2025—Arbovirus Final Report

Summary of Human West Nile Virus and Other Arboviral Infections, Georgia 2025

West Nile virus (WNV) is a mosquito-borne disease of birds. Humans are occasionally infected with WNV through mosquito bites. Approximately 1 in 5 people infected with WNV develop symptoms of "West Nile Fever", which is often characterized by fever, headache, fatigue, and muscle pain or weakness. Less than 1% of people infected with WNV develop neurologic disease such as meningitis, encephalitis, or flaccid paralysis.

West Nile virus was first recognized in Georgia in July 2001. That year, there were 6 human cases of WNV encephalitis reported in Georgia, including one death. Since then cases have been reported each year with varying numbers of human deaths.

To improve identification of Georgians infected with WNV, surveillance for WNV illness in humans was expanded for the 2003 transmission season to include all acute infections of WNV. In addition, routine screening of the nation's blood supply began in 2003, resulting in the identification of persons infected with WNV prior to the development of symptoms, if symptoms developed at all.

While the majority of human infections with arboviruses have resulted from bites by infected mosquitoes, other rare modes of transmission have been identified, including transplacental, blood transfusion, and organ transplantation.

Historical data on arboviral diseases in Georgia 2002-2024 are available upon request.

In 2025, Georgia reported 18 cases of WNV and 3 WNV presumptive viremic donors (PVD), with 3 deaths. Presumptive viremic donors (PVDs) are people who had no symptoms at the time of blood donation or other testing, but tested positive for the presence of select arboviruses. Although Georgia tracks and reports PVDs to the CDC for epidemiological purposes, PVDs are not counted as cases in our state. However, they are indicators of transmission occurring at a specific time and place, so are counted in this summary.

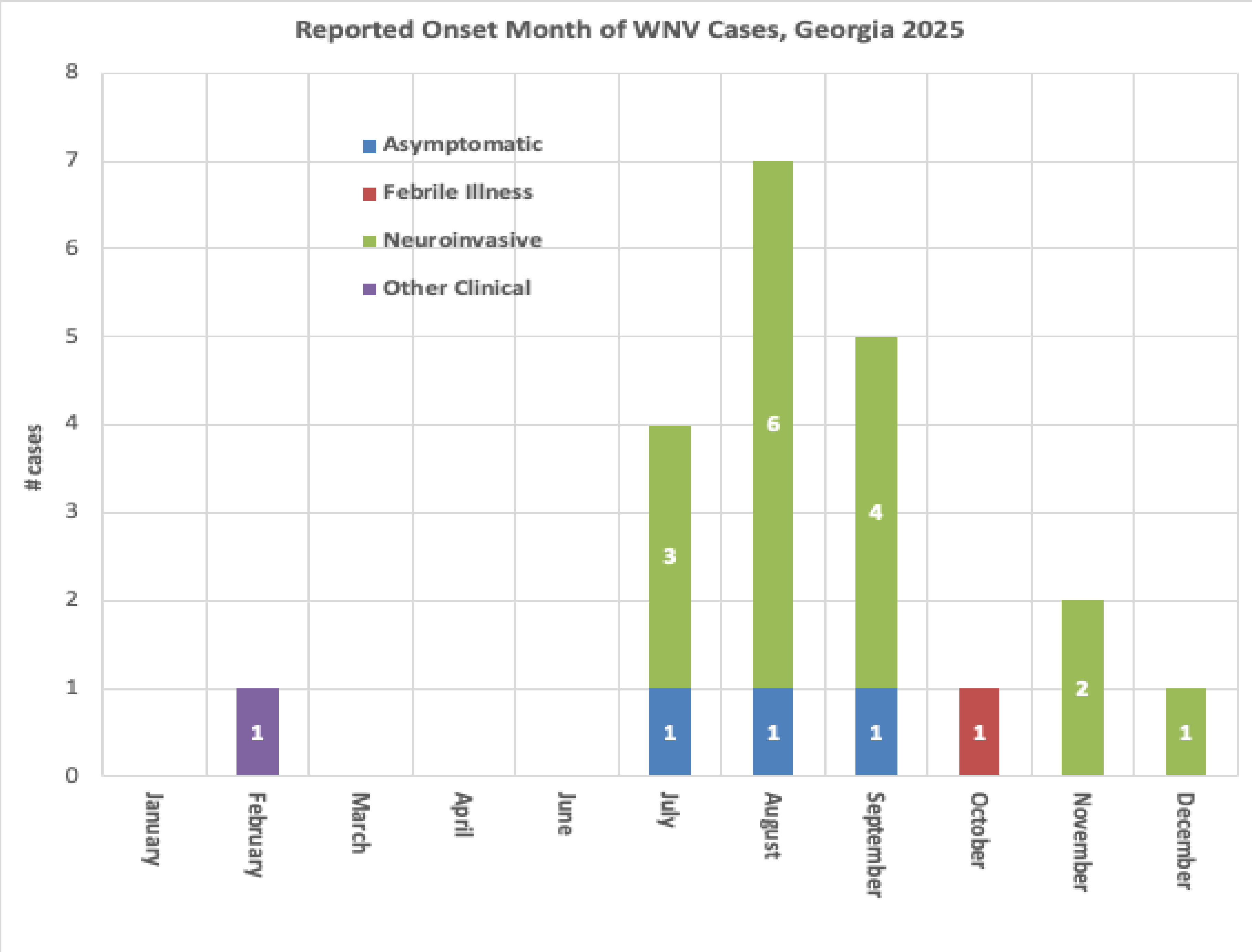
To date, 18 WNV disease cases were reported from 14 counties in 10 public health districts. Three asymptomatic cases of the 21 WNV-positives reported (14.3%) were from 3 counties in 3 Districts. Among the symptomatic cases, 12 (66.7%) of 18 experienced WNV neurologic illness (altered mental status, paralysis, encephalitis, GBS and/or meningitis), 5 (27.8%) had other clinical manifestations, and 1 (5.6%) was diagnosed with WNV fever. The average age of cases was 58.5 years (range 23-84). The average age of those with WNV neurologic illness was 61.4 years (range 24-84). The one WNF case was 62 years old. The one case with an other diagnosis was 36 years old. The average age of asymptomatic WNV+ was 49.3 (range 23-69). Seventeen (80%) of the 21 cases were male. Most cases were reported in August.

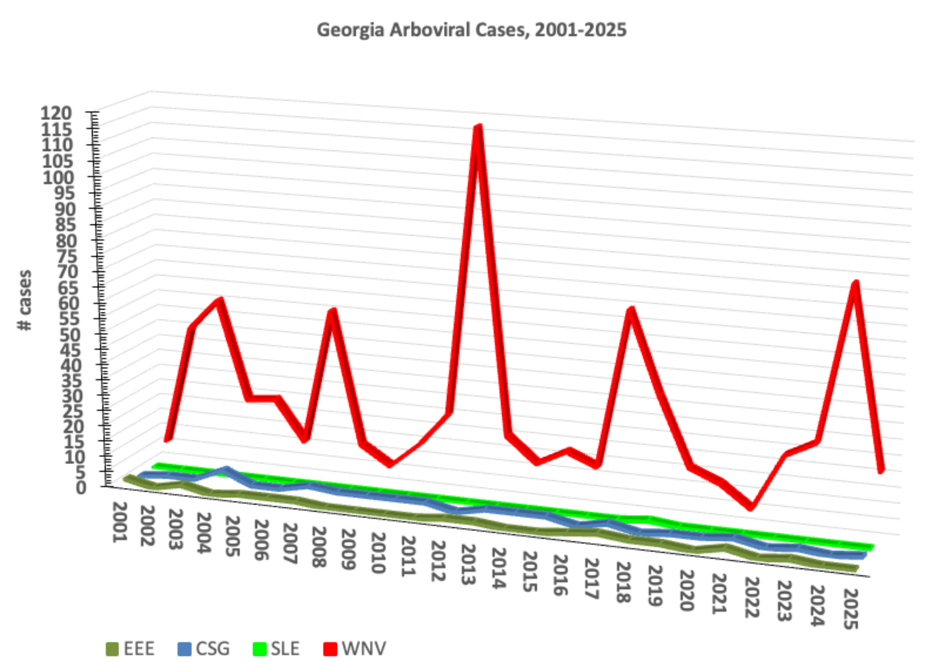
California serogroup (CSG) viruses, including California encephalitis, Keystone, La Crosse, Jamestown Canyon (JCV), snowshoe hare, and trivittatus, belong to the Bunyaviridae family of viruses. In the United States, La Crosse virus (LACV) is the most common of the California serogroup viruses. There was one case of a California Serogroup virus reported in Georgia in 2025.

Saint Louis encephalitis virus is related to WNV and is a member of the Flaviviridae subgroup. Until recently, SLE had not been reported in Georgia since the 1970s. In 2018, one case of SLE was reported in Georgia. There were no SLE cases reported in Georgia in 2025.

No cases of Eastern Equine Encephalitis (EEE) were reported in 2025.

The first travel-associated case of Zika was reported in Georgia in December 2015. In 2016, there were 113 travel-associated cases reported in Georgia. In 2017, there were a total of 11 travel-associated cases, 8 of which were asymptomatic. In 2018, a total of 2 asymptomatic travel-associated ZIKV cases were reported. In 2019, there were 5 travel-related ZIKV cases reported, 4 of which were asymptomatic. There was also 1 case of occupationally-acquired ZIKV. Between 2020 and 2025, no travel-related cases of ZIKV were reported. To date there have been no locally transmitted (mosquito to human) cases of Zika in Georgia. Fourteen travel-associated Dengue cases were reported in 2025, but no locally-acquired cases were reported. No travel-related case of CHIK was reported in 2025; no locally-acquired cases of CHIK have ever been reported in Georgia.


Reported Onset Month of WNV Cases, Georgia 2025
cases
0
1
2
3
4
5
6
7
8
Asymptomatic
Febrile Illness
Neuroinvasive
Other Clinical
1
3
1
6
1
4
1
1
2
1
January
February
March
April
June
July
August
September
October
November
December



cases (including asymptomatic), 2025

District	CSG	EEE	WNV	TOTAL
1-1				
1-2			1	**1**
2-0			1	**1**
3-(1,2,3,4,5)	1		2	**3**
4-0			1	**1**
5-1				
5-2			4	**4**
6-0			2	**2**
7-0			2	**2**
8-1			2	**2**
8-2			3	**3**
9-1			1	**1**
9-2			2	**2**
10-0				
TOTAL	1	0	21	**22**

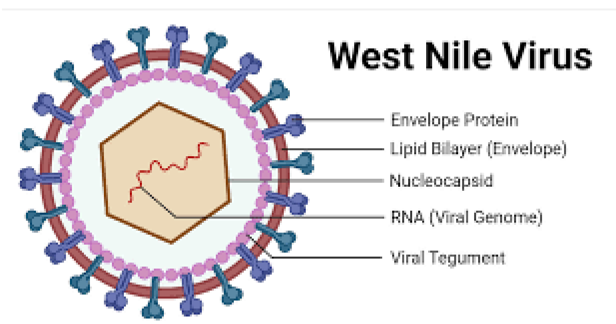
Table 3: Age Ranges, WNV 2025

ALL		
count	**age range**	**%**
	0-10	0.0%
	11-20	0.0%
3	21-30	14.3%
2	31-40	9.5%
1	41-50	4.8%
2	51-60	9.5%
7	61-70	33.3%
4	71-80	19.0%
2	>80	9.5%
21	total	

Clinical Syndromes, 2025

Diagnosis	EEE	CSG	WNV
Asymptomatic			3
Encephalitis		1	9
Fever			1
Meningitis			2
other, neuroinvasive			5
other. clinical			1

Virus	Month	Clinical Syndrome	Fatality	# cases
WNV	**Feb**	Guillain-Barre Syndrome		1
	July	Asymptomatic		1
		Encephalitis - Including Meningoencephalitis		2
		Other Neuroinvasive Presentation		1
	Aug	Asymptomatic		1
		Encephalitis - Including Meningoencephalitis		2
			yes	3
		Other Neuroinvasive Presentation		1
	Sep	Asymptomatic		1
		Encephalitis - Including Meningoencephalitis		2
		Other Neuroinvasive Presentation		1
		Meningitis		1
	Oct	Febrile illness		1
	Nov	Other Neuroinvasive Presentation		2
	Dec	Meningitis		1



WNV overwinters in *Culex* spp, which overwinter as adults. If the weather warms up above 50 degrees, mosquitoes can leave diapause and will blood feed. The virus can also replicate in the mosquito when the weather warms up above 50 degrees, leading to the potential for arbovirus transmission.

Arboviral Diseases

Components of Mosquito Surveillance

Mosquito surveillance is used for:

- Determining changes in the geographic distribution and abundance of mosquito species
- Evaluating control efforts by comparing pre-surveillance and post-surveillance data
- Obtaining relative measurements of the vector populations over time and accumulating a historical database
- Facilitating appropriate and timely decisions regarding interventions

In addition, mosquito surveillance programs should include an ongoing component of monitoring environmental factors that can influence mosquito populations. These factors include, but are not limited to, rainfall levels, ground water levels, temperature, relative humidity, wind direction and velocity, tidal changes, lunar cycles, storm water and wastewater management, and land use patterns.

Step 1: **Defining the Problem**

Identification of problem species is the first step toward defining and developing control efforts. These can be either nuisance species, vector species, or both, depending on the scope of the mosquito control program.

Nuisance mosquitoes are bothersome in residential or recreational areas. These mosquitoes can have a large economic impact, as they may reduce property values, slow economic development of an area, reduce tourism, or affect livestock and poultry production.

Vector species are mosquitoes involved in the transmission of pathogens that cause mosquito-borne disease. In Georgia, our most important vector species are *Culex quinquefasciatus*, *Aedes albopictus,* and *Culiseta melanura*. However, there are other species that can be involved in pathogen transmission.

Larval and adult mosquito surveillance should be conducted throughout the mosquito season. Trap sites can be determined by:

- Site visits to complaints
- Ground proofing areas of interest from aerial maps
- Institutional knowledge

Cases by Year (includes asymptomatic cases*)				
Year	EEE	CSG	SLE	WNV
2001	2			6
2002		1		45
2003	2	1		55
2004		5		23
2005	1	1		24
2006	1	1		11
2007	1	3		55
2008		2		12
2009		2		6
2010		2		14
2011		2		25
2012	1			117
2013	1	2		20
2014		2		13
2015		2		15
2016	1			13
2017	2	2		63
2018	1		1	38
2019	1	1		16
2020		1		12
2021	2	2		5
2022				23
2023	1	1		28
2024				78
2025		1		21

Step 2: **Mapping**

The routine use of GIS provides many operational advantages for control of invasive mosquitoes:

- Documentation of larval and adult mosquito sources
- Documentation of service requests received from the public
- Visualization and analysis of mosquito distributions and abundance

- Documentation of surveillance and control efforts
- Identification of "hot spots" of mosquito activity or pathogen transmission risk
- Prediction of locations and seasons that are most suitable for invasive mosquitoes
- Resolution of insecticide resistance patterns
- Provision of high-quality printed and digital maps for operational use and education
- Generation of resident lists in specific high-risk areas for targeted notifications or door-to-door surveys
- Enhanced collaboration with other agencies to communicate intentions and coordinate actions across jurisdictional boundaries

Step 3: **Action Thresholds**

Decisions to initiate control measures should be based on an analysis of either larval or adult mosquito surveillance and on the number of complaints received. Both of these components, when taken together, help determine if there is a mosquito problem, as well as the scope of that problem. Setting a realistic trigger or action threshold for management decisions is highly specific to each mosquito program and must be tailored according to local administrative codes, public acceptance, and public health threat.

Step 4: **Control**

Larval Control

Larval source management (LSM) involves the removal, modification or treatment, and monitoring of aquatic habitats to reduce mosquito propagation and human-vector contact. Interventions for LSM range from simple to complex.

Container removal programs and so-called "tip-and-toss" techniques (overturning containers holding water) are effective in eliminating habitat and may be combined with direct larvicide treatments. Mosquito production from storm water/wastewater habitats can be a problem but typically can be managed by keeping the area free of weeds through an aquatic plant management program and by maintaining water quality that can support larvivorous fish.

Adult Control

Adulticiding should be used when deemed necessary, according to data gathered in surveillance activities or in response to public health needs. Surveillance also helps in focusing adulticide application to specific target areas.

Step 5: **Monitoring for Efficacy**

Annual resistance testing should be a routine component of all integrated mosquito management programs and occur prior to the start of each mosquito season, as resistance to insecticides is a potential threat to all mosquito control programs. In addition, surveillance done before and after adulticiding activities can provide information of the effectiveness of the spray program. Keeping graphs of these data will help determine long-tern trends.

Step 6: **Community Outreach**

Education and community outreach are required to increase knowledge of and support for vector control activities in communities. Stakeholders include community residents, agencies (health departments), local and regional officials, local fire and police departments, leaders of community organizations, and the media, among others. Obvious channels for outreach are schools, clubs, churches, and other organizations. Also consider the following:

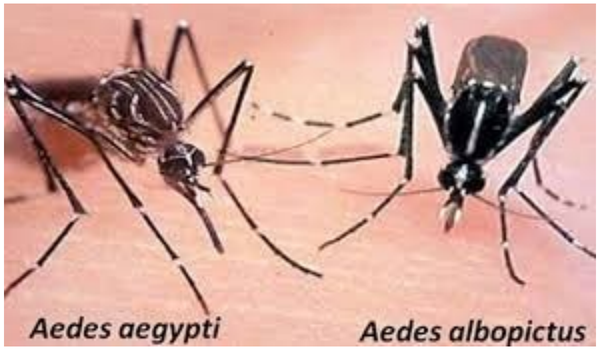
- Municipal departments (such as public works, sanitation, trash removal, and building inspection)
- "Green" organizations (focused on healthy environment and self-reliance)
- Youth organizations (such as Girl Scouts and Boy Scouts)
- Social organizations (such as Habitat for Humanity)
- Intern programs (social workers, medical personnel, biologists, etc)
- Public health organizations (community health clinics, medical reserve corps)
- Extension programs
- Citizen scientists

Social media can also play a role in education and community outreach.

Outreach is an ongoing process. One source of information in creating plans with measurable outcomes for community outreach can be found at https://s3.amazonaws.com/assets.enrollamerica.org/wp-content/uploads/2013/12/Enroll-America-Factsheet-HowToOutreachWorkPlan.pdf.

Step 6: **Record Keeping**

Accurate record keeping is essential for a mosquito surveillance and control program. At the local level, surveillance data are used to develop accurate distribution and abundance maps, perform statistical analysis to support the decision to initiate control measures (setting action thresholds), and evaluate the impact of control measures.



References

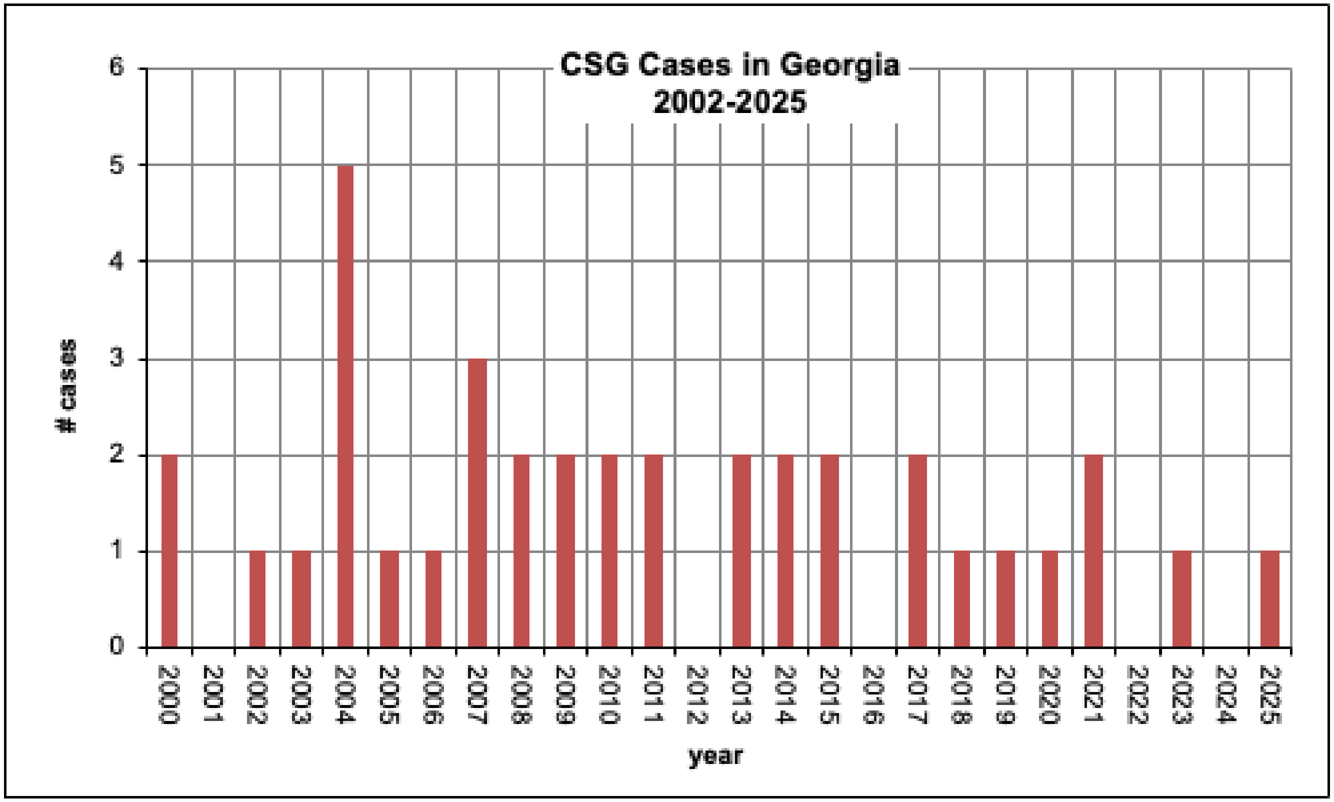
AMCA Best Management Practices. [AMCA's Best Management Practices - American Mosquito Control Association]

CDC Guidelines for Bottle Bioassays. [CDC Bottle Bioassay | Mosquitoes | CDC] .

Georgia Mosquito Control Association. http://www.gamosquito.org/mosquitolinks.htm and http://www.gamosquito.org/publications.htm.

Intro to Mosquito Surveillance

https://doc.arcgis.com/en/arcgis-solutions/11.3/reference/introduction-to-mosquito-surveillance.htm

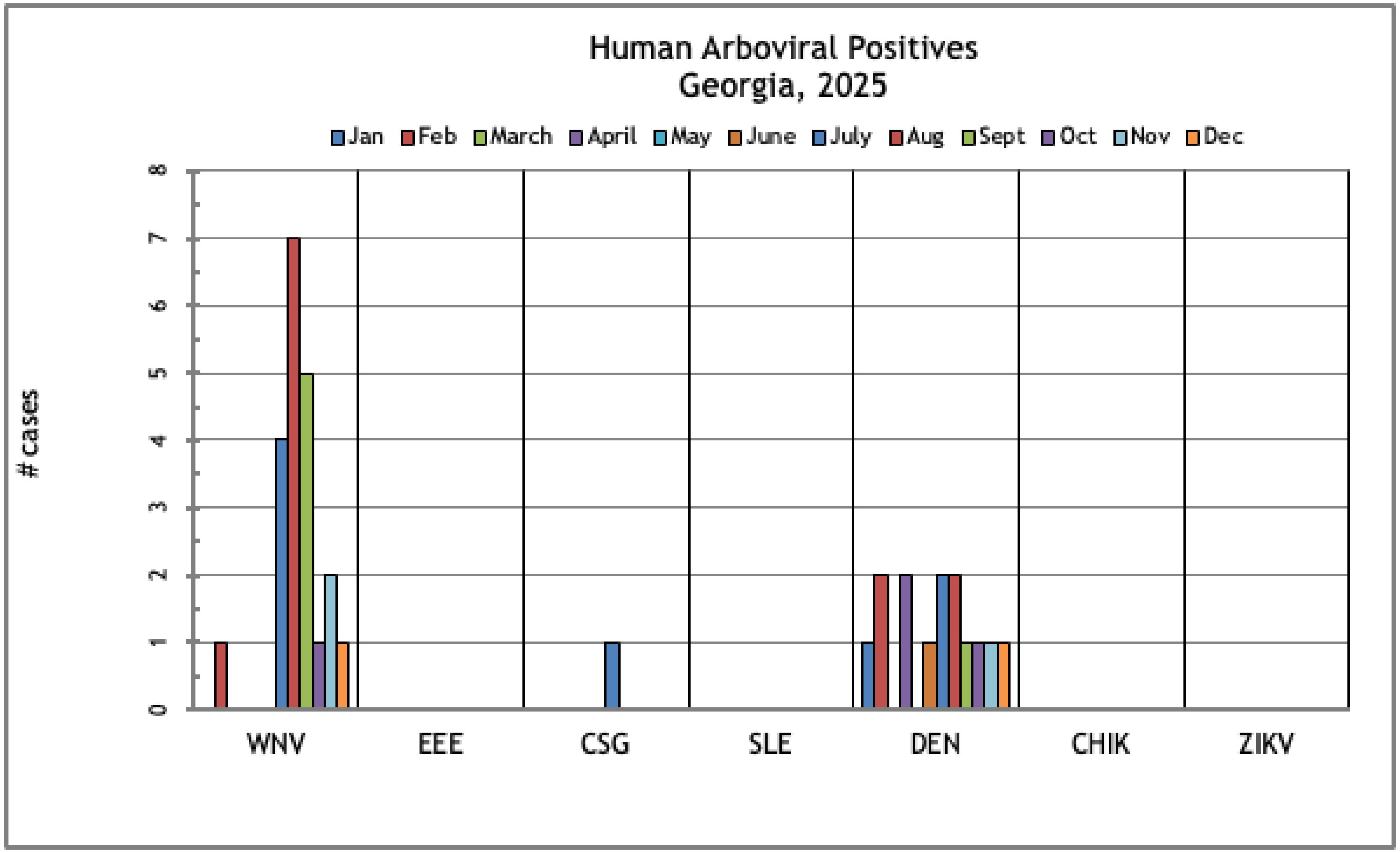


Exotic Mosquito-Borne Diseases

Outbreaks of chikungunya virus have become more frequent and widespread since 2004, with autochthonous transmission now noted in 119 countries. Once viewed as a health problem limited to tropical regions of Africa and Asia, the virus has resurged and spread to new regions of the world, reflecting the increased environmental suitability of these areas for the *Aedes* mosquito vector due to climate change.

Multiple factors are thought to be driving the increase in chikungunya virus outbreaks. Although some strains of the virus have acquired mutations such as E1-A226V that improve transmission via *Aedes albopictus*, the biggest drivers of the increase are "climate-related expansion of *Aedes* mosquitoes, urbanization, and global travel...

https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(25)00189-2/fulltext



Globally, between January 1 and December 10, 2025, a total of 502,264 chikungunya cases were reported, including 208,335 confirmed cases and 186 deaths, across 41 countries and territories. In the Americas, 313,132 cases were reported, of which 113,926 were confirmed, including 170 deaths in 18 countries and one territory during 2025.

One case of locally acquired chikungunya fever has been reported in Miami-Dade County with onset in December 2025. The last time local transmission of chikungunya in Florida was in 2014 when 12 cases were reported.

As of mid-February 2026, 2,882 cases and 1 death have been reported, with cases lower compared to the same period in 2025.

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virus	Country of Origin	Count
Dengue	BRAZIL	1
	COLOMBIA	1
	COSTA RICA	1
	CUBA	3
	GUYANA	1
	INDIA	2
	PUERTO RICO	2
	SRI LANKA	1
	VIETNAM	1
	VIRGIN ISLANDS	1

Dengue cases have reached historic highs in 2024–2025, with over 14.6 million cases and 12,000+ deaths reported globally in 2024, driven by climate change and increased vector spread. The Americas are the most affected, accounting for over 90% of cases, with Brazil, Argentina, and Paraguay leading in incidence. The virus is now endemic in over 100 countries.

Key Trends

- Shift in Transmission: The disease is appearing in new, previously non-endemic, or temperate areas, including parts of Europe.
- Surge Patterns: Cases have been rising dramatically, doubling each year since 2021.
- As of early 2026, surveillance shows continued high transmission in parts of the Americas .

Veterinary Data

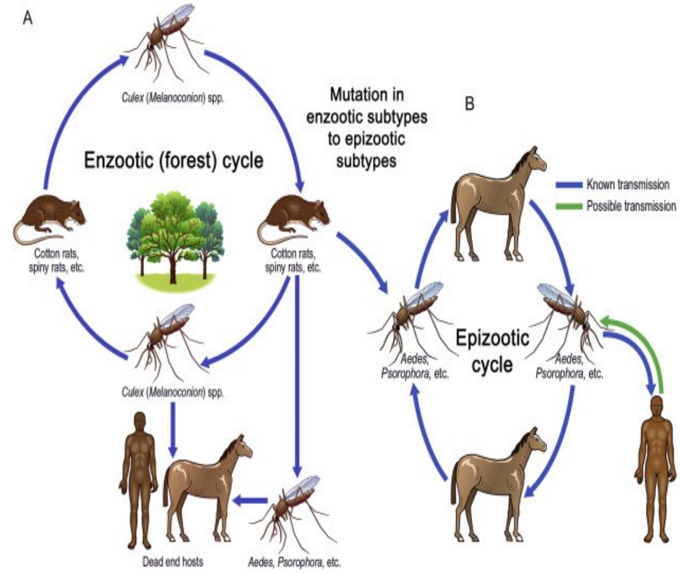
Three horses tested positive for WNV in 2025. The number of reported cases of WNV in horses decreased rapidly after 2002, likely due to increased immunity, increased vaccination, and/or decreased testing, but had lately begun to increase again, although somewhat sporadically.

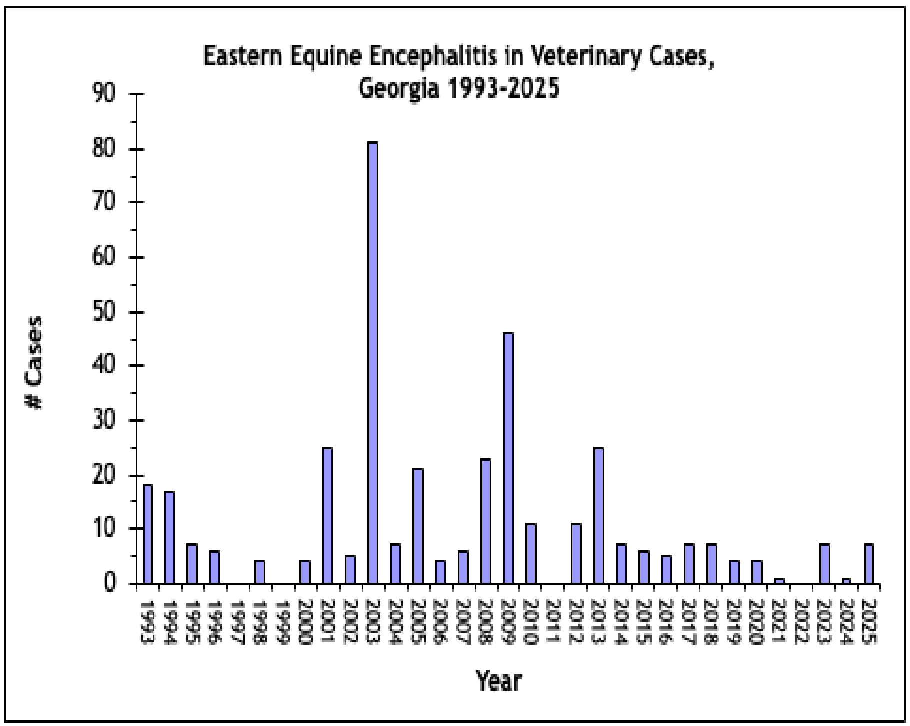
Seven horse tested positive for EEE in 2025. Eastern equine encephalitis is endemic in the Coastal and Coastal Plains areas of Georgia. During an average year, four or five EEE+ horses are reported from these areas. The true number of horse cases is probably higher, and lack of reporting is due primarily to under-testing, although subclinical infections can occur with EEE.

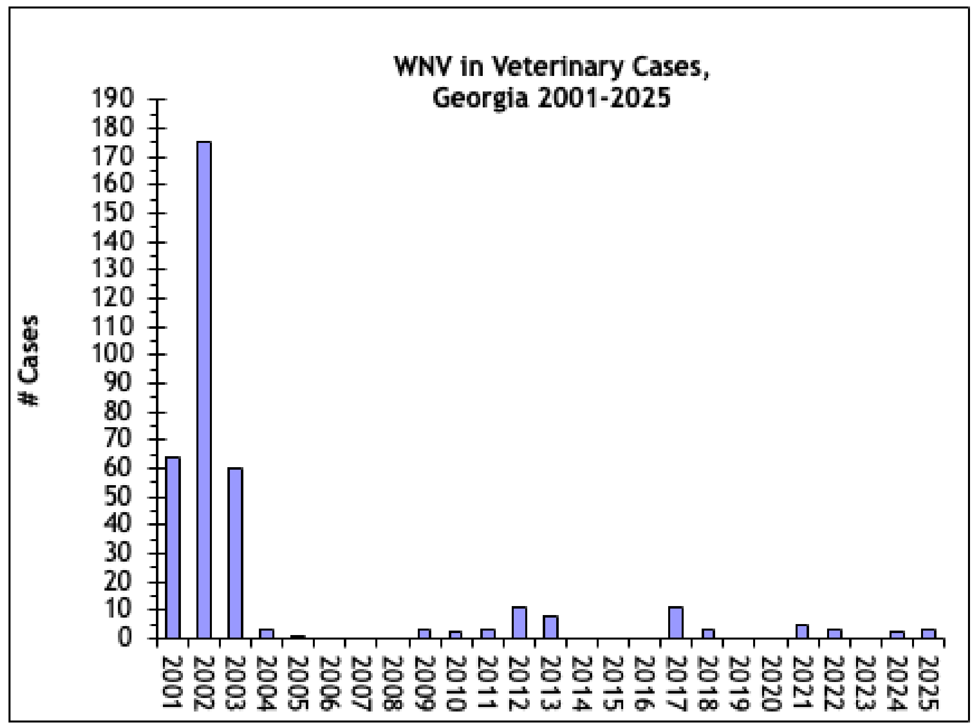
Vaccinating at the proper time of the year against EEE and WNV is critical to protecting horses from the potentially fatal mosquito-borne diseases.

year	WNV	EEE
2001	64	25
2002	175	5
2003	60	81
2004	3	7
2005	1	21
2006		4
2007		6
2008		23
2009	3	46
2010	2	11
2011	3	
2012	11	11

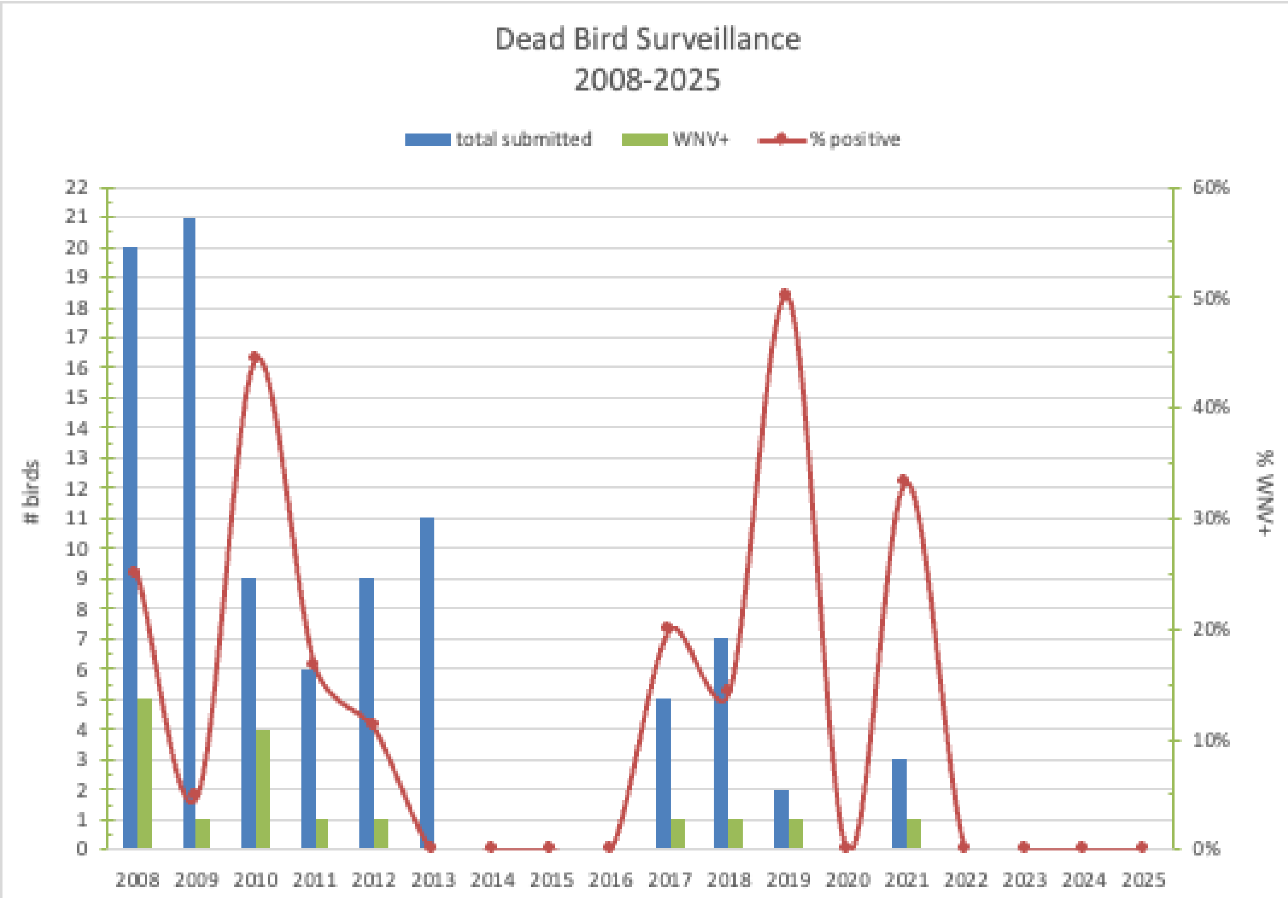
year	WNV	EEE
2013	8	25
2014		7
2015		6
2016		5
2017	11	7
2018	3	7
2019		4
2020		4
2021	5	1
2022	3	
2023		7
2024	2	1
2025	3	7







Dead Bird Surveillance



year	WNV+	total	% positive
2001	322	1566	20.6%
2002	931	2421	38.5%
2003	478	2131	22.4%
2004	105	581	18.1%
2005	23	311	7.4%
2006	15	281	5.3%
2007	10	97	10.3%
2008	5	20	25.0%
2009	1	21	4.8%
2010	4	9	44.4%
2011	1	6	16.7%
2012	1	9	11.1%
2013		11	
2014			
2015			
2016			
2017	1	5	20.0%
2018	1	6	16.7%
2019	1	2	50.0%
2020			
2021	1	3	33.3%
2022			
2023			
2024			
2025			

As of 2012, federal funding was no longer available to test birds. Submission of dead birds had already decreased from a high of 2421 birds submitted to SCWDS for testing in 2002, to 2 birds submitted in 2019.

In 2025, no birds were reported as submitted for testing.

Dead bird surveillance continues to lose ground as a surveillance tool, and even more so now when no funding is available at the State level to support testing; most counties do not have the resources to pick up and ship birds for testing in any case. Bird testing does continue to have some utility however, esp where mosquito surveillance data are not available. In addition, positive dead bird reports can be used to trigger public education messages reminding people to wear repellent and to dump out standing water.

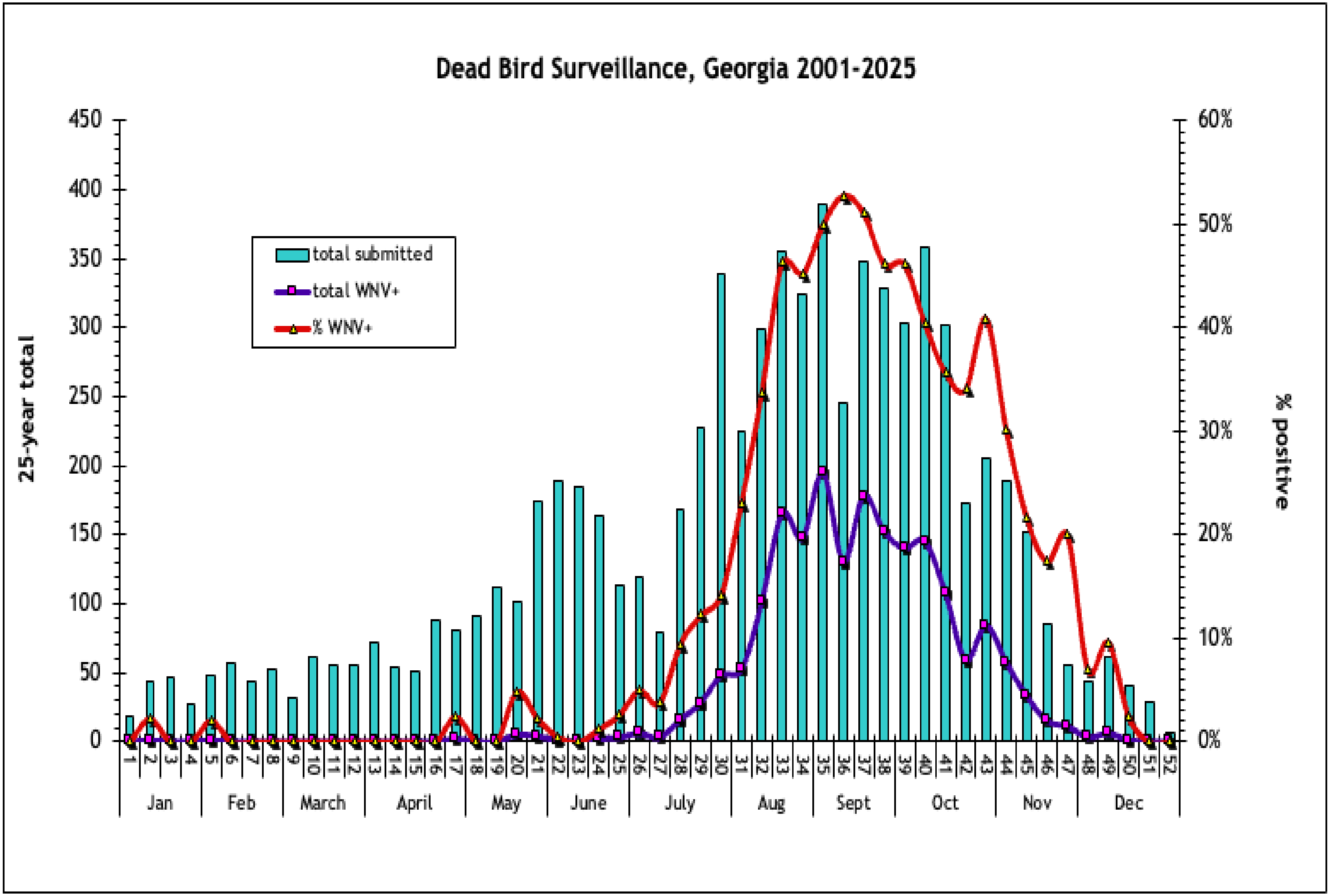
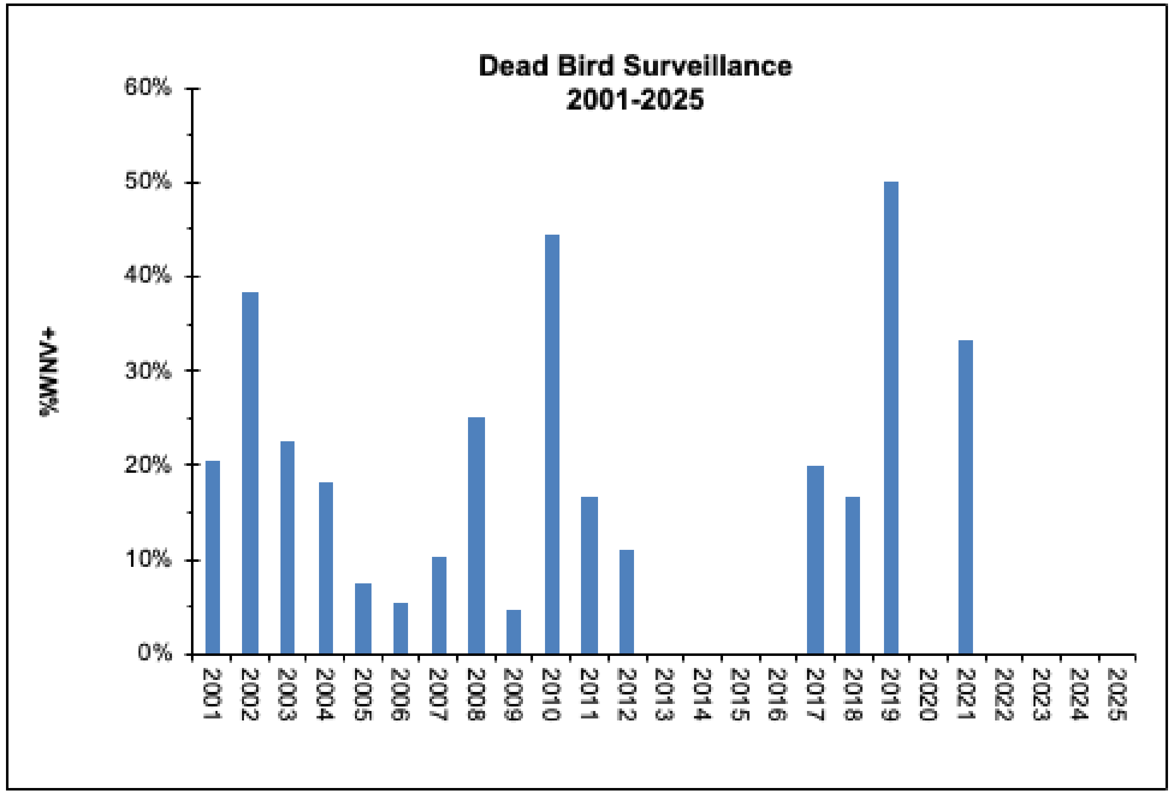
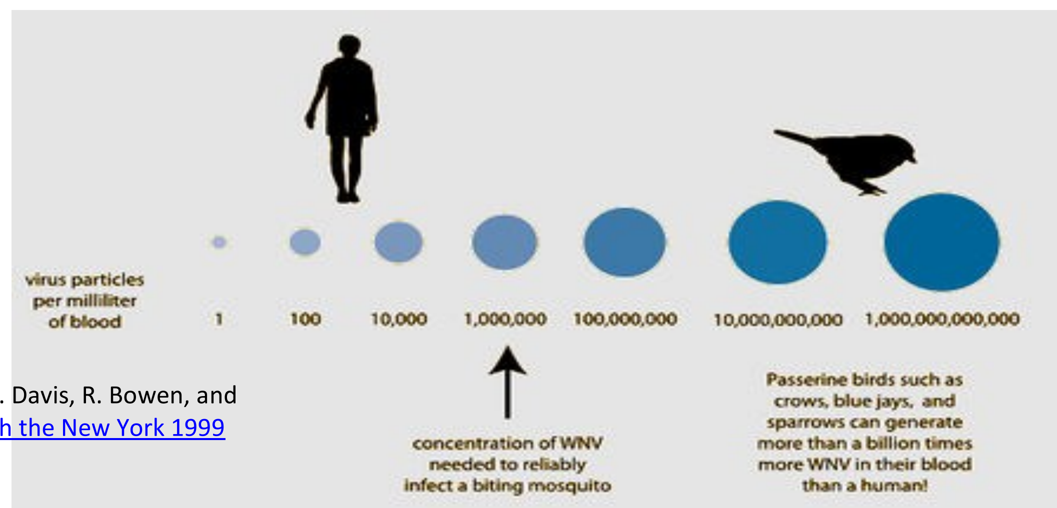

Dead Bird Surveillance, Georgia 2001-2025
total submitted
total WNV+
% WNV+
25-year total
% positive
450
400
350
300
250
200
150
100
50
0
60%
50%
40%
30%
20%
10%
0%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52
Jan
Feb
March
April
May
June
July
Aug
Sept
Oct
Nov
Dec

Table of West Nile Virus host competency of 23 species of birds. A larger index number correlates to higher amounts of viral load in concurrence with long durations of viremia. Data adapted from Komar et al. 2003.

Species	Reservoir Competence Index
Blue Jay	2.55
Common Grackle	2.04
House Finch	1.76
American Crow	1.62
House Sparrow	1.59
Ring-billed Gull	1.26
Black-billed Magpie	1.08
American Robin	1.08
Red-winged Blackbird	0.99
American Kestrel	0.93
Great Horned Owl	0.88
Killdeer	0.87
Fish Crow	0.73
Mallard	0.48
European Starling	0.22
Mourning Dove	0.19
Northern Flicker	0.06
Canada Goose	0.03
Rock Dove	0
American Coot	0
Ring-necked Pheasant	0
Monk Parakeet	0





Komar, N., S. Langevin, S. Hinten, N. Nemeth, E. Edwards, D. Hettler, B. Davis, R. Bowen, and M. Bunning. 2003. Experimental Infection of North American Birds with the New York 1999 Strain of West Nile Virus. Emerging Infectious Diseases 9(3): 311-322.

Mosquito Surveillance

In 2012, due to funding cuts, mosquito testing was no longer supported by the State Department of Public Health. Counties testing mosquito pools in-house or holding contracts for testing continued doing mosquito surveillance and shared some of the test results with the GDPH. Unfortunately, data submitted to the GDPH are likely to be incomplete, making data analysis difficult and results suspect.

Ten counties sent mosquitoes for testing in 2025. A total of 3069 pools of mosquitoes (167735 individuals) were sent for testing in 2025, with results reported to the GDPH. Four species, *Aedes albopictus* (1 pool), *Culex quinquefasciatus* (59 pools), *Cx nigripalpus* (1 pool), and *Cx restuans* (4 pools) were found to be WNV+. Additionally, two pools of *Culex quinquefasciatus* tested positive for EEE.

2025 WNV+ Mosquitoes

county	# mosquitoes submitted	WNV+ pools	MIR
Ben Hill	50		
Camden	11113		
Chatham	109348	4	0.04
DeKalb	10148	24	2.36
Fulton	11754	21	1.79
Glynn	17667	5	0.28
Irwin	7		
Lowndes	7564	11	1.45
Tift	43		
Turner	41		

2025 virus/trap data

virus	CDC	DynaTrap	Exit	Gravid	NJLT
NEG	1583	152	20	5320	2876
EEE				2	
Flanders				1	
Flanders (variant)				44	
WNV	5			60	

EEE+ mosquito pools

County	*Cx. quinquefasciatus*
Fulton	2

WNV+ mosquito pools

County	*Ae. albopictus*	*Cx. nigripalpus*	*Cx. quinquefasciatus*	*Cx. restuans*
Chatham			4	
DeKalb			20	4
Fulton	1		20	
Glynn		1	4	
Lowndes			11	

CDC Light Trap

GA Arboviruses 2001-2025 (# pools)

	trap type					
Virus	**unknown**	**other**	**BGS**	**Gravid**	**CDC**	**Total**
Bunyavirus					1	1
Cache Valley	6					6
EEE	1	1		10	24	36
Flanders	16			1079	16	1111
Flanders (variant)				124	2	126
HJV				4	6	10
HP				1		1
Keystone	2				1	3
LAC	1					1
NEG	10244	7401	734	110722	27100	156201
Orbivirus		1				1
Potosi	2				1	3
South River virus	2					2
TENV					1	1
unknown				1		1
WNV	193		3	2732	49	2977
TOTAL	10467	7403	737	114673	27201	160481

BGS Trap

Gravid Trap

In 2025, the first WNV+ mosquitoes were detected in Fulton County in late June. The last WNV+ pool was collected in Chatham in late October. Peaks in numbers of WNV+ pools occurred in July and August. Five WNV+ pools were collected in CDC light traps; 60 WNV+ pools were collected in gravid traps.

The Vector Index (VI) equals the MIR times the number of vectors per trap night . It is a Measure of infectivity that takes into account the following information:

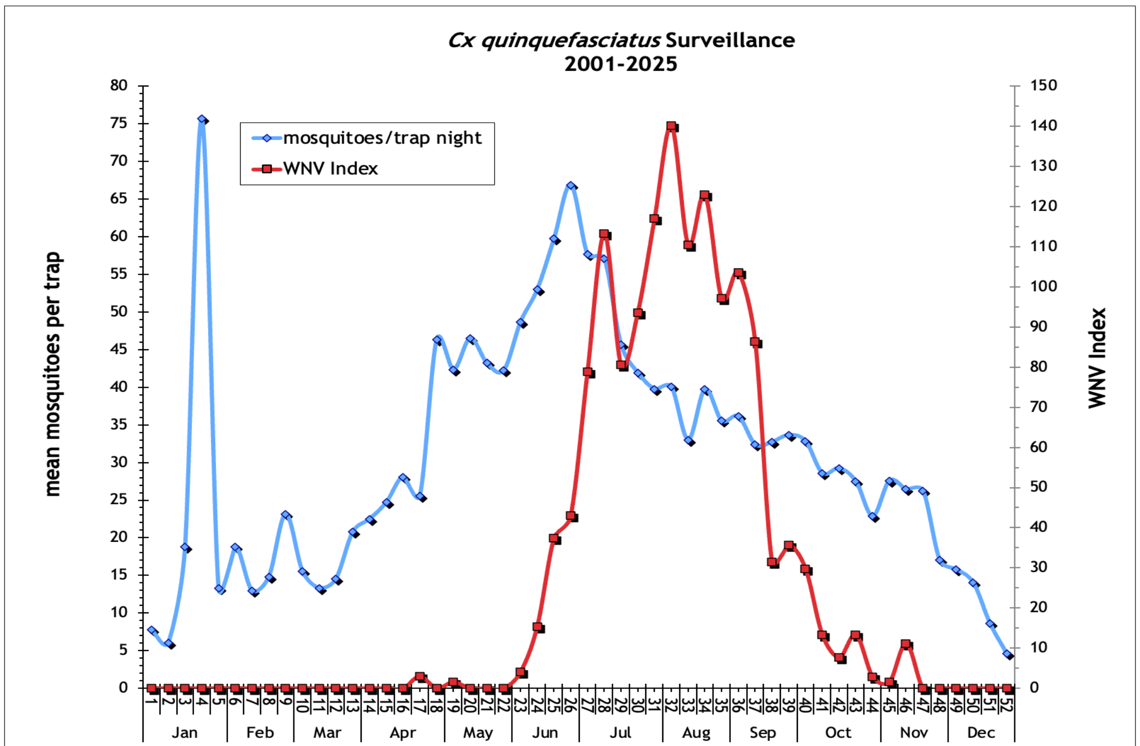
- **Vector species composition** – Key species carrying West Nile virus in our region.
- **Vector species population density** – Vector abundance relative to trapping effort (vectors per trap night).
- **Vector species infection rate** – Proportion of vector population infected with WNV (MIR).

The VI is an objective method of following trends in mosquito infection rates, adjusted for mosquito abundance in the area.

The Minimum Infection Rate or MIR = (# WNV+ Pools/Total # Mosquitoes Tested) X 1000. The WNV Index is the MIR multiplied by the number of mosquitoes per trap night. An MIR of 0 suggests that there is no viral activity in the area. An MIR of 0.1 to 3.9 indicates that some viral activity is present, and increased vigilance and testing are needed. An MIR of 4.0 or above means that a high level of viral activity is present, human infections are imminent (if not already present), and prompt action is required.

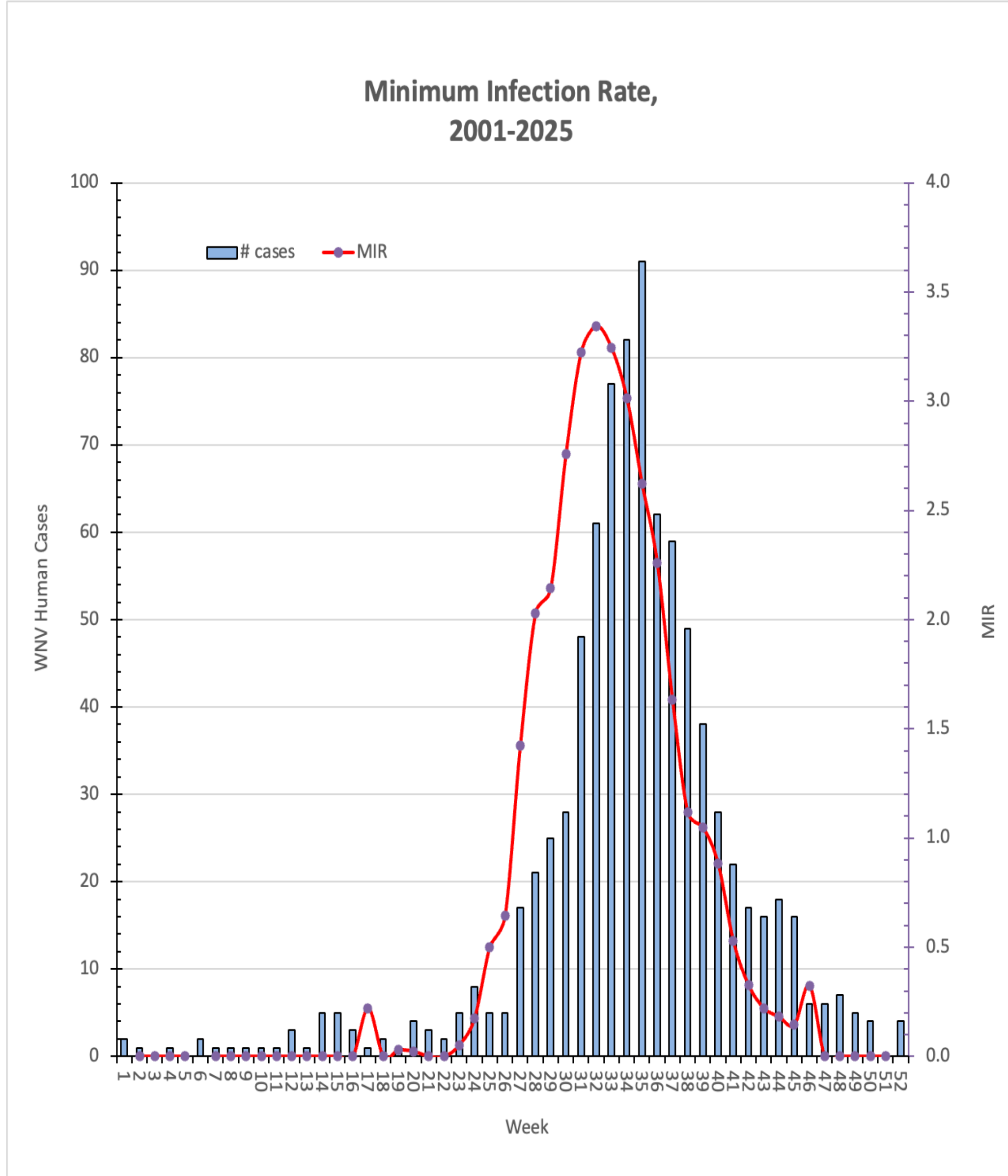
The monthly MIR for Georgia in 2025 ranged from 0.07 to 1.05, with an average of 0.38.

year	WNV Index	WNV+ Pools	human cases
2001	146.3	31	6
2002	106.6	57	37
2003	50.7	105	60
2004	40.7	126	24
2005	17.7	67	24
2006	31.5	81	10
2007	29.9	75	60
2008	25.3	50	12
2009	13.7	24	6
2010	47.7	99	14
2011	179.6	397	26
2012	64.3	125	117
2013	72.0	150	20
2014	43.6	56	13
2015	37.00	40	17
2016	22.80	36	13
2017	148.00	276	64
2018	202.30	310	38
2019	113.40	243	16
2020	24.60	59	12
2021	11.50	31	5
2022	59.60	100	23
2023	48.40	118	28
2024	51.6	256	78
2025	12.6	65	21



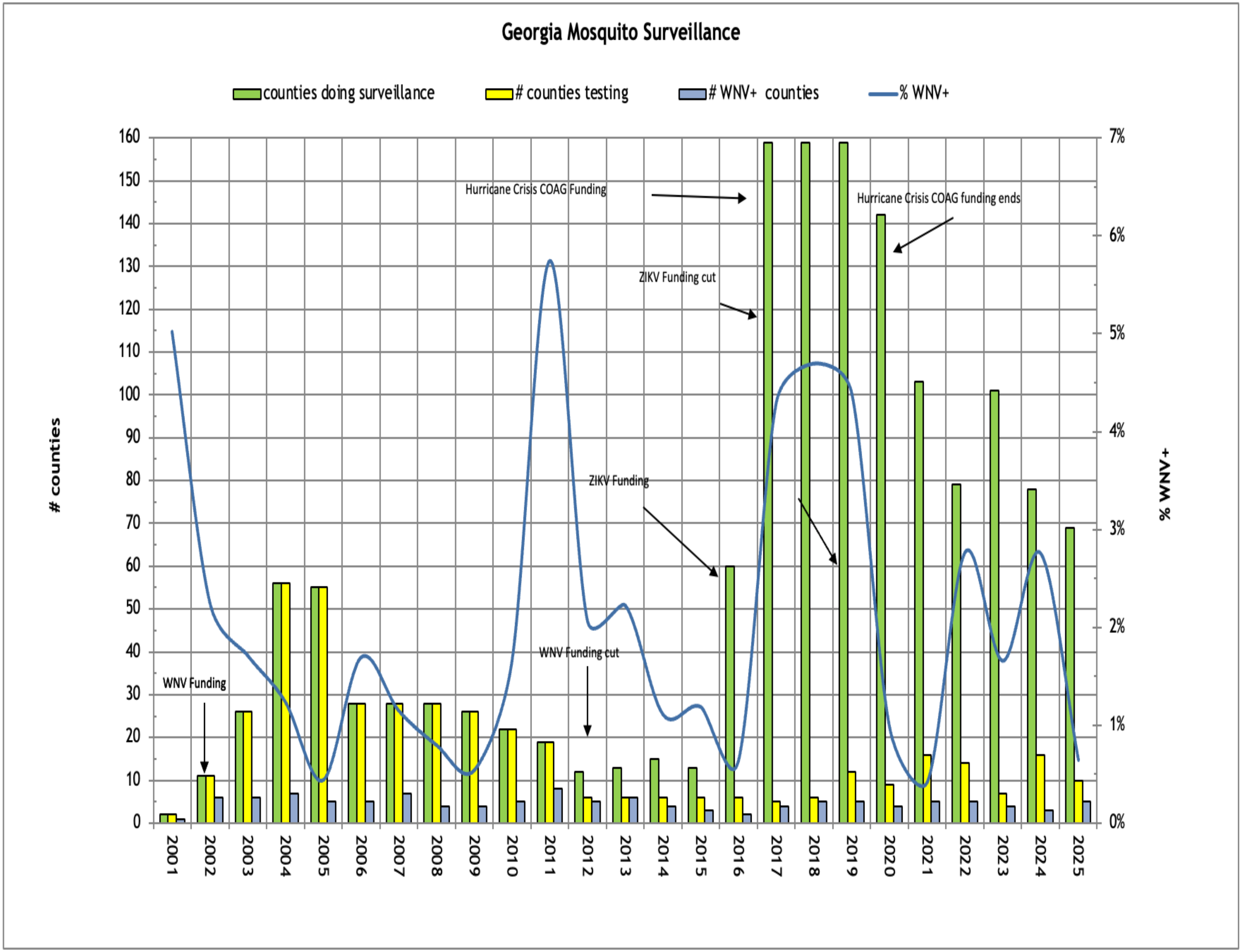
2001-2025	human cases	WNV+ mosquito pools	veterinary case	positive bird
total	729	2977	483	1902
mean/year	29.2	119.1	48.3	76.1

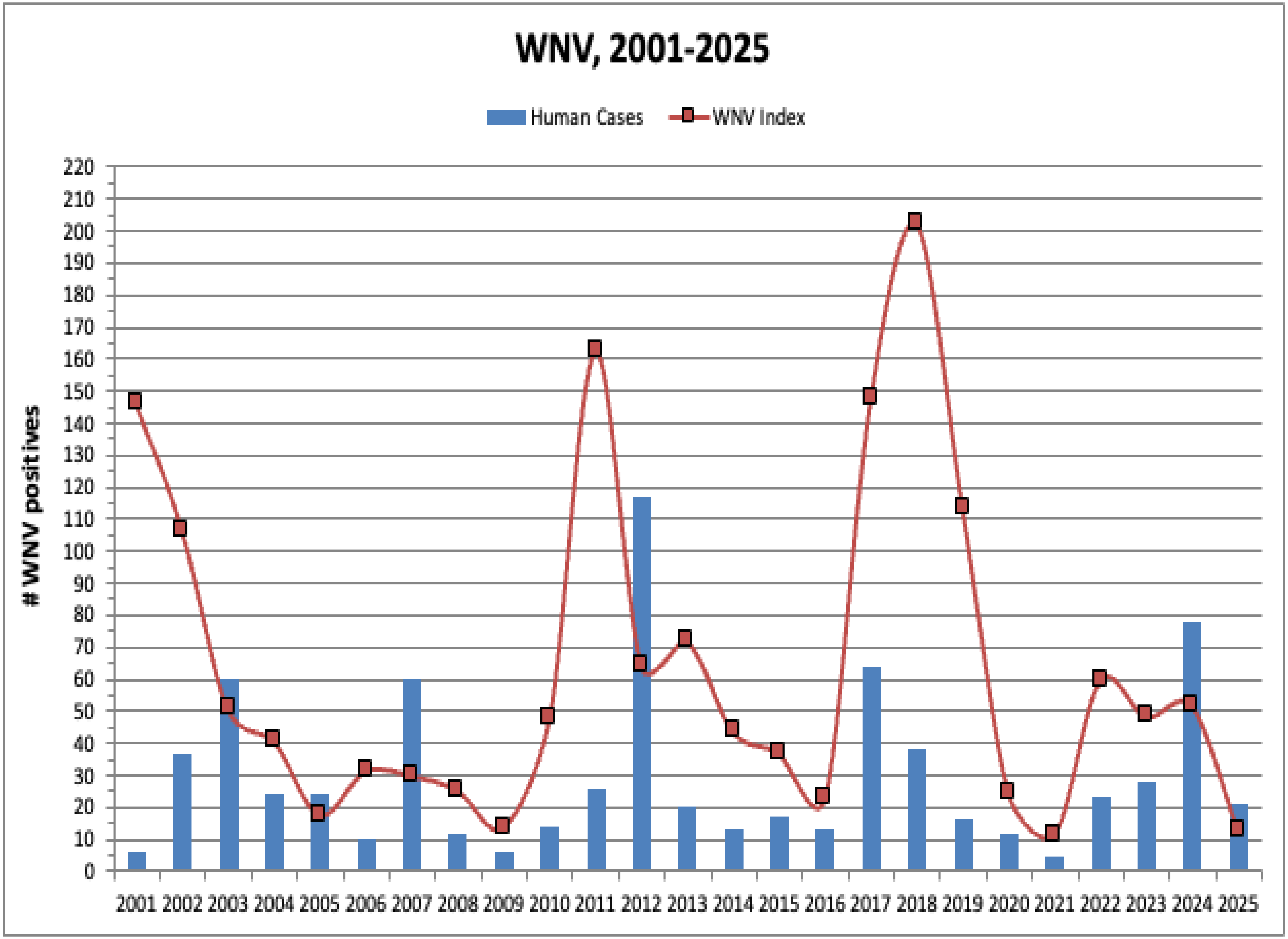
year	total pools	WNV+	% WNV+	human cases
2001	597	31	5.2%	6
2002	4032	57	1.4%	36
2003	6177	105	1.7%	55
2004	10161	126	1.2%	23
2005	15248	67	0.4%	24
2006	4785	81	1.7%	11
2007	6513	75	1.2%	55
2008	6383	50	0.8%	12
2009	4446	24	0.5%	6
2010	5990	99	1.7%	14
2011	7622	397	5.2%	25
2012	6042	125	2.1%	117
2013	7453	150	2.0%	20
2014	5038	56	1.1%	13
2015	3366	40	1.2%	15
2016	5620	36	0.6%	13
2017	6419	276	4.3%	63
2018	6599	310	4.7%	38
2019	5532	243	4.4%	16
2020	6015	59	1.0%	12
2021	7375	31	0.4%	5
2022	3611	100	2.8%	23
2023	7110	118	1.7%	28
2024	9281	256	2.8%	78
2025	9020	65	0.7%	21
MEAN	6417.4	119.1	2.0%	29.2
TOTAL	160435	2977	50.8%	729



year	WNV+ pools	EEE+ pools	counties doing surveillance	# counties testing	# WNV+ counties	total mosquito pools tested	% WNV+	Human WNV+
2001	30		2	2	1	597	5.03%	6
2002	91		11	11	6	4032	2.26%	36
2003	106	1	26	26	6	6177	1.72%	55
2004	126	2	56	56	7	10161	1.24%	23
2005	67	8	55	55	5	15248	0.44%	24
2006	81		28	28	5	4785	1.69%	11
2007	75		28	28	7	6513	1.15%	55
2008	51	1	28	28	4	6383	0.80%	12
2009	24		26	26	4	4446	0.54%	6
2010	99	3	22	22	5	5990	1.65%	14
2011	438		19	19	8	7622	5.75%	25
2012	125	3	12	6	5	6042	2.07%	117
2013	166	1	13	6	6	7453	2.23%	20
2014	56	2	15	6	4	5038	1.11%	13
2015	40		13	6	3	3366	1.19%	15
2016	36		60	6	2	5620	0.64%	13
2017	276	2	159	5	4	6419	4.30%	63
2018	310	3	159	6	5	6598	4.70%	38
2019	243		159	12	5	5532	4.39%	16
2020	59		142	9	4	6025	0.98%	12
2021	31	1	103	16	5	7357	0.42%	5
2022	100	2	79	14	5	3611	2.77%	23
2023	118	1	101	7	4	7110	1.66%	28
2024	256	4	78	16	3	9281	2.76%	78
2025	65	2	69	10	5	10063	0.65%	21

The nutrients in vertebrate blood are required for egg production by the vast majority of mosquito species, including iron and amino acids. However, nectar represents a key source of nutrition for adult mosquitoes of both sexes. For females, sugar deprivation has been associated with both reduced survival and fecundity.


Georgia Mosquito Surveillance
counties doing surveillance
counties testing
WNV+ counties
% WNV+
# counties
% WNV+
Hurricane Crisis COAG Funding
Hurricane Crisis COAG funding ends
ZIKV Funding cut
ZIKV Funding
WNV Funding cut
WNV Funding
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
0%
1%
2%
3%
4%
5%
6%
7%
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025


WNV, 2001-2025
Human Cases
WNV Index
WNV positives
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

Mosquito Surveillance: Untested Mosquitoes

Due to the reduction in WNV funding, mosquitoes collected during surveillance by the GDPH are no longer sent for testing. These mosquitoes are identified and the data are shared with county mosquito control agencies and county health departments to assist with disease risk reduction and control efforts. Although funding has continued to drop, we have been able to maintain some level of surveillance due to assistance from EH Districts that have sufficient EHS to be able to do some surveillance and identification, and from collaborations with mosquito control programs throughout Georgia. However, surveillance was only done in 62 counties in 2025 due to funding issues, a travel freeze, and a government shut-down.

Month	# mosquitoes
January	460
February	1002
March	2578
April	18361
May	29152
June	30698
July	28501
August	27834
September	34789
October	32157
November	9049
December	3332
Grand Total	**217913**

Month	# trap nights
January	3
February	
March	75
April	293
May	323
June	497
July	346
August	162
September	339
October	155
November	126
December	
Grand Total	**2319**

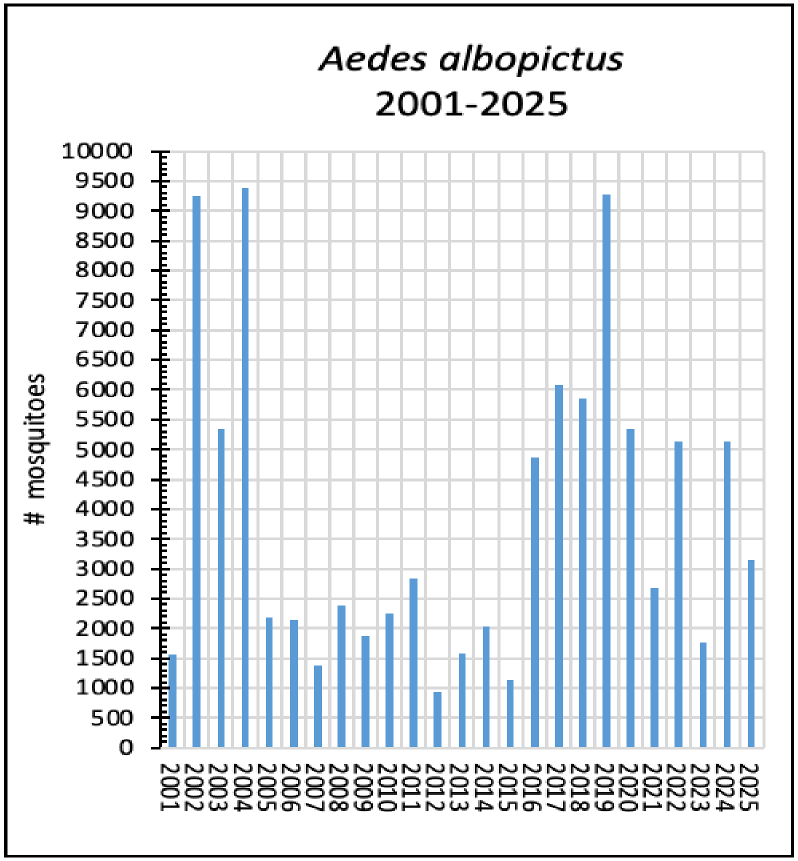
Month	# mosquitoes/trap night
January	153.33
February	
March	34.37
April	62.67
May	90.25
June	61.77
July	82.37
August	171.81
September	102.62
October	207.46
November	71.82
December	
Mean	**103.85**

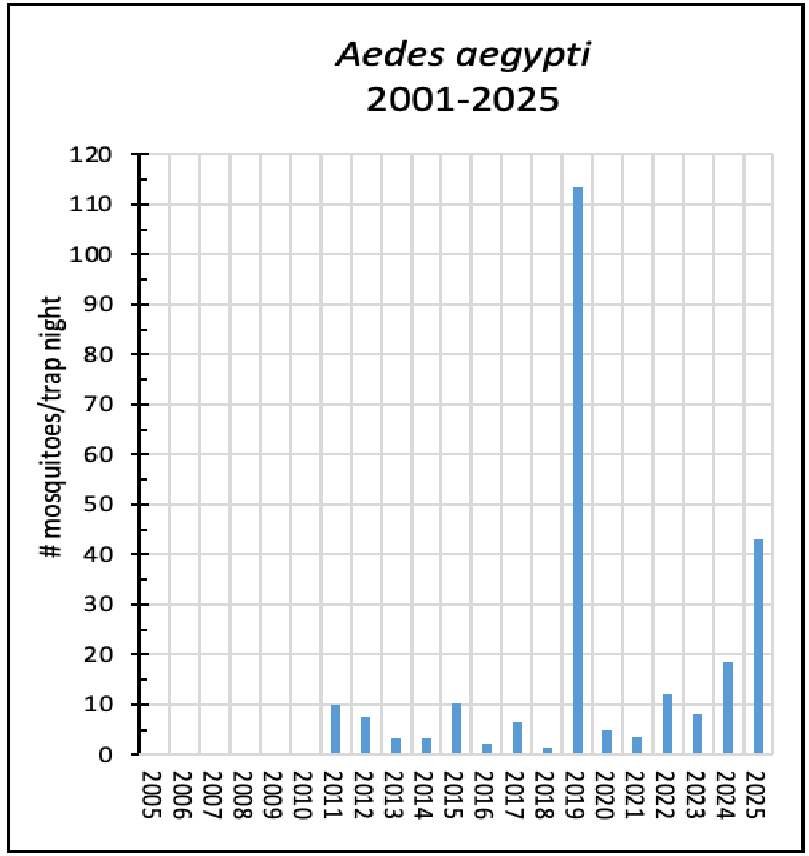
#untested mosquitoes

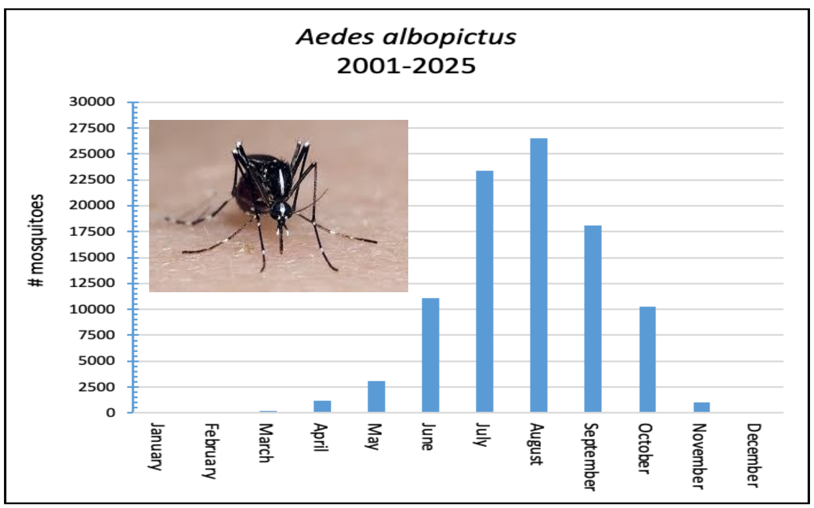
Species	# mosquitoes
Ae. aegypti	43
Ae. albopictus	1931
Ae. vexans	1887
An. crucians	429
An. punctipennis	143
An. quadrimaculatus	60
Cq. perturbans	958
Cs. melanura	26
Cx. coronator	121
Cx. erraticus	221
Cx. nigripalpus	539
Cx. quinquefasciatus	8792
Cx. restuans	842
Cx. salinarius	971
Oc. atlanticus	61
Oc. japonicus	83
Oc. sollicitans	1
Oc. sticticus	20
Oc. triseriatus	73
Oc. trivittatus	2
Or. signifera	8
Ps. ciliata	23
Ps. columbiae	20
Ps. cyanescens	17
Ps. ferox	355
Ps. horrida	3
Ps. mathesoni	4
Tx. rutilus	1
Ur. sapphirina	36
	17670

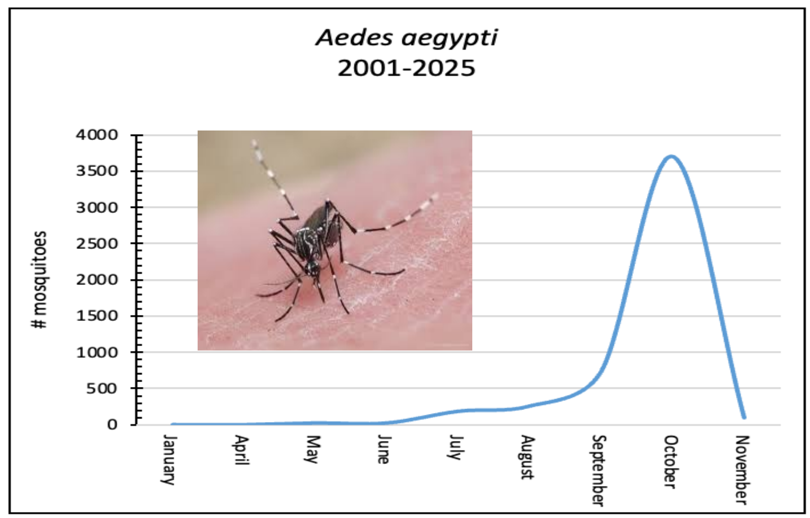
tested species

Species	SUM
Ae. albopictus	1116
Ae. vexans	2252
An. crucians	940
An. punctipennis	31
An. quadrimaculatus	554
Cq. perturbans	3033
Cs. inornata	128
Cs. melanura	164
Cx. coronator	115
Cx. erraticus	8596
Cx. nigripalpus	7552
Cx. quinquefasciatus	117094
Cx. restuans	1878
Cx. salinarius	3022
Ma. titillans	24
Oc. atlanticus	8556
Oc. canadensis	279
Oc. dupreei	118
Oc. infirmatus	480
Oc. japonicus	9
Oc. sollicitans	1617
Oc. sticticus	19
Oc. taeniorhynchus	2873
Oc. triseriatus	54
Ps. ciliata	39
Ps. columbiae	114
Ps. ferox	296
Ps. howardii	1
Ur. sapphirina	52
	161006


Aedes albopictus
2001-2025
mosquitoes
10000
9500
9000
8500
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025


Aedes aegypti
2001-2025
mosquitoes/trap night
120
110
100
90
80
70
60
50
40
30
20
10
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025


Aedes albopictus
2001-2025
mosquitoes
30000
27500
25000
22500
20000
17500
15000
12500
10000
7500
5000
2500
0
January
February
March
April
May
June
July
August
September
October
November
December


Aedes aegypti
2001-2025
mosquitoes
4000
3500
3000
2500
2000
1500
1000
500
0
January
April
May
June
July
August
September
October
November

Aedes albopictus

Trap Nights	Year	# *Aedes albopictus*	#/trap night
205	2001	1550	7.6
788	2002	9251	11.7
1538	2003	5333	3.5
2778	2004	9380	3.4
3738	2005	2182	0.6
2537	2006	2147	0.8
2509	2007	1375	0.5
2012	2008	2389	1.2
1751	2009	1869	1.1
1992	2010	2257	1.1
2444	2011	2843	1.2
1944	2012	943	0.5
2083	2013	1584	0.8
1283	2014	2037	1.6
1081	2015	1141	1.1
1582	2016	4872	3.1
1865	2017	6075	3.3
1532	2018	5851	3.8
2142	2019	9266	4.3
2402	2020	5336	2.2
715	2021	2685	3.8
231	2022	5146	22.3
342	2023	1765	5.2
5733	2024	5140	0.9
5139	2025	3136	0.6

Year	earliest report	earliest surveillance
2001	late Aug	late Aug
2002	late April	late Jan
2003	early April	early Jan
2004	early April	late Feb
2005	mid March	early Jan
2006	late April	early March
2007	mid May	late March
2008	mid June	late March
2009	mid July	mid Feb
2010	mid June	late Feb
2011	mid June	late Feb
2012	mid April	early Jan
2013	early May	early Jan
2014	mid May	mid Feb
2015	late May	early March
2016	late March	early Jan
2017	mid April	early Jan
2018	early Jan	early Jan
2019	early Feb	early Feb
2020	early May	early May
2021	mid January	early Jan
2022	late March	early Jan
2023	late March	early Jan
2024	late March	early Dec
2025	late March	early Dec

Medical importance

Aedes albopictus is most well known for transmitting dengue and chikungunya viruses but it has also been found infected in nature with the following viruses: West Nile, Eastern equine encephalitis, Japanese encephalitis. It can also transmit dog heartworm parasites.

General information

- *Aedes albopictus* is a small, dark mosquito with a white dorsal stripe and banded legs.
- They are strongly attracted to bite humans, but will feed on cats, dogs, squirrels, deer and other mammals, as well as birds. They will bite any exposed skin surface. They bite outdoors and indoors, but are usually found outside.
- These mosquitoes can use natural locations or habitats (for example tree holes and plants) and artificial containers with water to lay their eggs.
- About four or five days after feeding on blood, the female mosquito lays her eggs just above the surface of the water. When rain covers the eggs with water, the larvae hatch.
- Generally larvae feed upon small aquatic organisms, algae and particles of plant and animal material in water-filled containers.
- The entire immature or aquatic cycle (i.e., from egg to adult) can occur in as little as 7-9 days. The life span for adult mosquitoes is around three weeks.
- They have a short flight range (less than 200 m), so egg production sites are likely to be close to where this mosquito is found.
- *Aedes albopictus* mosquitoes remain alive through the winter in the egg stage in temperate climates (areas with four seasons) but are active throughout the year in tropical and subtropical locations.

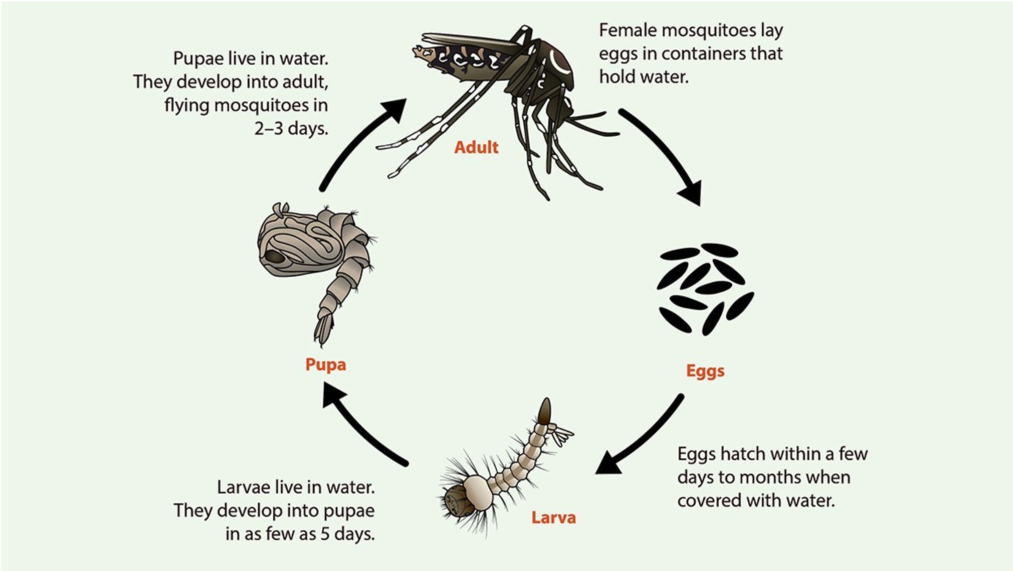
Aedes aegypti

Trap Nights	Year	# *Aedes aegypti*	#/trap night
8	2005	2	0.3
13	2006	3	0.2
	2007		
	2008		
	2009		
	2010		
8	2011	79	9.9
18	2012	136	7.6
12	2013	39	3.3
11	2014	37	3.4
8	2015	82	10.3
12	2016	26	2.2
5	2017	32	6.4
11	2018	17	1.5
38	2019	4309	113.4
7	2020	35	5.0
5	2021	18	3.6
1	2022	12	12.0
1	2023	8	8.0
9	2024	166	18.4
1	2025	43	43

Year	earliest report	earliest surveillance
2005	late Oct	mid July
2006	early Sept	late July
2011	early Sept	early Sept
2012	mid July	mid July
2013	mid Aug	early July
2014	early July	early July
2015	early July	early July
2016	late July	late July
2017	early June	early June
2018	early May	mid Feb
2019	Late July	Late July
2020	early May	early May
2021	early Sept	early Sept
2022	mid Sept	mid May
2023	late Aug	late Aug
2024	mid April	early November
2025	late July	late July

Aedes aegypti is an invasive mosquito now found in tropical, sub-tropical and temperate regions across the globe. *Aedes aegypti* spreads dengue, Zika, chikungunya and yellow fever. According to the Centers for Disease Control and Prevention, approximately 100 million people each year suffer from dengue – a debilitating and sometimes fatal disease also known as 'break-bone fever'. Other estimates put the number of infections as high as 400 million people per year and the number of infections is growing rapidly.

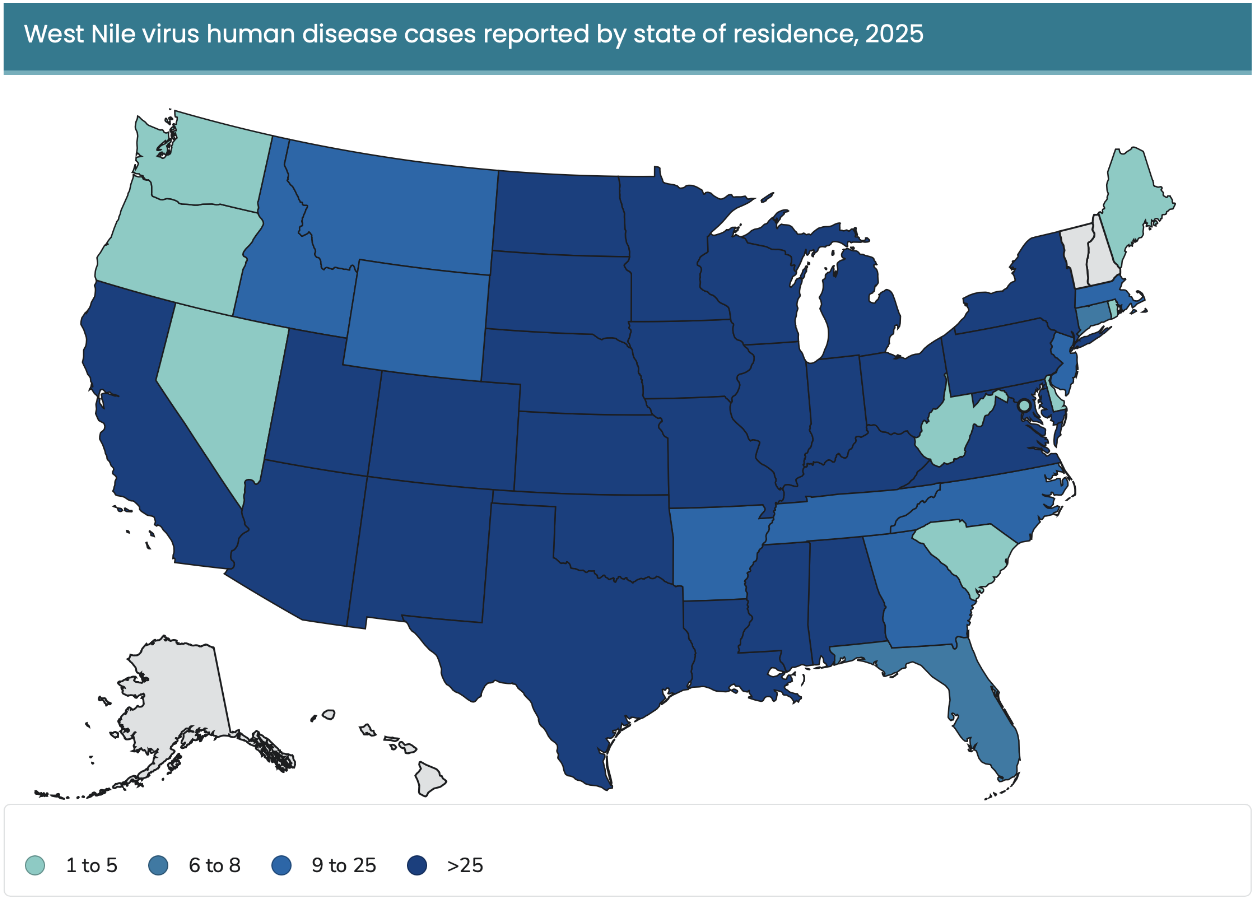
This mosquito is aggressive and likes to bite multiple times and especially during the day. They come from tropical and subtropical areas of the world.



WNV Activity Map

WNV human and non-human activity by county of residence, 2023 as of January 13, 2026.

- Total Human Cases, 2025—2076
- Neuroinvasive Human Cases, 2025—1434
- States Reporting Cases, 2025—47



Surveillance data have several limitations that should be considered when using and interpreting the data.

- Under-reporting is a limitation common to all surveillance systems that rely on healthcare providers to consider the disease as a possible diagnosis in a patient, obtain the appropriate laboratory test, and report confirmed to public health authorities.
- Cases of mild illness (non-neuroinvasive disease) are more likely to be underreported compared to more severe disease (neuroinvasive) cases. The degree of underreporting varies by disease awareness and healthcare-seeking behavior in any area. Surveillance data for non-neuroinvasive disease should not be used to make comparisons of disease activity between different locations or over time.
- Surveillance data are reported by county of residence, not the location (county or state) of exposure.
- Non-human surveillance is conducted variably across the country. Absence of non-human activity reported to CDC should not be interpreted as no risk.
- There is a lag in case reporting to CDC and states and territories may publish surveillance data on different schedules than CDC.

Florida Arbovirus Surveillance
Week 53: December 28, 2025 - January 3, 2026

Arbovirus surveillance in Florida includes endemic mosquito-borne viruses such as West Nile virus (WNV), Eastern equine encephalitis virus (EEEV), and St. Louis encephalitis virus (SLEV), as well as exotic viruses such as dengue virus (DENV), chikungunya virus (CHIKV), Zika virus (ZIKV), and California encephalitis group viruses (CEV). Malaria, a parasitic mosquito-borne disease is also included. During the period of December 28, 2025 – January 3, 2026, the following arboviral activity was recorded in Florida.

WNV activity: No human cases of WNV infection were reported this week. No horses with WNV infection were reported this week. One sentinel chicken tested positive for antibodies to WNV in Pasco County. In 2025, positive samples from six symptomatic humans, seven asymptomatic blood donors, one horse, one duck, and 398 sentinel chickens have been reported from 29 counties.

SLEV activity: No human cases of SLEV infection were reported this week. No sentinel chicken tested positive for antibodies to SLEV this week. In 2025, positives samples from four sentinel chickens have been reported from three counties.

EEEV activity: No human cases of EEEV infection were reported this week. No horses with EEEV infection were reported this week. No sentinel chickens tested positive for antibodies to EEEV this week. In 2025, positive samples from nine horses, two emus, one emu flock, one goat, and 59 sentinel chickens have been reported from 22 counties.

International Travel-Associated Dengue: One case of dengue was reported this week in a person that had international travel. In 2025, 417 travel-associated dengue cases have been reported.

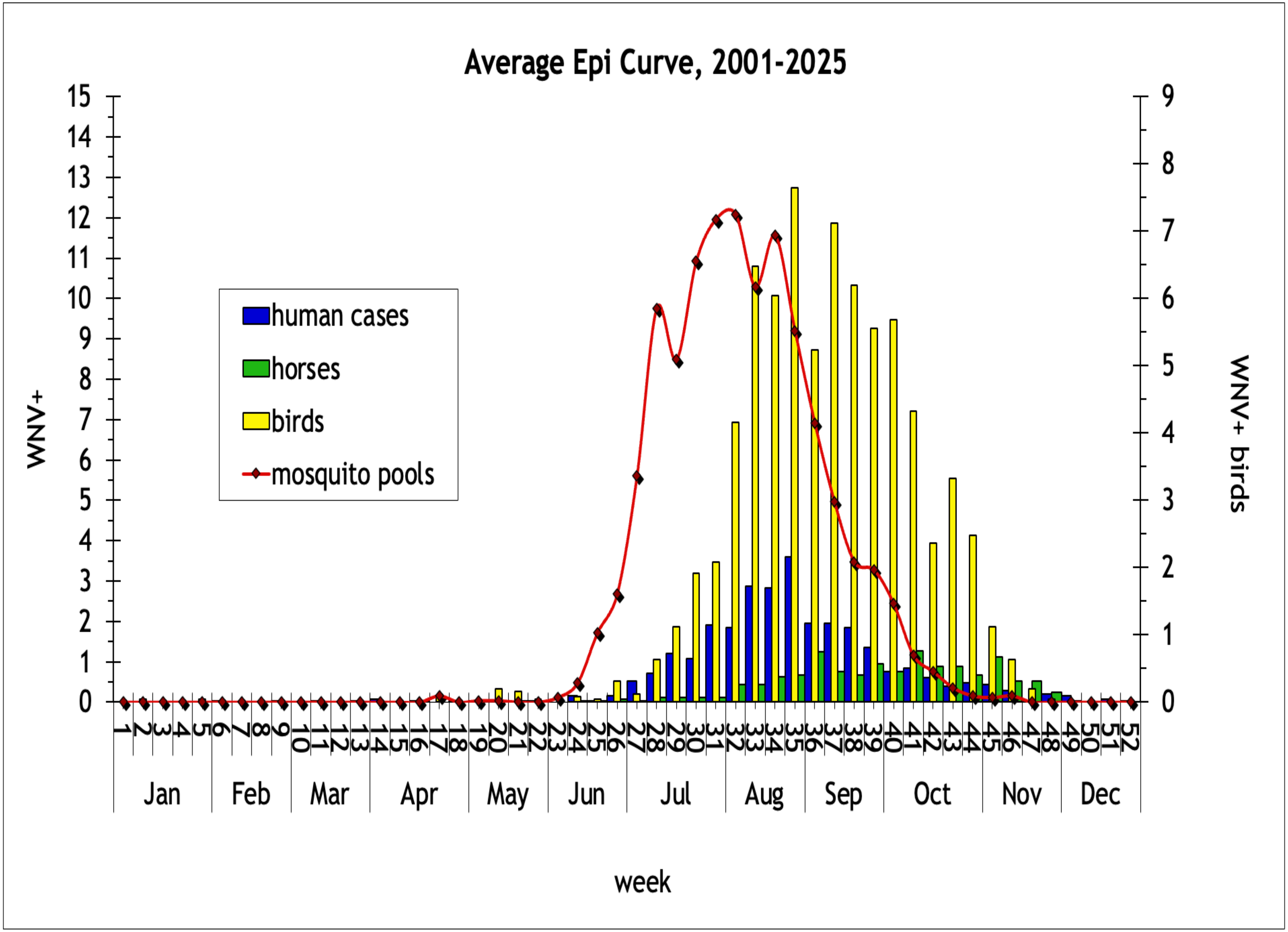
Dengue Cases Acquired in Florida: No cases of locally acquired dengue were reported this week. In 2025, positive samples from 62 humans and four mosquito pools have been reported from four counties.

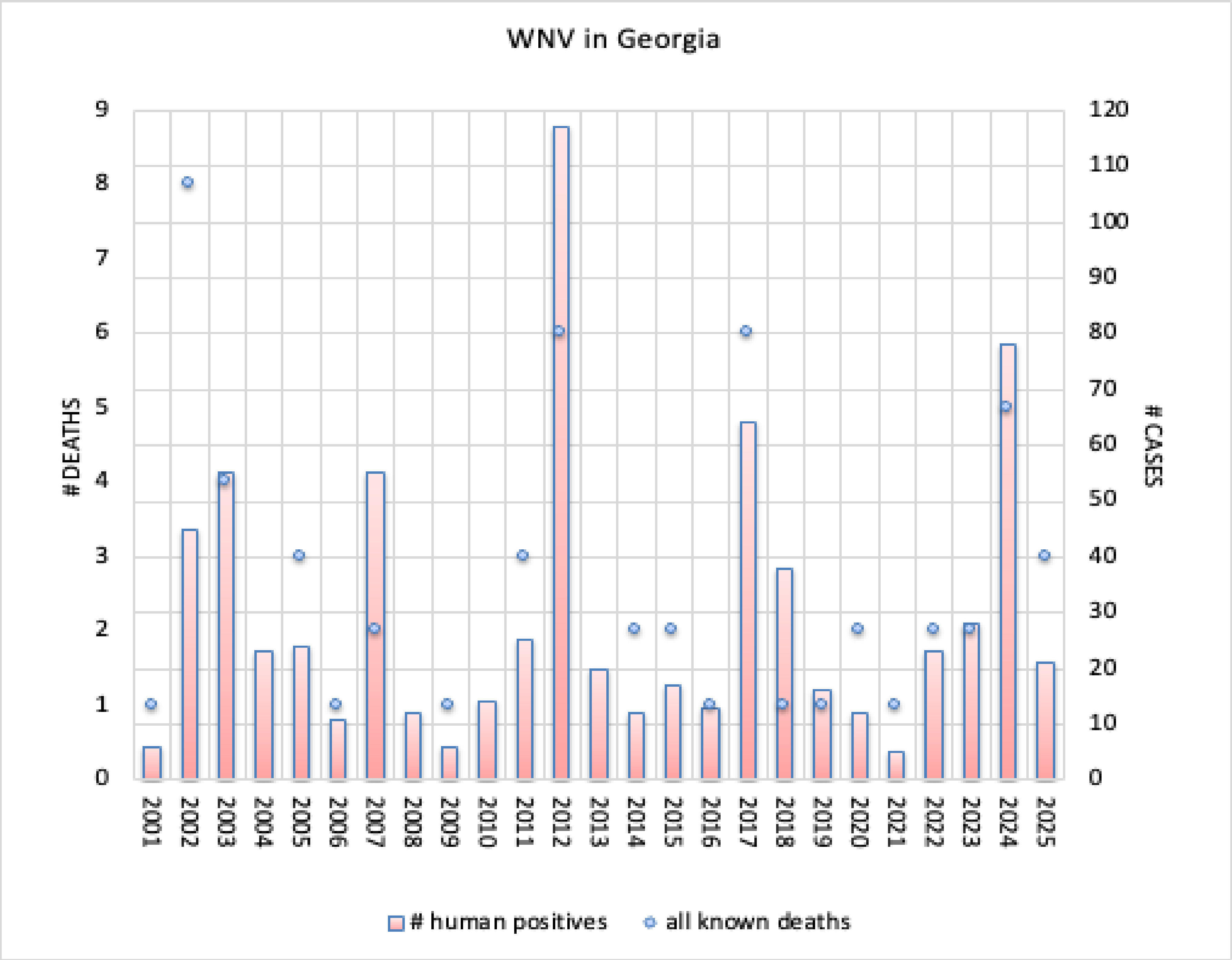
International Travel-Associated Chikungunya Fever Cases: Nine cases of chikungunya fever were reported this week in persons that had international travel. In 2025, 277 cases of travel-associated chikungunya fever have been reported.

Chikungunya Fever Cases Acquired in Florida: No cases of locally acquired chikungunya fever were reported this week. In 2025, no cases of locally acquired chikungunya fever have been reported.

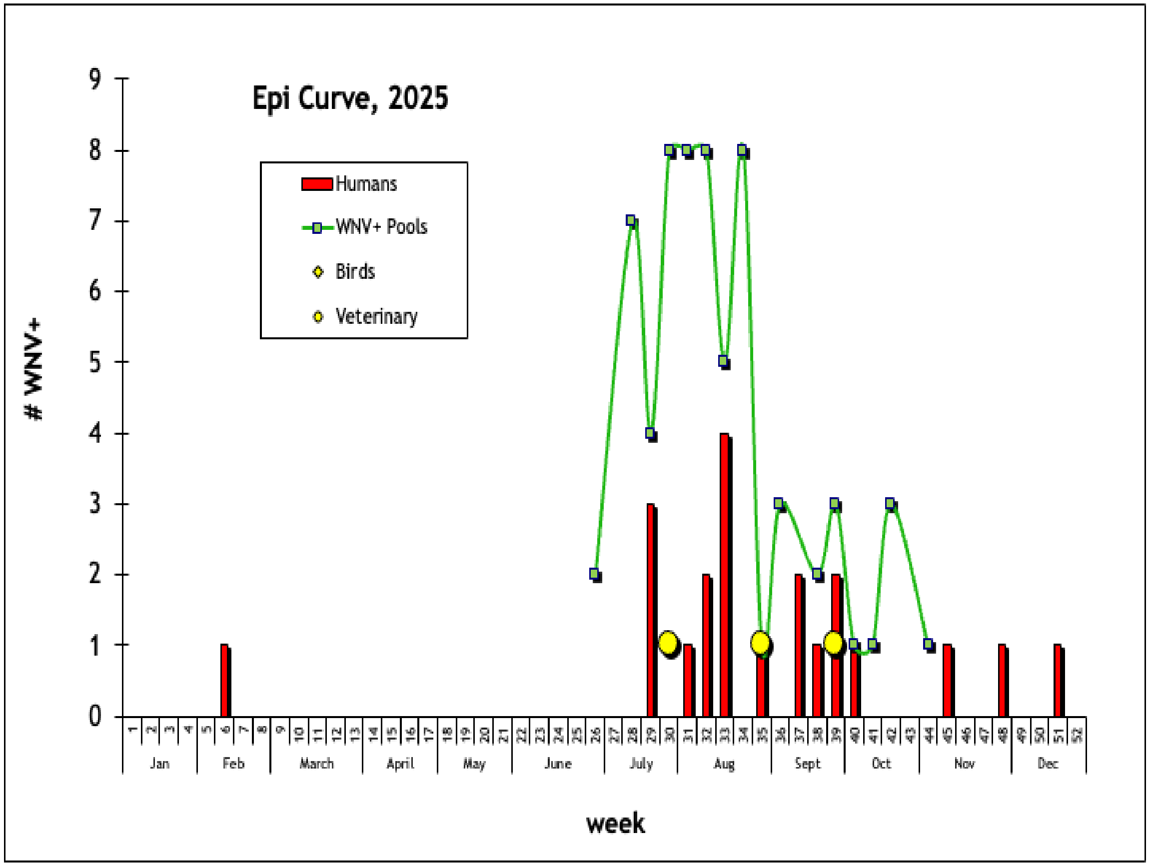
International Travel-Associated Oropouche Fever cases: No cases of Oropouche fever were reported this week. In 2025, one case of travel-associated Oropouche fever has been reported.

International Travel-Associated Zika Fever Cases: No cases of Zika fever were reported this week in persons that had international travel. In 2025, no travel-associated Zika fever cases have been reported.


Average Epi Curve, 2001-2025
human cases
horses
birds
mosquito pools
WNV+
WNV+ birds
week
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec



WNV in Georgia
DEATHS
CASES
0
1
2
3
4
5
6
7
8
9
0
10
20
30
40
50
60
70
80
90
100
110
120
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
human positives
all known deaths



The epidemic curve (epi curve) shows the progression of an outbreak over time.

THANK YOU to the district and county public and environmental health employees, mosquito control workers, interns, university students/staff, veterinarians, and healthcare providers who collected much of the data summarized in this document.

GDPH Vector-Borne & Zoonotic Diseases Team

- Rosmarie Kelly, PhD (Entomologist)
- "Tiffany" Thuy-vi Thi Nguyen, PhD (Entomologist)
- Shawna Stuck (Epidemiologist)
- Julie Gabel, DVM

Constructing epidemic curves is a common and very important practice in epidemiology. An epidemic curve, also known as an epi curve or epidemiological curve, is a statistical chart used in epidemiology to visualize the onset of a disease outbreak. It can help with the identification of the mode of transmission of the disease. It can also show the disease's magnitude, whether cases are clustered or if there are individual case outliers, its trend over time, and its incubation period.

For more information on vector-borne diseases and epi curves, go to https://www.ncbi.nlm.nih.gov/books/NBK52945/.