 Legislative Session
- ❑ **2024 Legislative Session:** Local Bill to be sponsored by Representative Lauren Melo
 - ❑ **Passed** House Local Administration, Federal Affairs and Special Districts Subcommittee.
 - ❑ **Passed** House State Affairs Committee.
 - ❑ **Passed** the House of Representatives.
- ❑ If approved, CMCD charter will be revised to include the new boundaries. New boundaries would take effect **October, 2024**.

WHAT can I do? Defense



- DEET
- Oil of lemon eucalyptus
- Picaridin
- IR3535

WHAT can I do? Drain or cover





OPEN HOUSE

COLLIER MOSQUITO CONTROL DISTRICT

A showcase of the organizations that make Collier County a safe place to live, work and play!

- ✓ Facility Tours
 - ✓ Children's Activities
 - ✓ Airplanes and Helicopters
 - ✓ Community partner displays
 - ✓ Mosquitofish
- and much more!

Collier Mosquito Control District
600 North Rd
Naples, FL 34104

SATURDAY
APRIL 13, 2024
9 AM - 1 P.M.



 239.436.1000

 <https://cmcd.org>



600 North Road, Naples, FL 34104

www.cmcd.org

239.436.1000

