



Louisiana Arbovirus Surveillance Summary 2022

CDC Week 48

From January 1 - December 3, 2022

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This report presents currently available information about arboviral diseases in Louisiana. Cases of human infection and instances of positive mosquito testing can be used to understand the burden, risk, timing, and geographic distribution of arboviral diseases in the state.

Arboviral diseases can be divided into two main categories: imported and endemic. **Imported arboviral diseases** are instances where individuals test positive for an infection after travelling to another country. These diseases are not typically transmitted within Louisiana and are not circulating in local mosquito populations. The imported arboviral diseases included in this report are chikungunya, dengue, and Zika. **Endemic arboviral diseases** are infections which occur in Louisiana, such as Eastern Equine Encephalitis, St. Louis Encephalitis, and West Nile Virus. West Nile (WN) is the most common arboviral disease in the state and has been actively transmitted since it was first detected in 2002.

Laboratories and health care providers report cases of arboviral diseases to the Office of Public Health under the State Sanitary Code. However, not all cases are able to be detected. Between 80-90% of all WN cases are asymptomatic, meaning these individuals would not seek testing. Occasionally these asymptomatic cases are detected through blood donation testing (**PVD**). Many symptomatic cases can be mild to moderate flu-like illnesses (**West Nile Fever**), and might not seek medical care or be tested. Only a small fraction of cases develop neuroinvasive disease (**NID**), which includes meningitis and encephalitis. People ages 65 and older are at higher risk for NID. Due to the severe nature of these cases, they are consistently detected and reported.

Since such a small percentage of human infections are detected, it is also important to monitor mosquito populations. Every year 20,000-50,000 mosquito pools (aggregate samples of 50+ mosquitoes from the same sample site) from approximately 30 parishes are submitted for testing. These mosquitoes are tested for endemic viruses in order to detect when and where viruses are transmitted.

Table 1. 2022 Arbovirus Activity, Louisiana, Week 48

Arbovirus	Mosquito	Avian	Equine	Human			
				NID	F	Deaths	PVD
California Serogroup							
Chikungunya					1		
Dengue					4		
Eastern Equine Encephalitis	5		6				
St. Louis Encephalitis	4						
West Nile	1024	11	3	40	7	6	6
Zika							
Total	1033	11	9	40	12	6	6

NID - neuroinvasive disease F - fever PVD - presumptive viremic donor

Table 2. Imported Arbovirus Activity by Parish[†], Week 48

Parish	CHIKV	DENV	ZIKV	
	H	H	H	
			F	PVD
Region 1	1	4	0	0
Total	1	4	0	0

H - human M - mosquito

F - fever PVD - presumptive viremic donor

CHIKV - Chikungunya virus DENV - Dengue virus ZIKV - Zika virus

Table 3. Endemic Arbovirus Activity by Parish, Week 48

Parish	CAL	EEEV				SLEV				WNV				H		
	H	M	A	E	H	M	A	E	H	M	A	E		H		
														NID	F	PVD
Allen				1						2						
Ascension				1						44						
Assumption										2						
Bossier										1						
Caddo										20						
Calcasieu										13						
Cameron										2						
East Baton Rouge						1				45						
Iberia						2				18						
Jefferson										15		1				
Jefferson Davis										2						
Lafayette										10						
Lafourche				1						6						
Livingston				1								1				
Orleans										50						
Ouachita										170						
Pointe Coupee										4						
St. Bernard										7						
St. Charles										12						
St. James		1								4						
St. John the Baptist										9						
St. Martin				1		1				53						
St. Mary		1								10						
St. Tammany		2								136	11					
Tangipahoa		1								327						
Terrebonne										4						
Vermilion												1				
West Baton Rouge				1						58						
LDH Region 1*														1		2
LDH Region 2*														5	3	1
LDH Region 3*														1		
LDH Region 4*														1		
LDH Region 5*																
LDH Region 6*														2	1	
LDH Region 7*														6	1	1
LDH Region 8*														4		
LDH Region 9*														20	2	2
Total	0	5	0	6	0	4	0	0	0	1024	11	3		40	7	6

A - avian E - equine H - human M - mosquito

NID - neuroinvasive disease F - fever PVD - presumptive viremic donor

CAL - California serogroup viruses EEEV - Eastern Equine Encephalitis virus SLEV - St. Louis Encephalitis virus WNV - West Nile virus

* Human cases are reported by LDH Region. Please see Regional Map on next page for reference

Note: Not all parishes collect and test mosquito pools for virus activity. The information provided in this report should be used to infer statewide and regional trends and activity of virus transmission. If a parish is not included on this report, that does not mean that arbovirus transmission is not occurring in that area.

Figure 2. WNV-Positive Humans Reported in Louisiana, by MMWR Week of Onset 2020-2022, Week 48

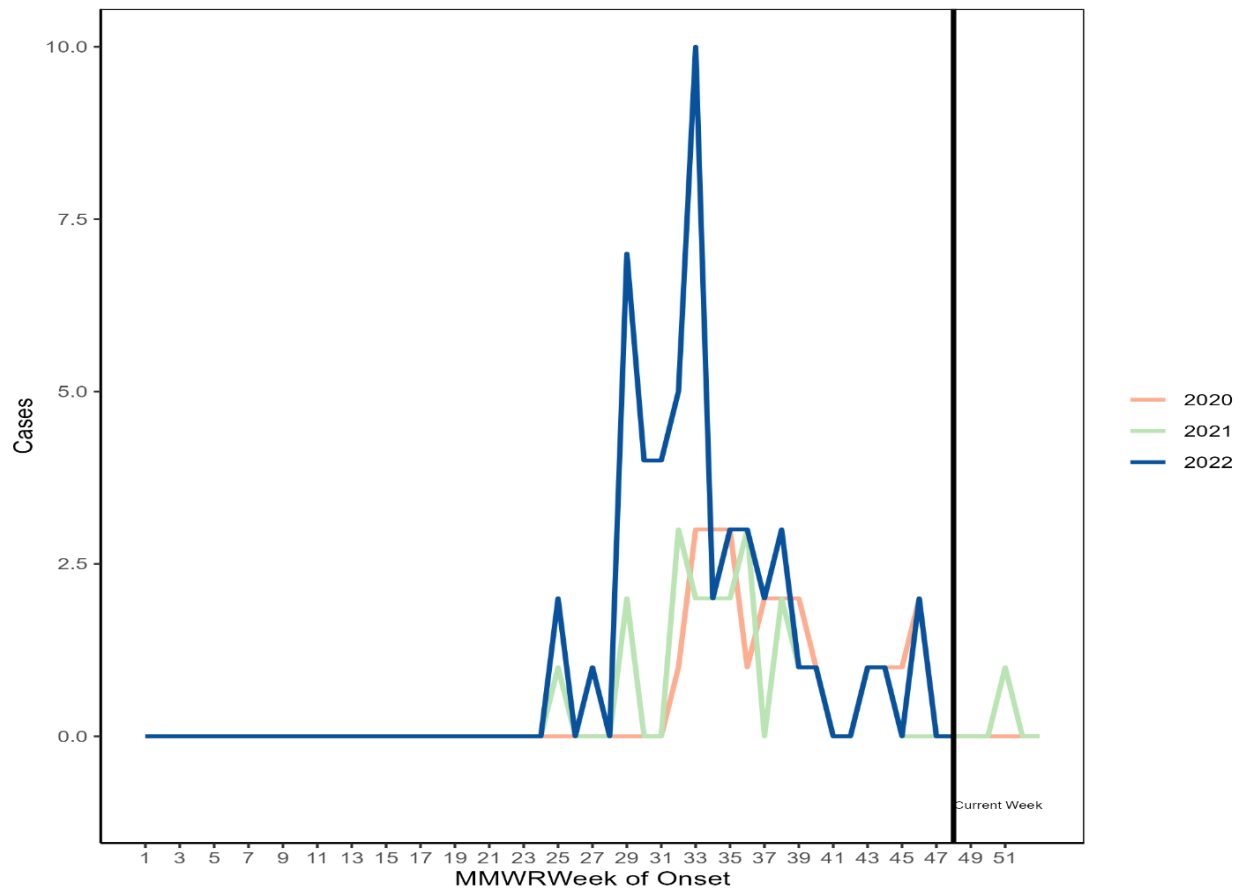


Figure 1. LDH Regional Map

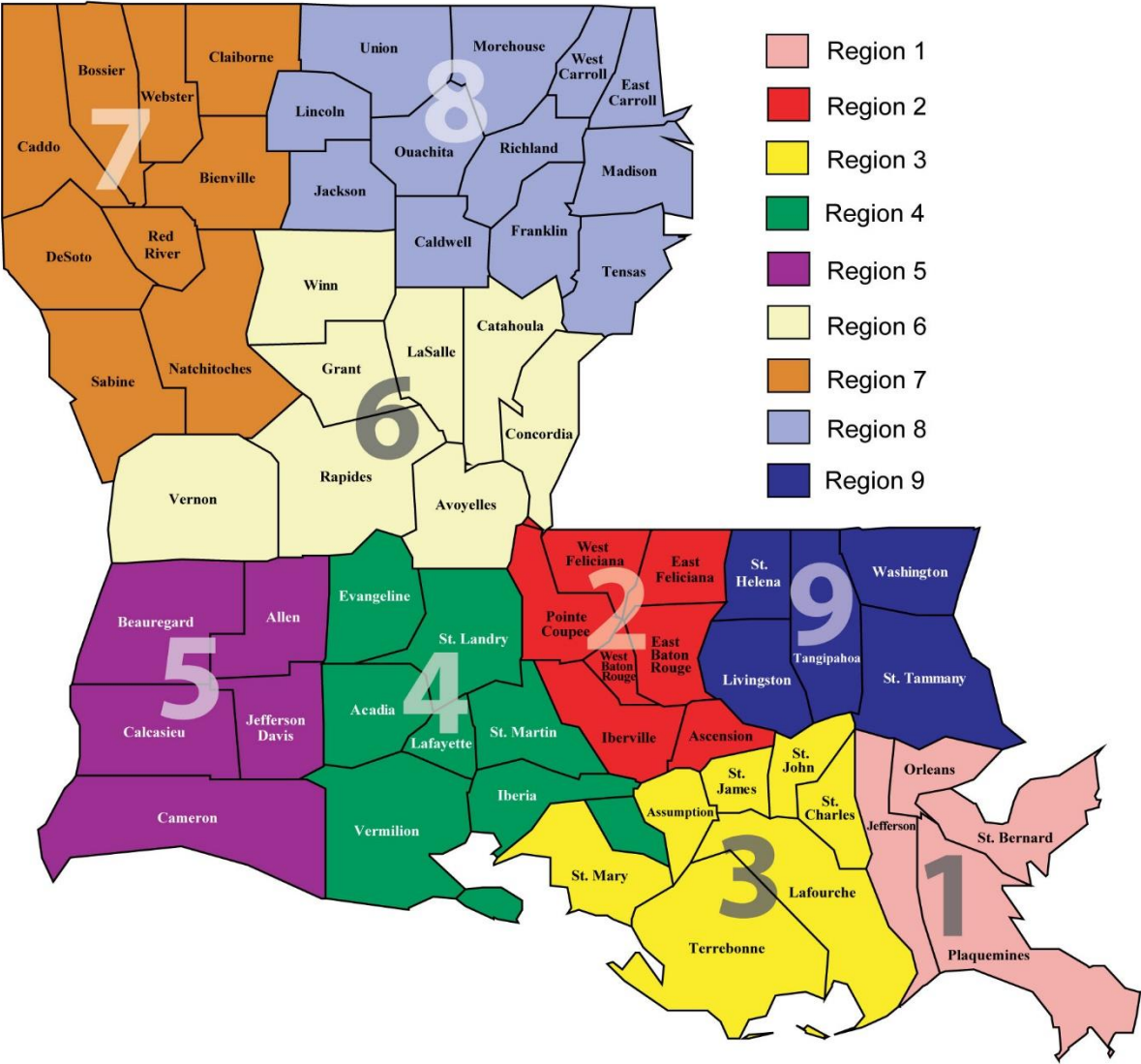
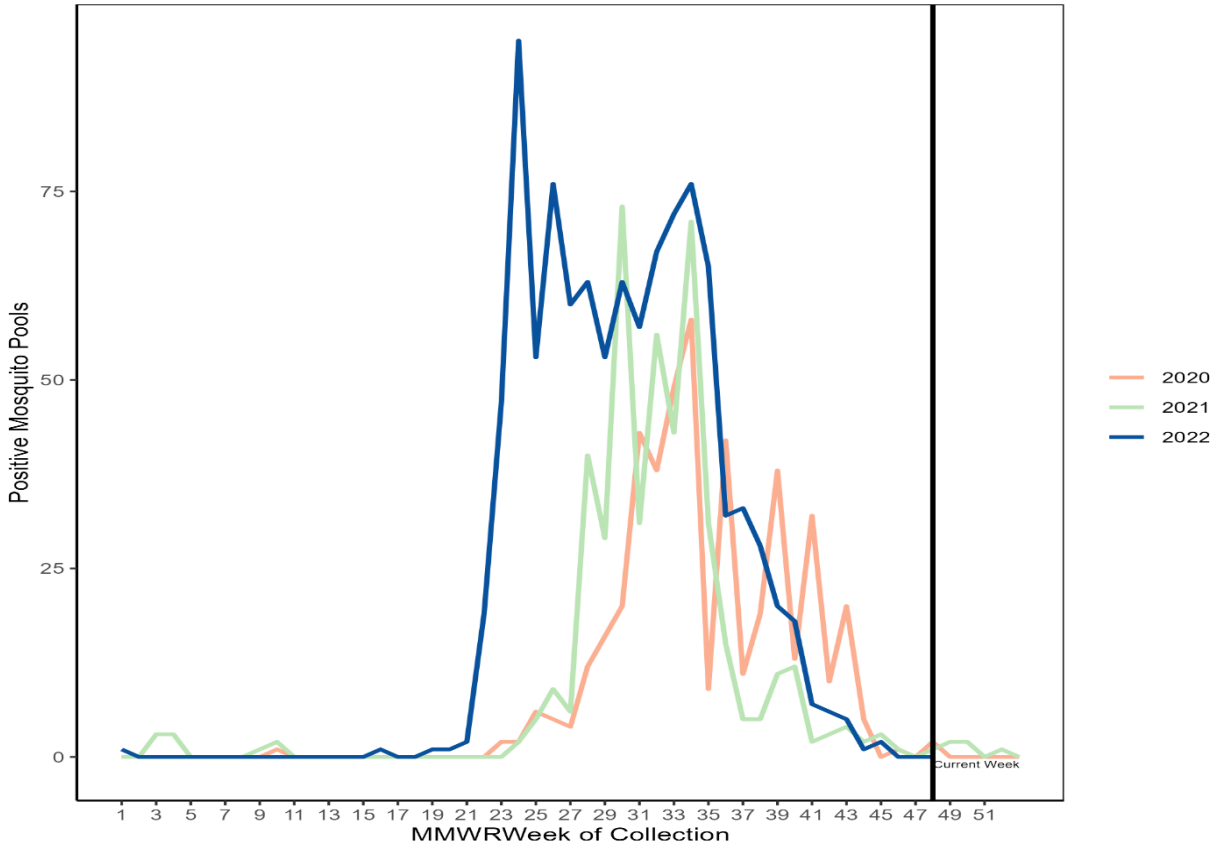


Figure 3. WNV-Positive Mosquito Pools Reported in Louisiana, by MMWR Week of Collection, 2020-2022, Week 48



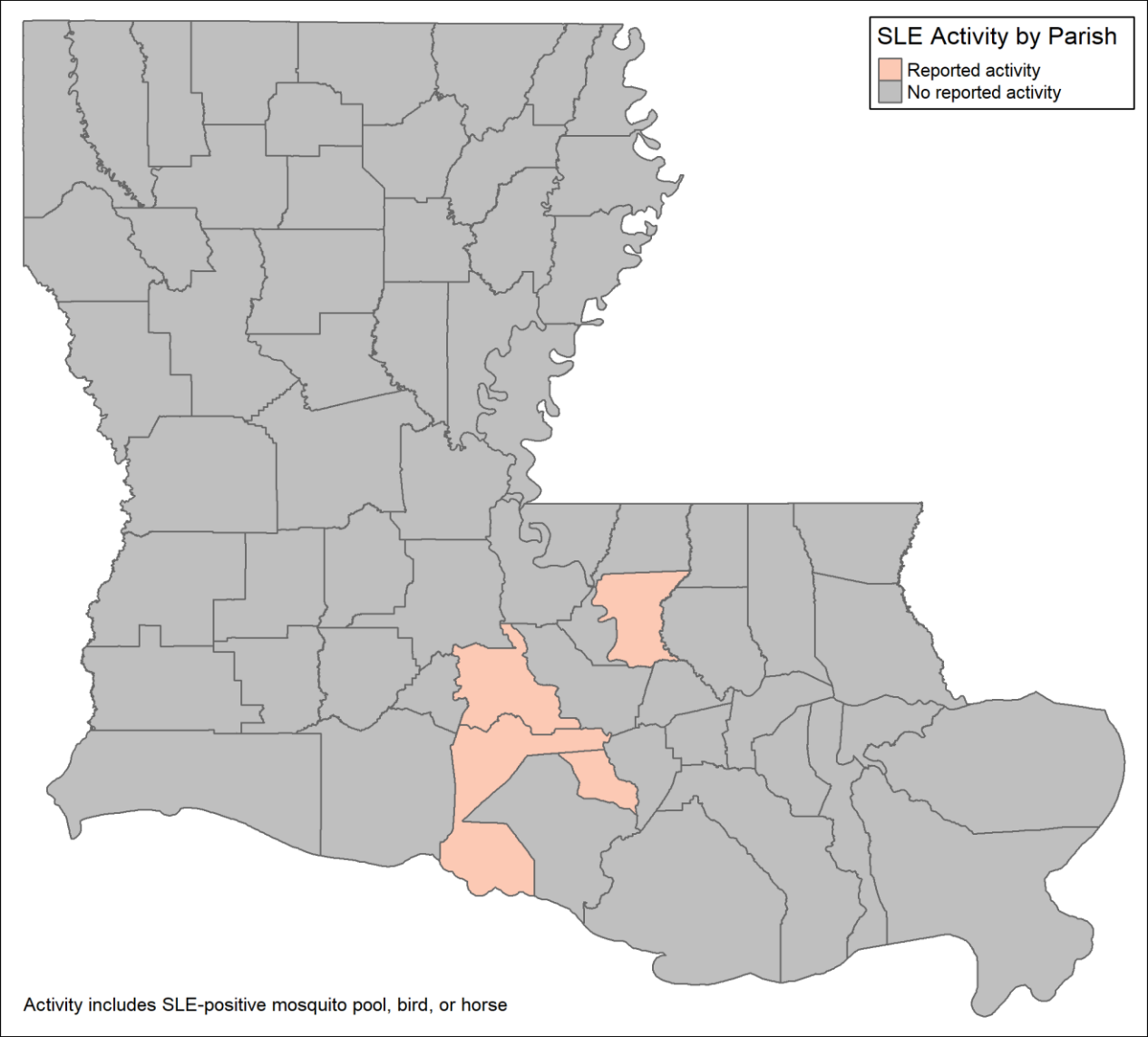
*Mosquito pools are reported by date of collection, testing data for the most recent week may not be complete at the time of report.

WNV Activity by Parish

- Reported activity
- No reported activity

Activity includes WNV-positive mosquito pool, bird, or horse

Figure 5. Louisiana Parishes Reporting St. Louis Encephalitis Activity, Week 48



EEE Activity by Parish

Reported activity

No reported activity

Activity includes EEE-positive mosquito pool, bird, or horse