

South Health District Mosquito Surveillance Program

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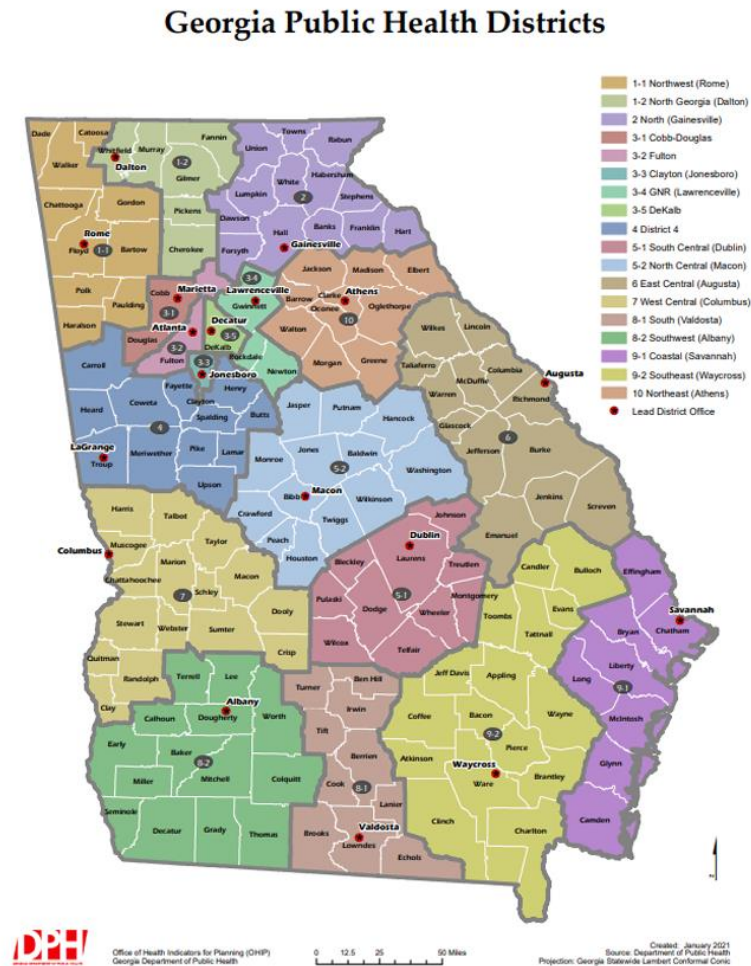
Blake Lowery & Austin Haney

Who Are We?

South Health District

18 Public Health Districts

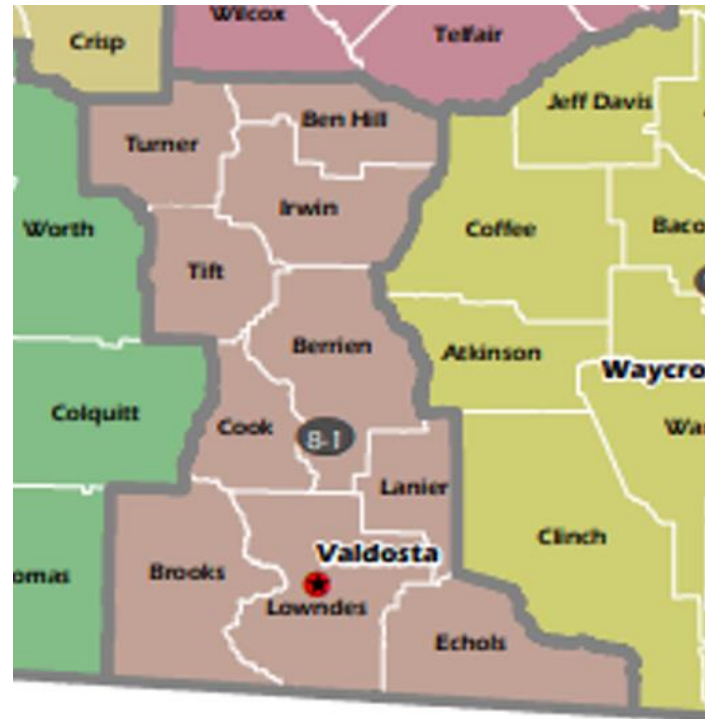
We are 8-1



South Health District

10 Counties

Lowndes is lead county and home to District Office



South Health District

Approximately 220 employees

20 Environmental Health Personnel

Initial Grant

Annex 2

The initial grant was awarded in July 2018 to 7 Public Health Districts

PURPOSE: For District/Local Environmental Health Staff to expand or maintain mosquito surveillance program within a public health district.

Annex 2

Awarded \$294,282 locally

Had to build program from scratch

Who?

What?

When?

Where?

How Long?

Who?

Enlisted 9 DPH personnel to trap full time, 1 floater/logistic coordinator and 1 manger

Contracted with VSU for sorting and viral testing
deliveries made every Friday to VSU for sorting/testing



Where?

Trapping in 9 Counties with 3 locations per county

VSU trapped multiple locations in Lowndes already

When?

Trapping 2 nights per week at 2 locations
1 gravid trap and 1 light trap

What?

Had to purchase all new equipment for trapping
gravid and light traps
hay infusion
dry ice contract with Airgas
safety equipment for dry ice handling



How Long?

This was a 2-year grant that ran from July 2018-June 2020

Trapping started in Oct 2018 and Ended Aug 2020

New Life

New Funding Available

Found out that we were going to be getting additional funding to keep going.

150K for FY 22 & FY 23

Adjustments

Had to eliminate VSU

With savings we added more local EH to budget for ID/sorting

Had to figure out Viral testing

Had to adjust trapping to gravid and 1 day per week

PIVOT....

Funding cut again to 60K per year



New Trapping Plan

- Gravid and CDC traps
- 10/10 counties in our district
- Cut down to 1 night a week



Mosquito Identification

- In-person training from state office
- 4 certified mosquito identifiers
 - 2 for each half of the district
 - 5 counties each (once Lowndes was added)



Viral Testing

- Vector Test Systems Inc.
 - WSE-K050
 - All in one WNV/SLE/EEE Virus Antigen Panel Assay
 - 50 tests from the kit
 - Culex Spp. Mosquitos
 - Vortex mixer
 - Viral testing day process
 - COST



Statewide Impact

Local surveillance added to the broader collection of data across Georgia.

Helps them to better understand the risks of endemic and newly introduced vector-borne diseases

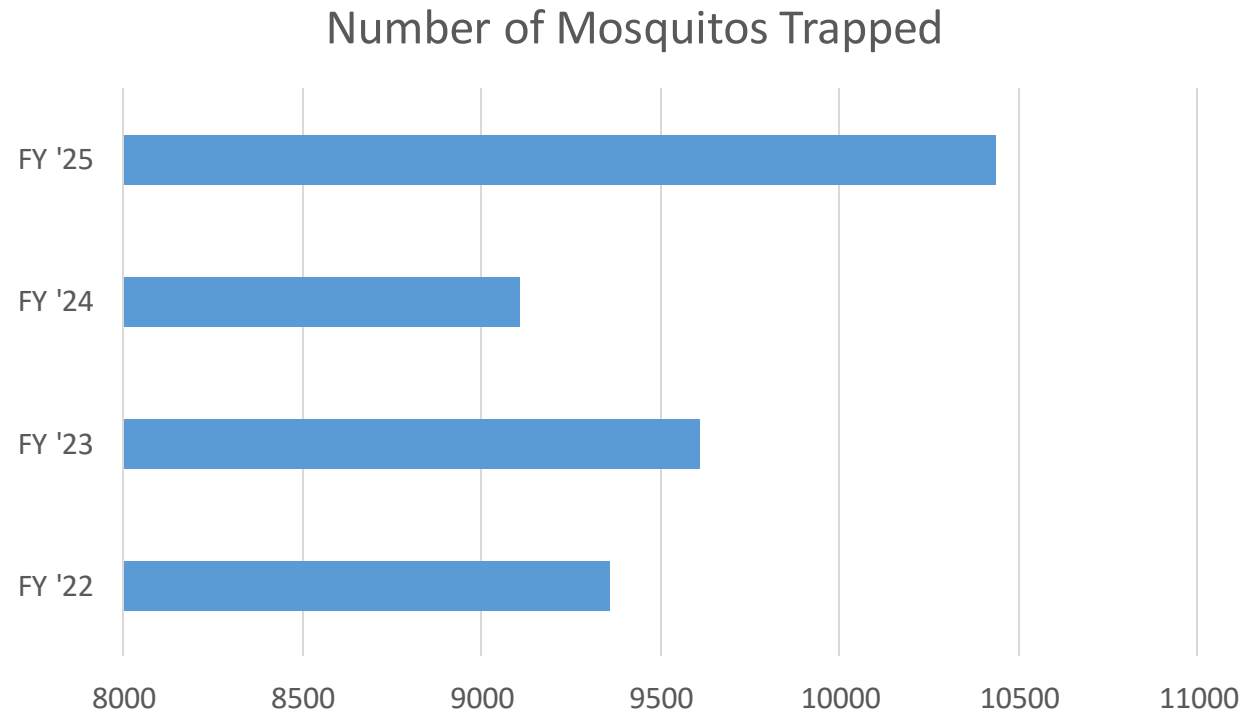
Focus educational messages to support local health departments.

Data

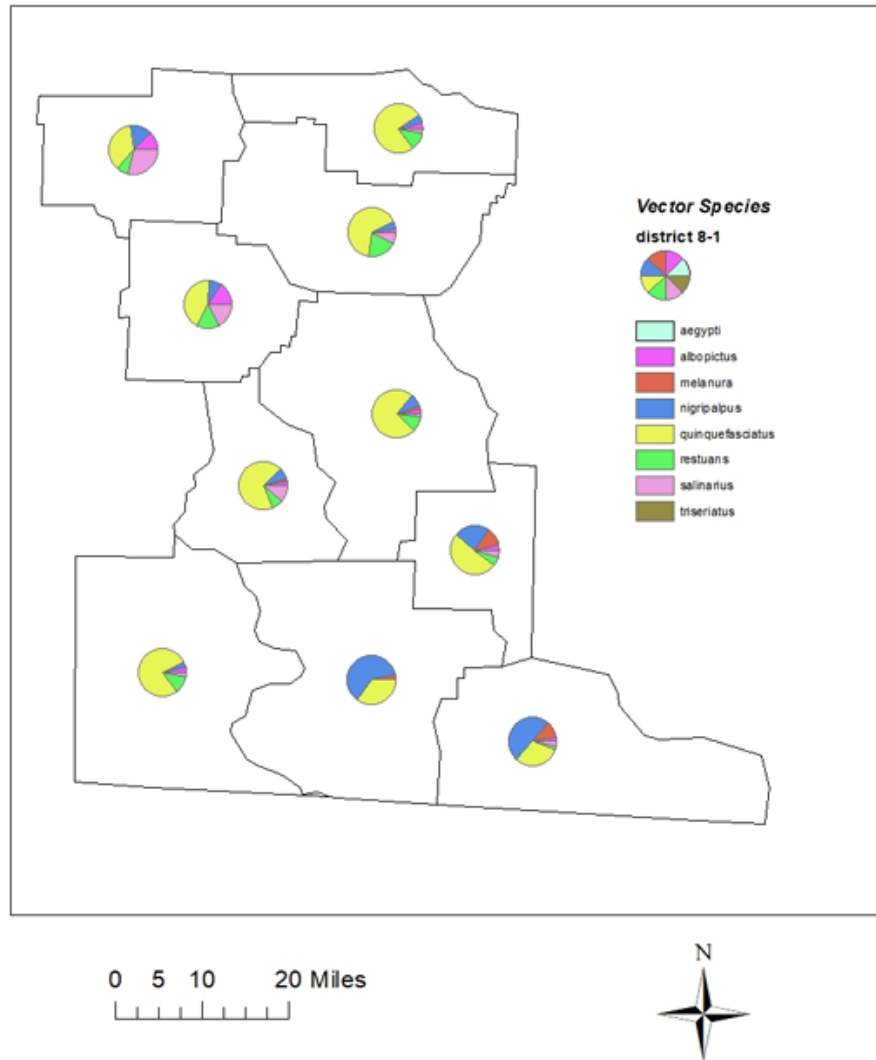
2879 Mosquito Species trapping events since 2021
Positive viral test for WNV in Tift county June 2022

Mosquito Numbers

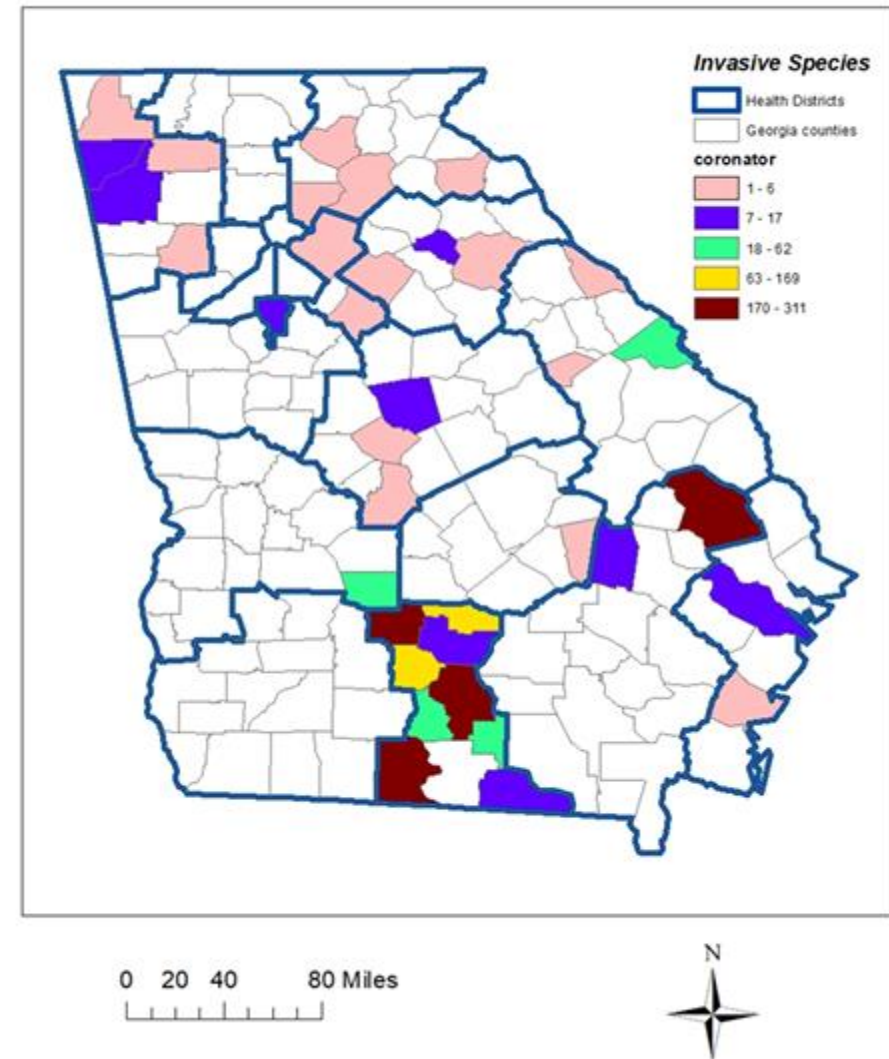
- FY '22 = 9,357
- FY '23 = 9,610
- FY '24 = 9,108
- FY '25 = 10,436



VSC Surveillance Data, 2019



Culex coronator, 2019

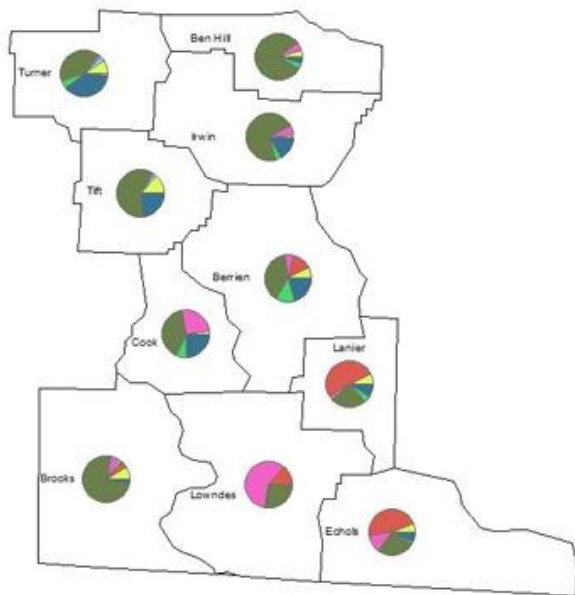


<https://www.gamosquito.org/resources/MosquitoSummaries/MSR3.pdf>

Vector Species by County, 2020

Legend

district 8-1

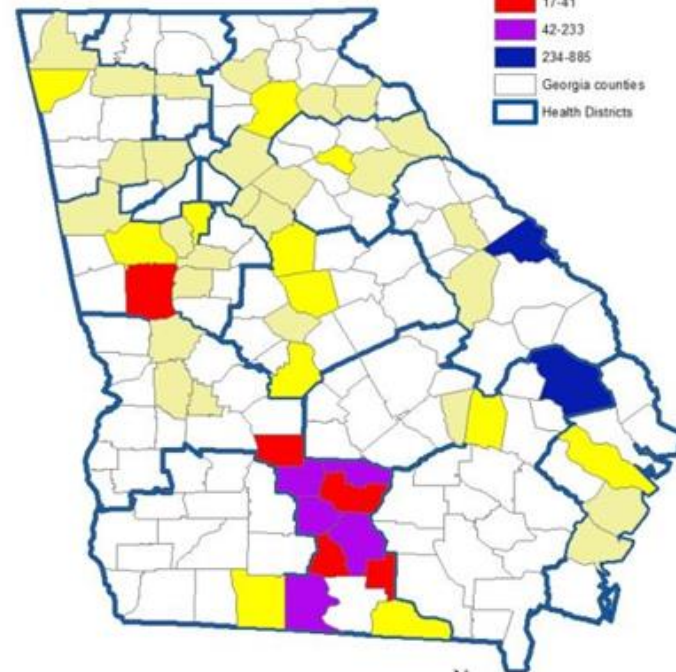


0 5 10 20 Miles



Invasive Species by County, 2020

Legend

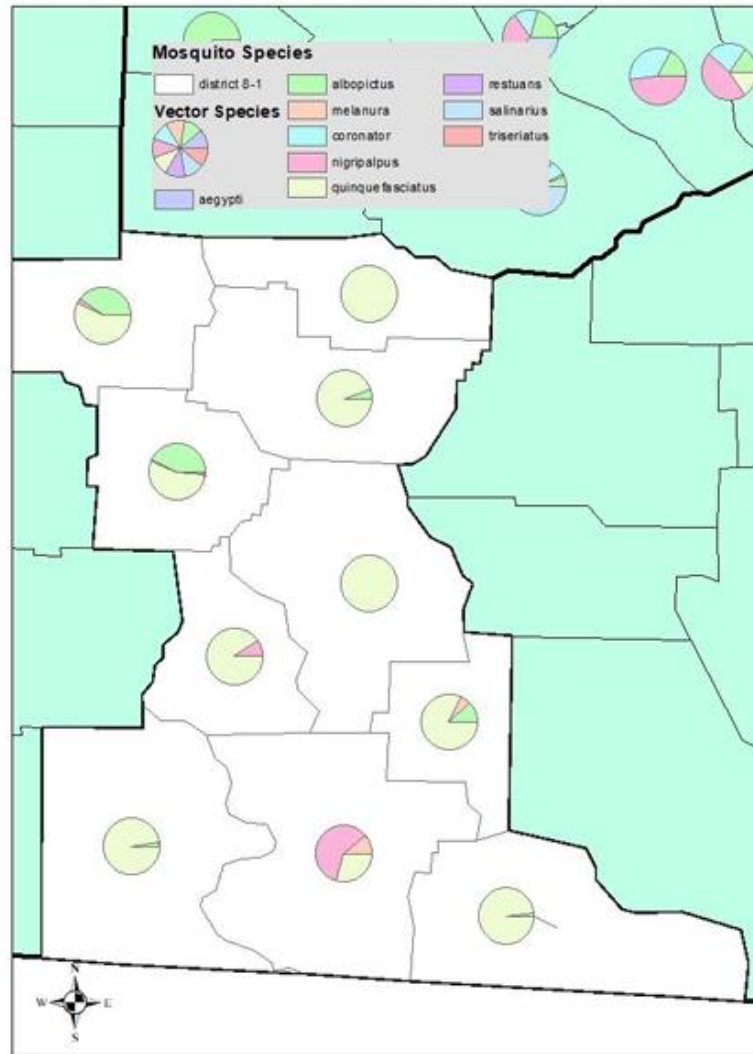


0 25 50 100 Miles

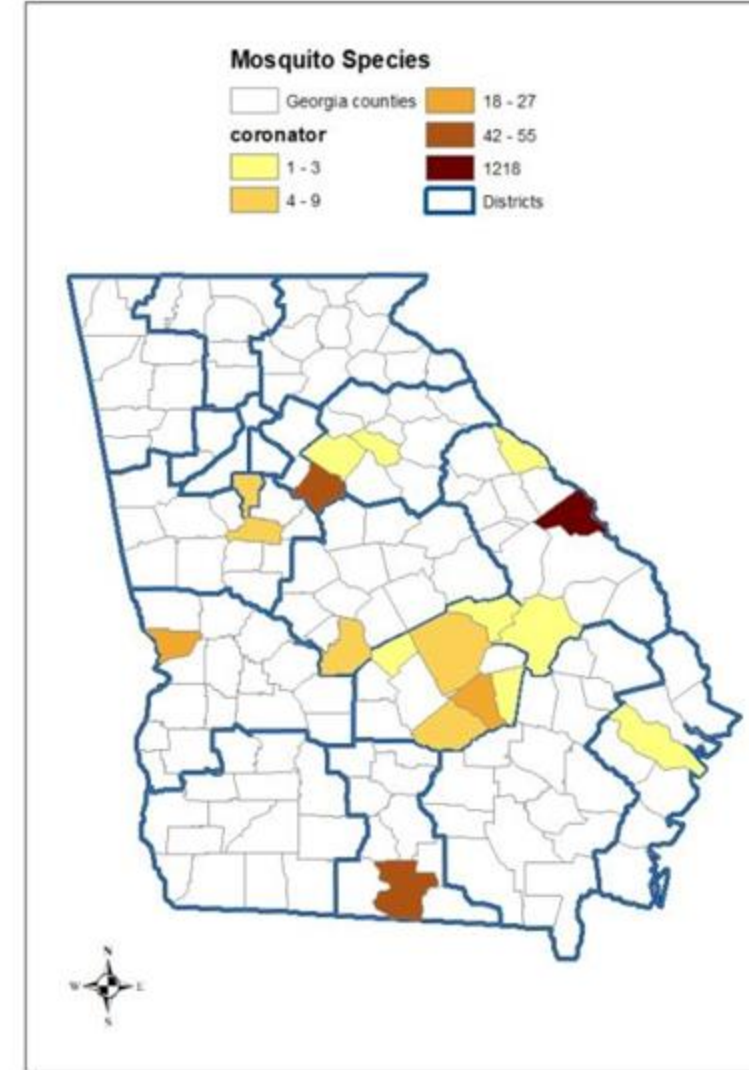


Culex coronator

Vector Species 2021

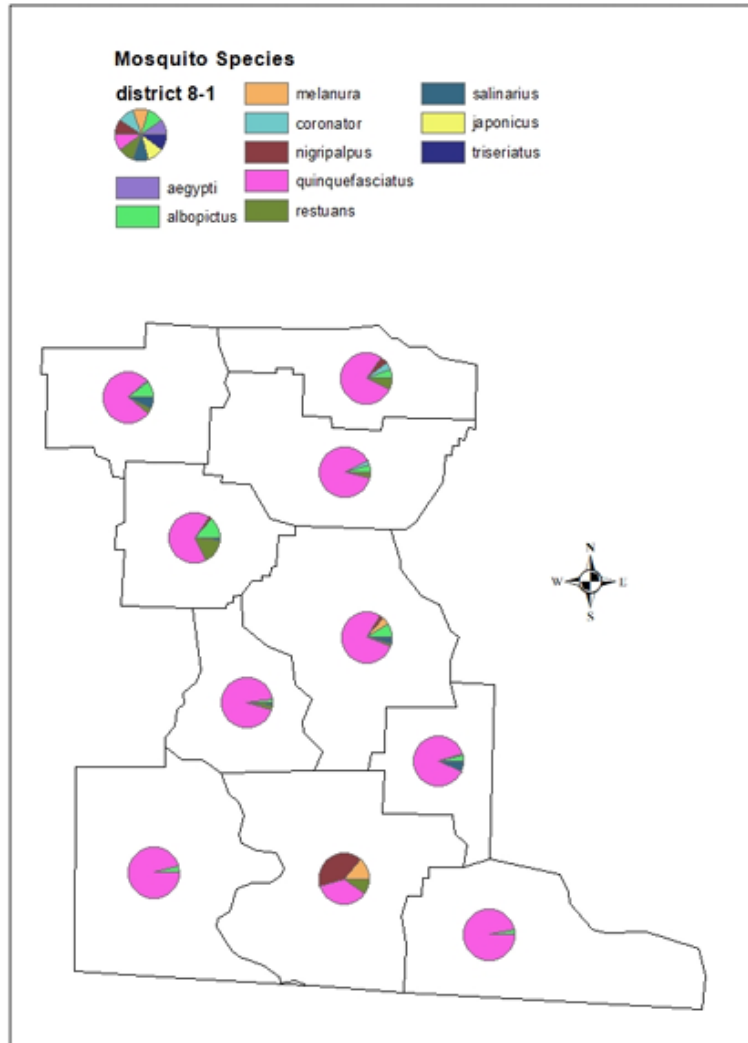


Culex coronator, 2021

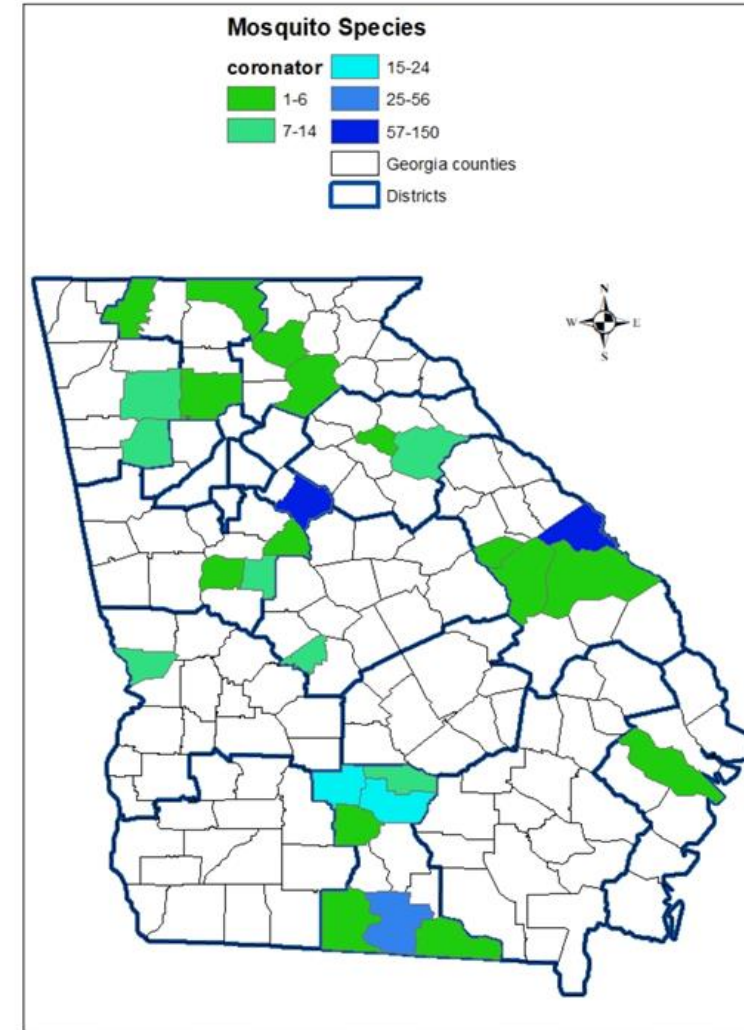


<https://www.gamosquito.org/resources/MosquitoSummaries/MSR5.pdf>

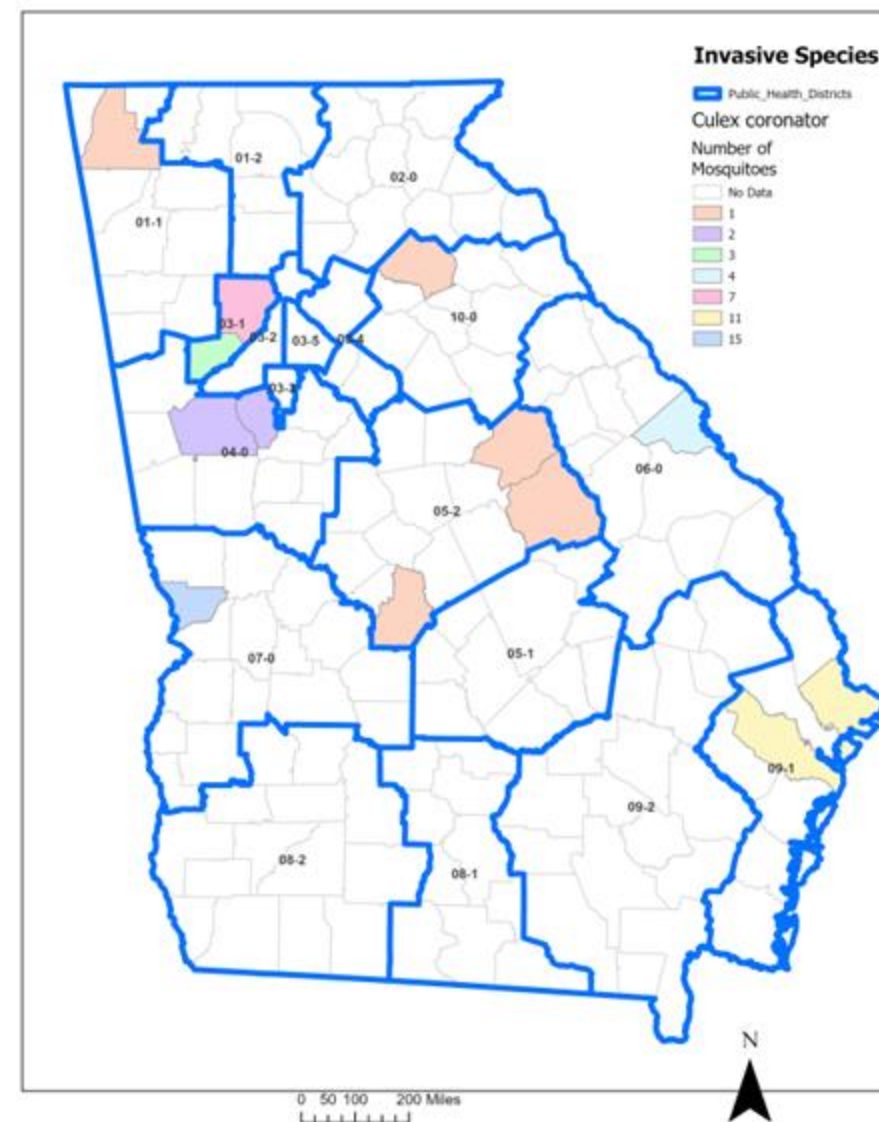
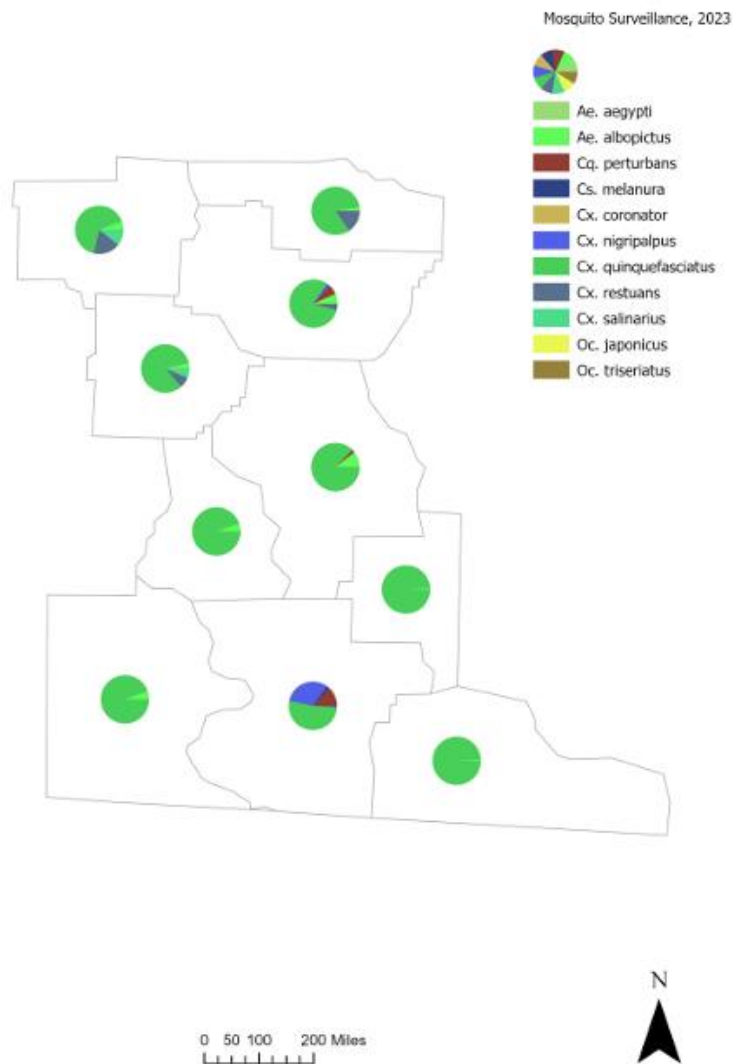
Vector Species, 2022



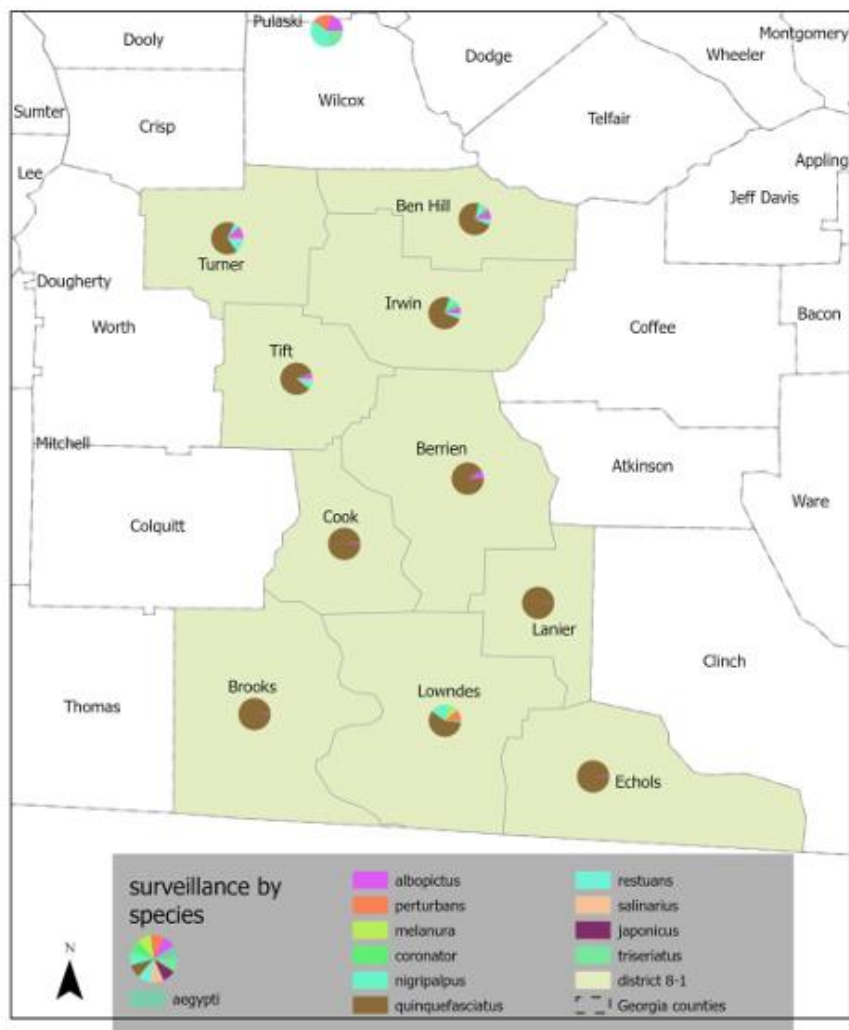
Culex coronator, 2022



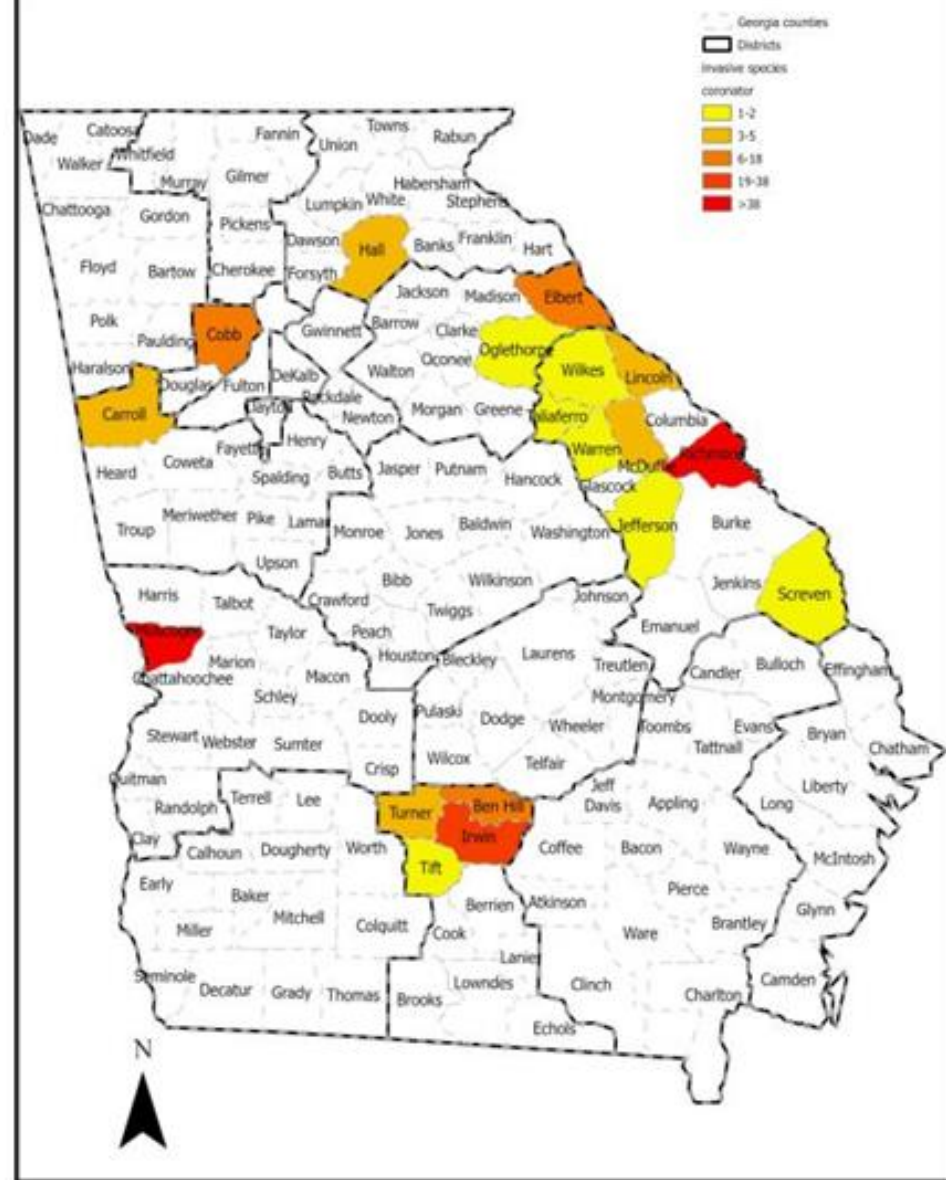
District 8-1



Surveillance by Species, District 8-1



Culex coronator Surveillance, 2024



<https://www.gamosquito.org/resources/MosquitoSummaries/MSR8.pdf>

Current State

- Dated equipment in need of repair
- New equipment is cost prohibitive
- Funding has not been renewed in our district to continue