

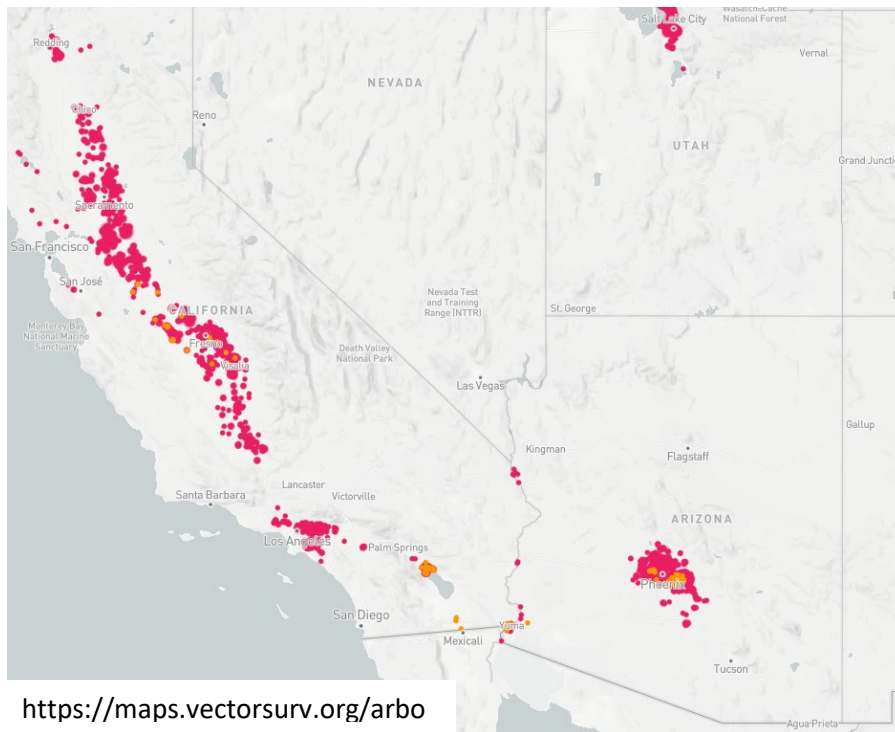


DECEMBER 2021- Arboviral Disease Update

12.23.2021

2021 Arboviral Activity in the Pacific Southwest

- **Arizona:**
 - WNV: 1,567 human cases
 - SLE: 6 human case
- **California**
 - WNV: 116 human cases
 - SLE: 3 human case



The [California Department of Public Health](https://www.cdph.ca/) (CDPH) reports **116** human cases from **27** counties and **2,262** mosquito samples have tested **positive for WNV** in 2021. In Arizona a total of **908** WNV positive pools have been reported by six counties. **SLE-positive mosquito pools** have been detected in California (Imperial and Riverside County and in the Central Valley region) and in western and central Arizona (Yuma and Maricopa counties).

Mosquito Surveillance Update

Eleven counties have set a total of more than **58,000 mosquito traps** during Jan-December 2021¹. These traps have caught more than **17,000 *Culex spp* mosquito pools**, with the top species being *Culex quinquefasciatus* and *Culex tarsalis*. Maricopa County has trapped the greatest amount of *Culex* female mosquitoes (peaking between the end of August and the middle of September), followed by Pinal and Yuma counties.

Traps Set per Month

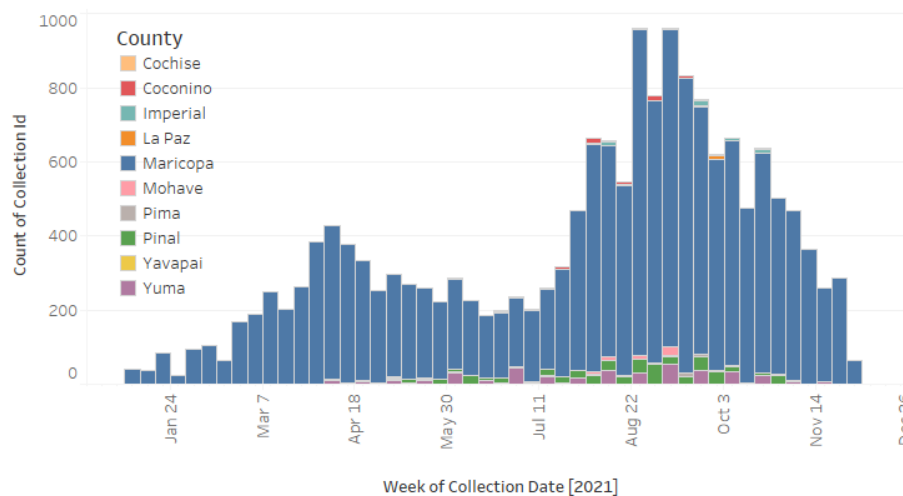
	Janu..	Febr..	Mar..	April	May	June	July	Aug..	Sept..	Octo..	Nov..	Dece..	Tot
Cochise									2	2			4
Coconino					2	24	22	62	72				182
Imperial								15	30	31			76
La Paz						2		26	20	8			56
Maricopa	3,347	3,406	3,932	3,982	3,520	4,227	5,010	7,799	9,195	6,336	5,141		55,895
Mohave								55	66				121
Pima				2	15	8		62	140	55	7	11	300
Pinal				67	78	127	163	272	364	132			1,203
Santa Cr..										1			1
Yavapai					18	10	25						53
Yuma				26	42	136	79	129	198	118	33		761
Grand T..	3,347	3,406	3,932	4,077	3,675	4,534	5,299	8,420	10,087	6,683	5,181	11	58,652

Month of .. Multiple values

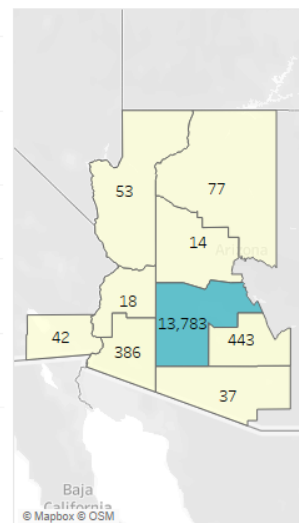
Culex spp. Pools Collected

<i>Culex quinquefasciatus</i>	11,597
<i>Culex tarsalis</i>	5,471
<i>Culex erythrothorax</i>	105
<i>Culex erraticus</i>	50
<i>Culex pipiens/quinquefasciat..</i>	5
<i>Culex pipiens</i>	1
<i>Culex pipiens/restuans/salin..</i>	1
Grand Total	17,230

Culex spp. pools collected



Culex pools collected by county

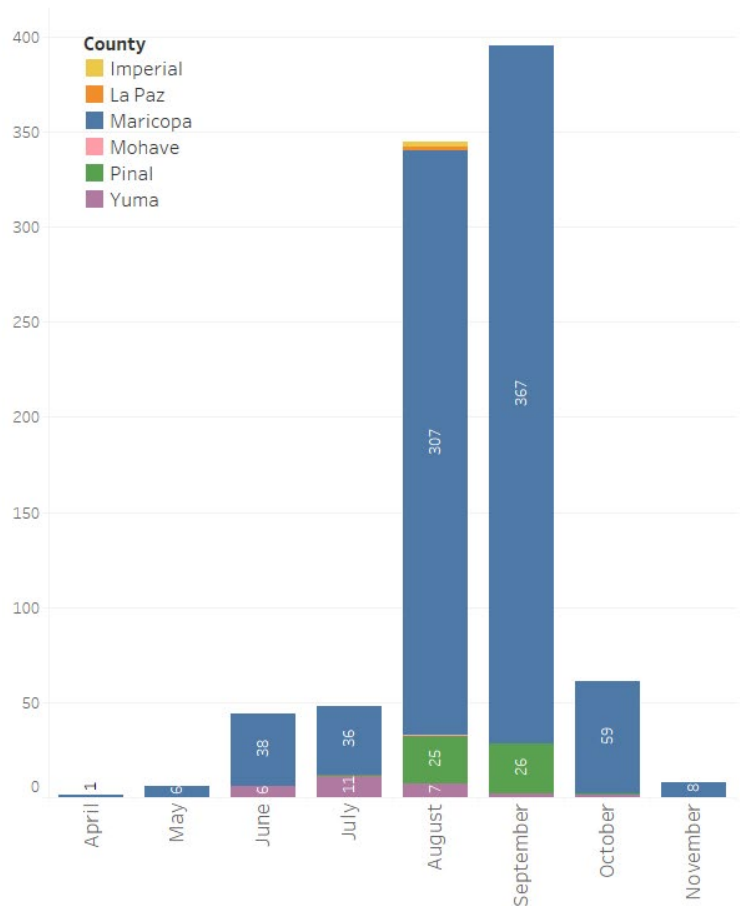


¹ Data exported from ArizonaSurv on 12/15/21. Maricopa County Vector Control data included is up to the end of November 2021.

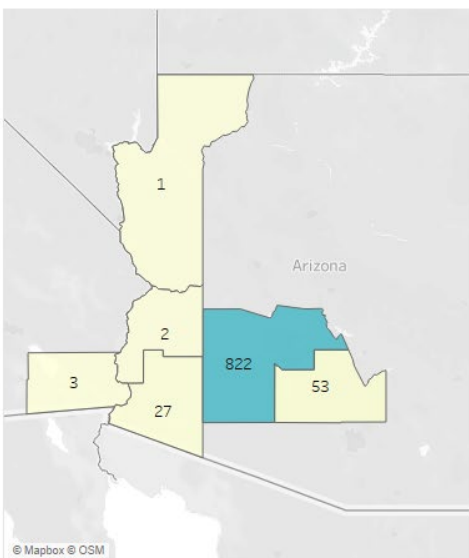
908 pools tested WNV positive this year, 822 in Maricopa County², 53 in Pinal County, 27 in Yuma County, 3 in Imperial County (bordering Arizona), 2 in La Paz and 1 in Mohave County. The month of September has seen the highest number of WNV positive pools detected (395). The month of October had 61 WNV positive pools and in November only 8 new positive pools were collected in Maricopa County.

	WNV
Imperial	3
La Paz	2
Maricopa	822
Mohave	1
Pinal	53
Yuma	27
Tot	908

Positive WNV Pools by Month of Collection



Positive WNV Pools by County



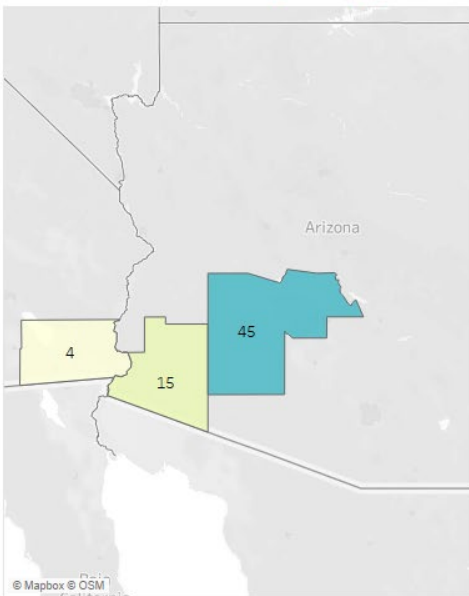
² Data exported from ArizonaSurv on 12/15/21. Maricopa County Vector Control data included is up to the end of November 2021. Updated WNV positive data for Maricopa County can be found here:

<https://www.maricopa.gov/2476/Mosquito-Borne-Disease-Statistics>

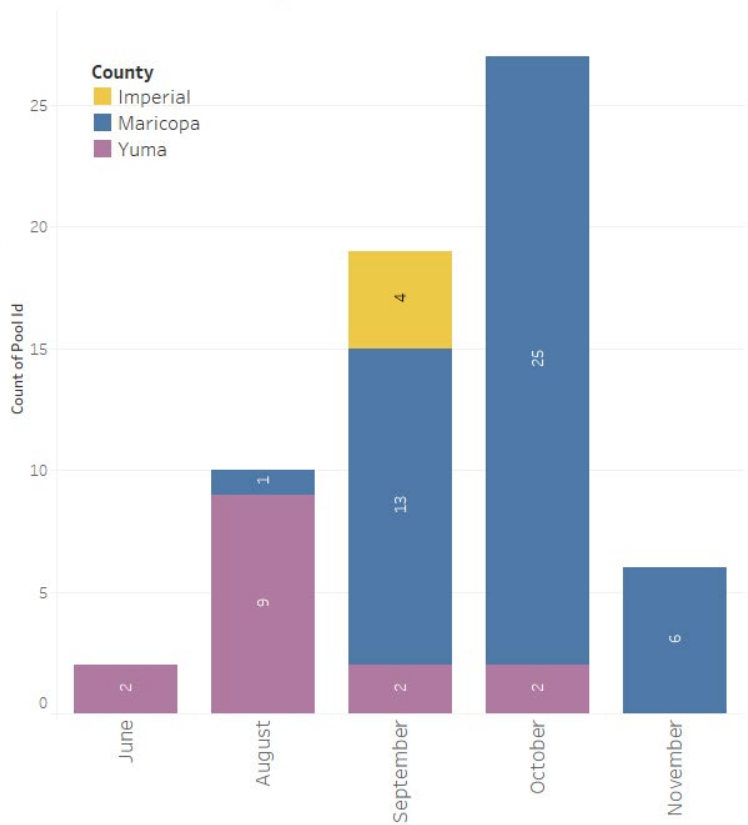
64 mosquito pools tested positive for SLE, 45 in Maricopa County², 15 in Yuma County and 4 in Imperial County (bordering Arizona). During the month of October SLE positive pools have been detected in Maricopa (25) and Yuma (2) counties. During November 6 more positive pools were collected in Maricopa County.

	SLEV
Imperial	4
Maricopa	45
Yuma	15
Tot	64

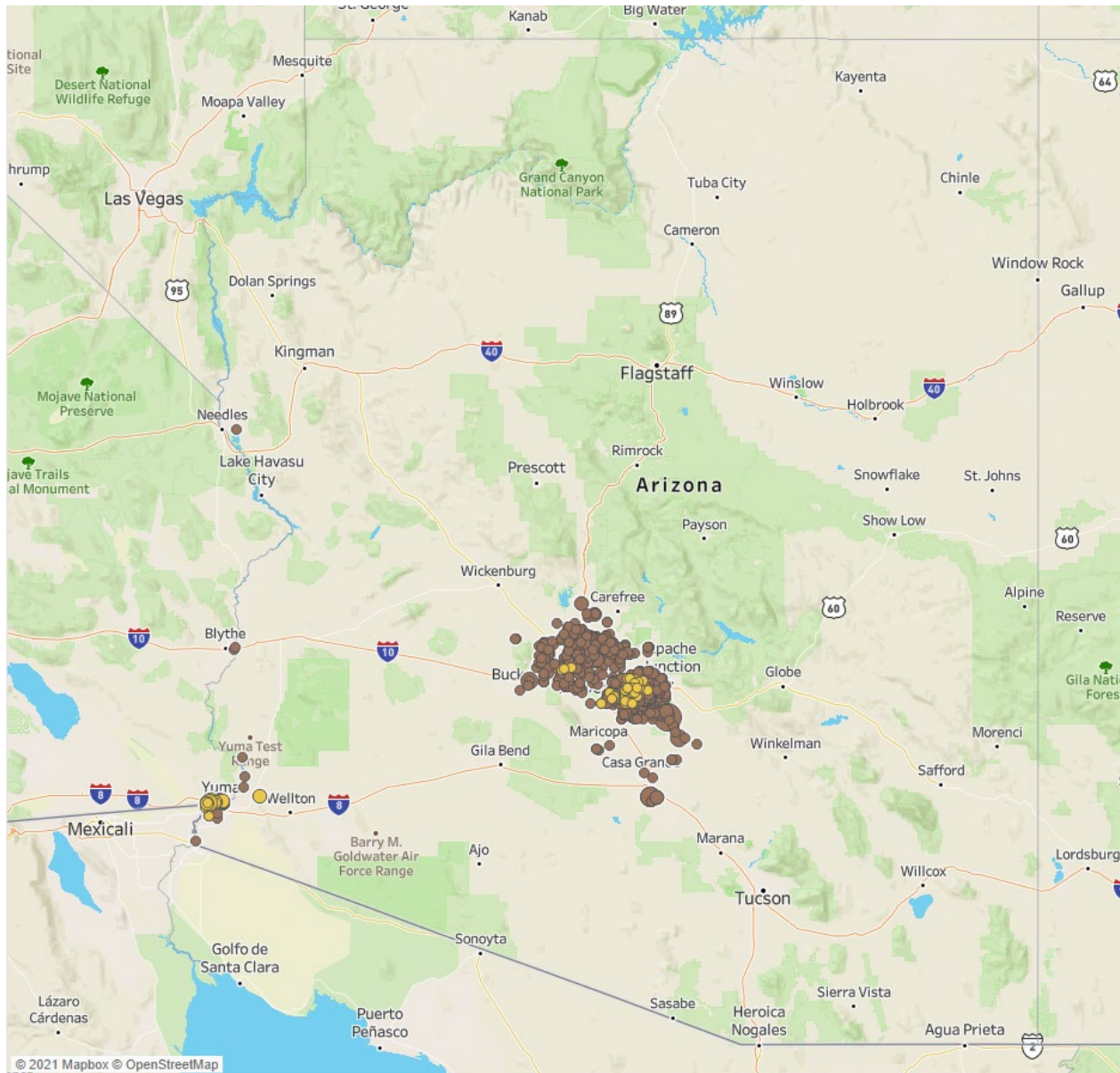
Positive WNV Pools by County



Positive WNV Pools by Month of Collection



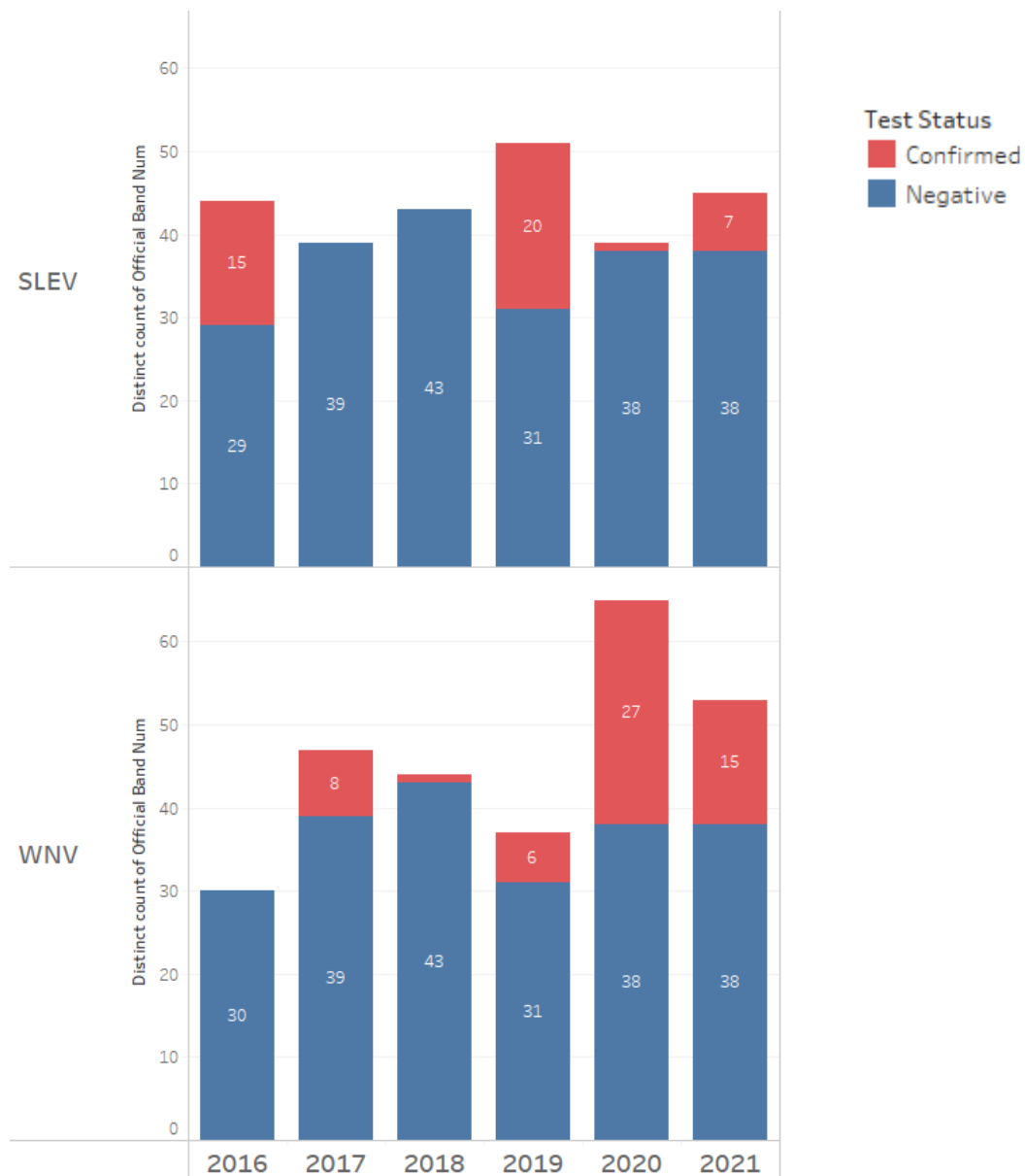
Map of the positive mosquito pools detected in Arizona (WNV+: brown dots, SLE +: yellow dots)³.



³ Data exported from ArizonaSurv on 12/15/21. Maricopa County Vector Control data included is up to the end of November 2021. Updated WNV positive data for Maricopa County can be found here: <https://www.maricopa.gov/2476/Mosquito-Borne-Disease-Statistics>

Sentinel Chicken Surveillance Update

In Arizona sentinel chicken flocks are used by the Yuma County Pest Abatement District for sentinel surveillance of WNV, SLE and Western Equine Encephalitis virus (WEE). As of November 2021, there were **15 chicken that seroconverted to WNV** (two new from the previous month). **Seven sentinel chicken converted to SLE**, one in August, three in September, one in October and two in November. In comparison, during 2020 there were 27 chicken seroconversions to WNV and one SLE.



Human Surveillance Update

As of 12/23/2021 there have been **1,567 confirmed and probable human WNV cases reported in Arizona**, but other 157 are suspect cases with positive WNV laboratory results, pending investigation. So the likely total is **~1,724 cases**. This is the highest number of cases ever reported in Arizona. The month of September has reached the peak of 886 cases (including suspect cases), but cases have finally decreased in November (62 cases) and December (9 cases). The majority of the cases have been reported in Maricopa County (1,478), followed by Pinal (125) and Pima (101) counties. A total of **12 counties** have reported at least one case. The overall state WNV activity is well above the 5 year-to-date median Jan-December (78 cases).

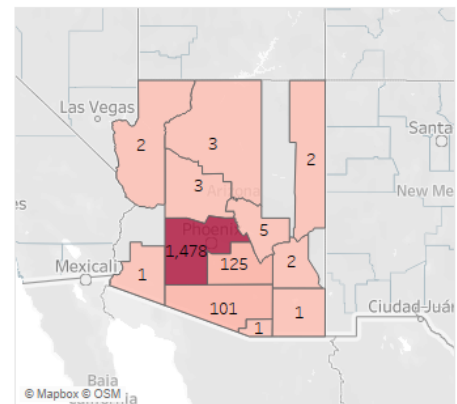
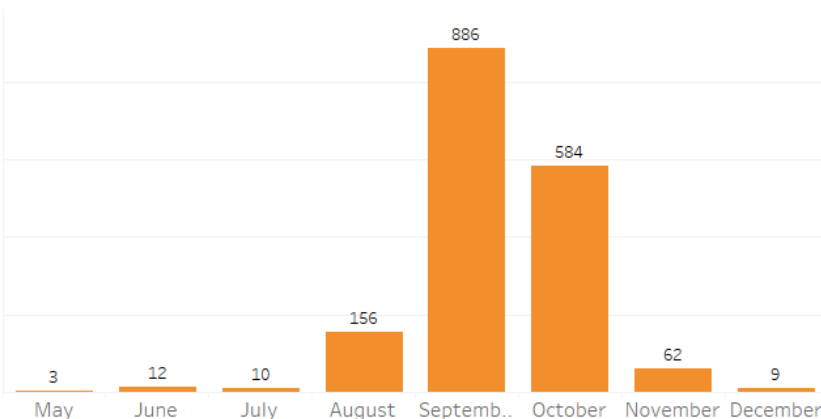
2021 Cases

	WNV
CONFIRMED	472
PROBABLE	1,095
SUSPECT	157
Grand Total	1,724

Historical year-to-date cases

	2020	2019	2018	2017	2016
WNV	11	174	27	110	78
Total	11	174	27	110	78

2021 Cases by Week of Event



	WNV
APACHE	2
COCHISE	1
COCONINO	3
GILA	5
GRAHAM	2
MARICOPA	1,478
MOHAVE	2
PIMA	101
PINAL	125
SANTA CRUZ	1
YAVAPAI	3
YUMA	1
Total	1,724

Six SLE cases have been reported in 2021, four in Maricopa County and two in Pima County. The number of SLE cases reported are at the 5 year-to-date median Jan-December (6 cases).

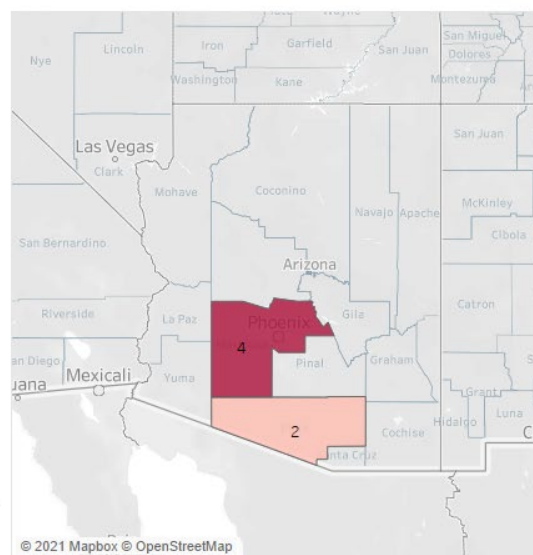
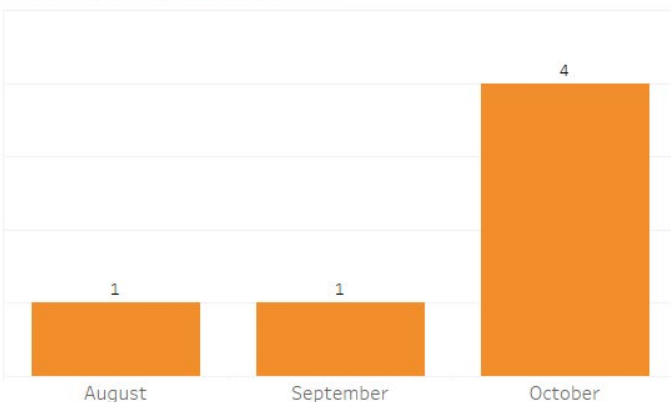
2021 Cases

	SLE
CONFIRMED	2
PROBABLE	4
Grand Total	6

Historical year-to-date cases

	2020	2019	2017
SLE	6	9	6
Total	6	9	6

2021 Cases by Week of Event



	SLE
MARICOPA	4
PIMA	2
Total	6