



ArboAZ: Arizona Mosquito Activity Report

January 1 - December 31, 2019

There are over 40 species of mosquitoes in Arizona, but only some mosquitoes spread disease. Understanding the distribution of mosquito species within the state and the location of positive mosquito pools is crucial to implementing appropriate control efforts.

This report provides information on year-to-date **mosquito surveillance** in Arizona, as reported by county, tribal, and local vector control partners, in addition to human cases of mosquito-borne diseases, as identified by public health surveillance. Information is provided on **chikungunya**, **dengue**, **St. Louis encephalitis**, **West Nile**, and **Zika**.

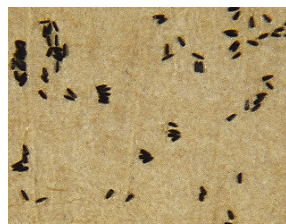
Data is reported by the number of **mosquito surveillance** traps (unique location and dates on which mosquito surveillance occurred) and by mosquito pools/egg locations. When adult mosquitoes are collected from a surveillance trap, they are divided by species, with one pool counted per species.

For example, if one trap collects ten mosquitoes, with three *Aedes vexans* and seven *Culex quinquefasciatus*, this would be reported as one trap but two **mosquito pools**. If eggs are identified at an oviposition trap, it is considered positive for eggs. If a trap was placed, but collected no mosquitoes or eggs, it would be reported as a surveillance trap but not a mosquito pool/positive egg location.

Mosquito Traps



A total of **24,115** adult mosquito traps have been set, which have collected 35,591 mosquito pools.



17,146 oviposition traps have been set to date.

Mosquito Testing



10,075 mosquito pools have been tested for at least one arbovirus.

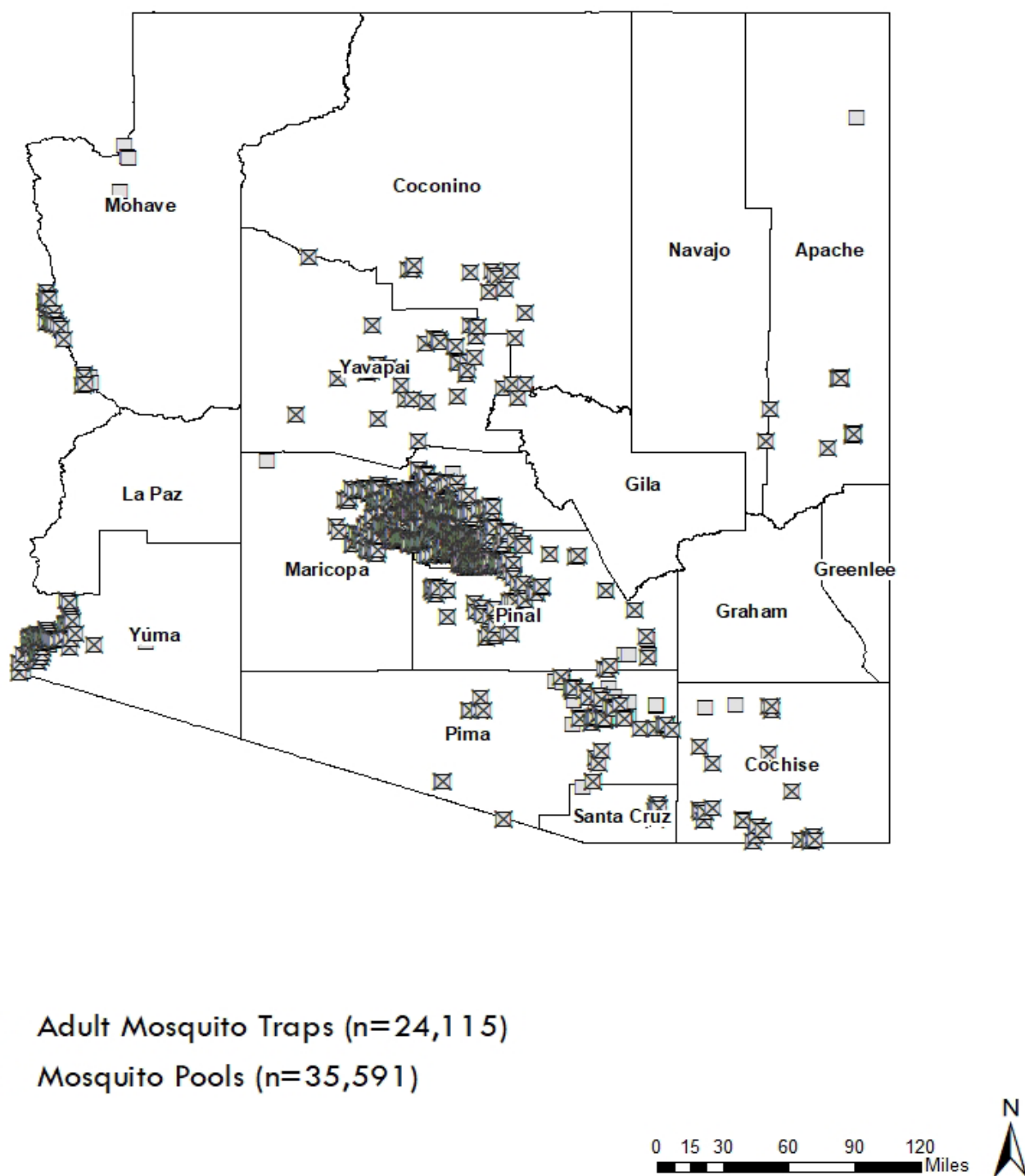
5.9% (594) of tested mosquito have been **positive**.

See the map on page 2 for locations of mosquito surveillance in Arizona.

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During 2019, over 24,115 mosquito traps have been set in Arizona, and over 35,591 **mosquito pools** have been collected.



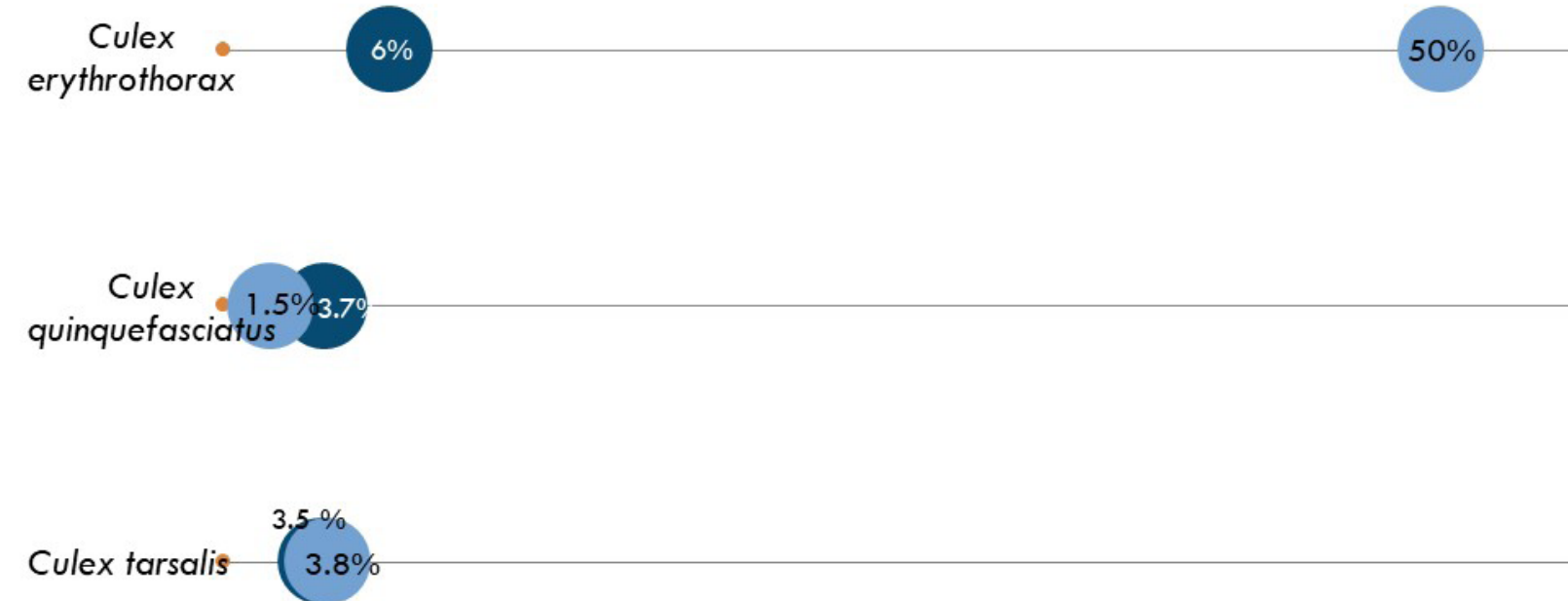
* Traps set in the same location at different times are displayed only once in the map.

Note: trap locations are mapped by GPS coordinates provided by the submitting agency. Not all trap locations may have sufficient data for mapping.

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Mosquito pools are as likely to be positive for **West Nile virus (WNV)** as for **St. Louis encephalitis virus (SLE)**. WNV-infection is most common among *Culex quinquefasciatus*



West Nile Virus (WNV)-positive mosquito pools are seen in Cochise, Coconino, Maricopa, Mohave, Pima, Pinal and Yuma counties.											
	Jan	Feb	Mar	Apr	May	June	July	August	Sep	Oct	Total
Apache	0	0	0	0	0	0	0	0	0	0	0
Cochise	0	0	0	0	0	0	0	1	0	0	1
Coconino	0	0	0	0	0	0	0	4	1	0	5
Gila	0	0	0	0	0	0	0	0	0	0	0
Graham	0	0	0	0	0	0	0	0	0	0	0
Greenlee	0	0	0	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	0	0	0	0	0	0	0
Maricopa	0	0	1	8	101	123	30	29	0	0	292
Mohave	0	0	0	0	0	2	0	0	0	0	2
Navajo	0	0	0	0	0	0	0	0	0	0	0
Pima	0	0	0	0	0	0	0	2	0	0	2
Pinal	0	0	0	0	0	14	25	0	0	0	39
Santa Cruz	0	0	0	0	0	0	0	0	0	0	0
Yavapai	0	0	0	0	0	0	0	0	0	0	0
Yuma	0	0	0	0	0	5	16	7	5	0	33
TOTAL	0	0	1	8	101	144	71	43	6	0	374

* Maricopa County Vector Control final 2019 data is higher (417 WNV pools) than what reported to ADHS and can be found here: <https://www.maricopa.gov/2476/Mosquito-Borne-Disease-Statistics>.

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St. Louis encephalitis virus (SLE)-positive mosquito pools have been reported from Maricopa and Yuma counties.

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Total
Apache	0	0	0	0	0	0	0	0	0	0	0
Cochise	0	0	0	0	0	0	0	0	0	0	0
Coconino	0	0	0	0	0	0	0	0	0	0	0
Gila	0	0	0	0	0	0	0	0	0	0	0
Graham	0	0	0	0	0	0	0	0	0	0	0
Greenlee	0	0	0	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	0	0	0	0	0	0	0
Maricopa	0	0	1	6	46	49	15	10	4	3	134
Mohave	0	0	0	0	0	0	0	0	0	0	0
Navajo	0	0	0	0	0	0	0	0	0	0	0
Pima	0	0	0	0	0	0	0	0	0	0	0
Pinal	0	0	0	0	0	0	0	0	0	0	0
Santa Cruz	0	0	0	0	0	0	0	0	0	0	0
Yavapai	0	0	0	0	0	0	0	0	0	0	0
Yuma	0	0	0	0	8	47	29	2	0	0	86
TOTAL	0	0	1	6	54	96	44	12	4	3	220

* Maricopa County Vector Control final 2019 data is higher (213 SLE pools) than what reported to ADHS and can be found here: <https://www.maricopa.gov/2476/Mosquito-Borne-Disease-Statistics>.

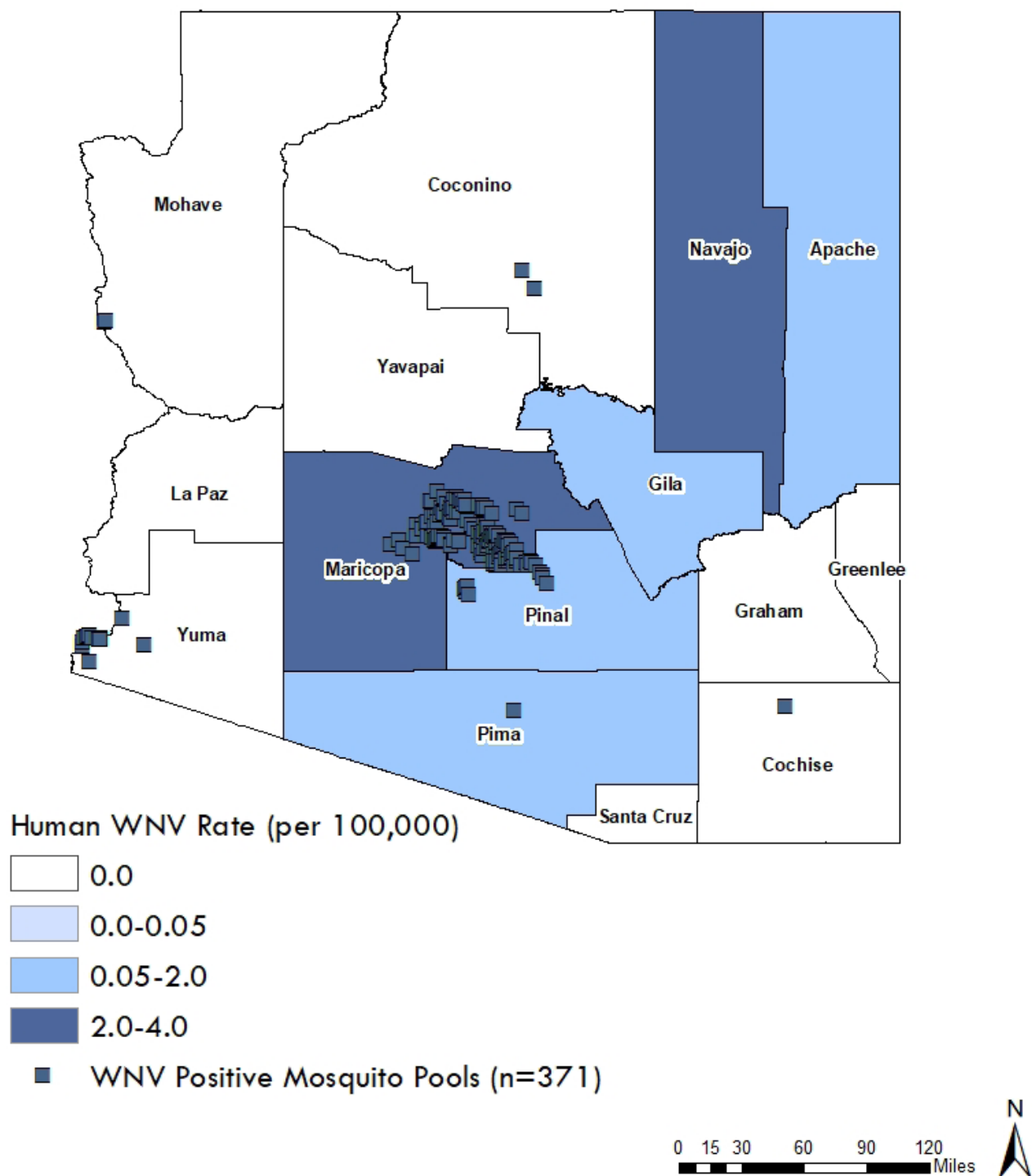
Aedes aegypti mosquito pools were identified in Apache, Cochise, Coconino, , Maricopa, Pima, Pinal, Yavapai and Yuma counties during 2019.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Apache	0	0	0	0	0	0	0	0	1	0	1
Cochise	0	0	0	0	0	0	12	33	59	22	126
Coconino	0	0	0	0	0	4	0	2	0	0	6
Gila	0	0	0	0	0	0	0	0	0	0	0
Graham	0	0	0	0	0	0	0	0	0	0	0
Greenlee	0	0	0	0	0	0	0	0	0	0	0
La Paz	0	0	0	0	0	0	0	0	0	0	0
Maricopa	30	14	61	260	774	888	686	623	665	940	4,941
Mohave	0	0	0	0	0	0	0	0	0	0	0
Navajo	0	0	0	0	0	0	0	0	0	0	0
Pima	0	0	0	1	5	6	10	27	24	1	74
Pinal	0	0	0	2	15	25	17	9	14	0	82
Santa Cruz	0	0	0	0	0	0	0	0	0	0	0
Yavapai	0	0	0	0	0	1	1	3	3	0	8
Yuma	0	0	0	1	2	13	9	2	0	0	27
TOTAL	30	14	61	264	796	937	735	699	766	963	5,265

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In 2019, 371 **mosquito pools** have tested **positive for West Nile Virus**. A total of 174 human WNV cases have been reported in Arizona, of which 155 in Maricopa, 10 in Pima, 4 in Navajo, 3 in Pinal, 1 in Gila and 1 in Apache counties.

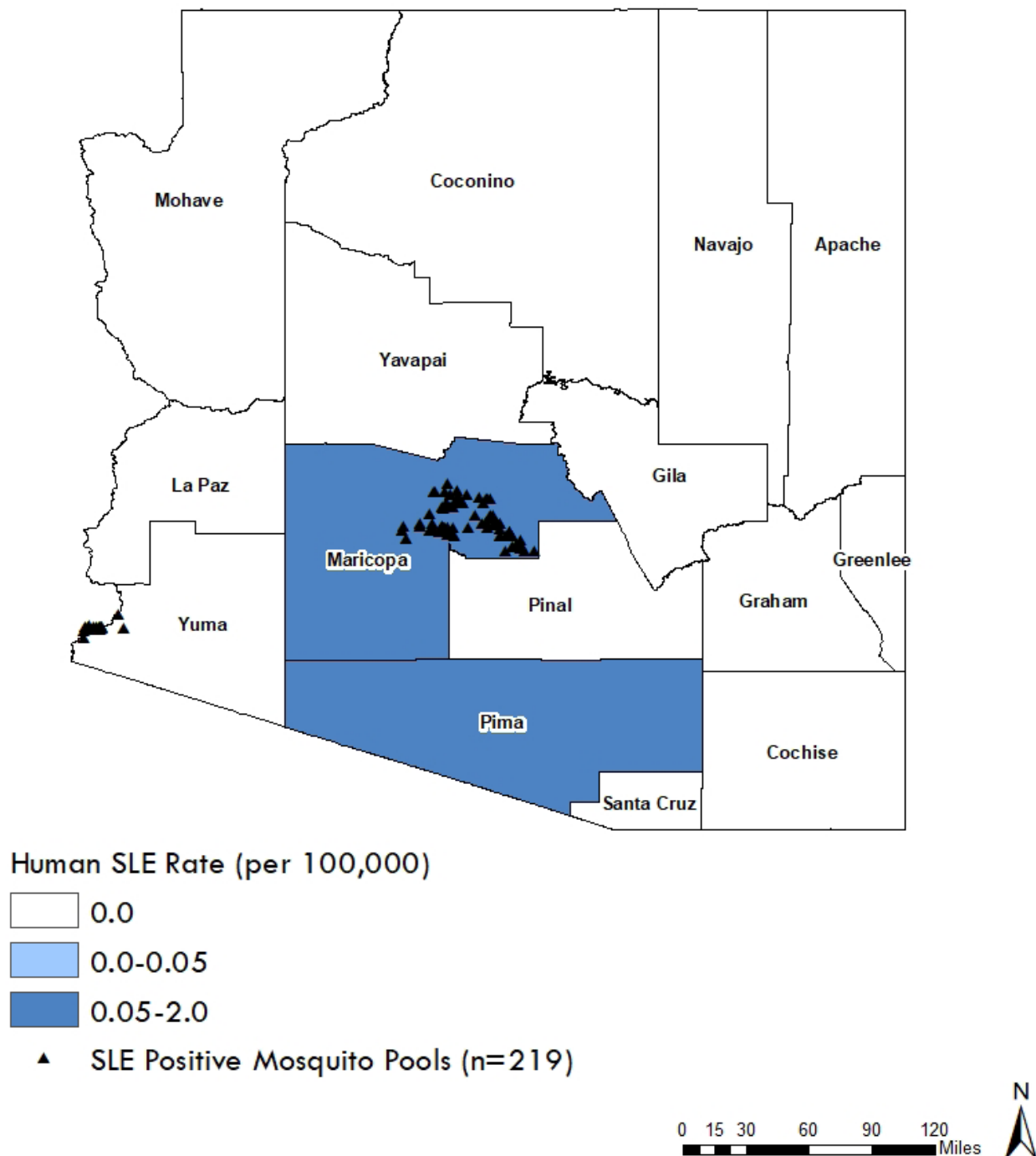


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219 **mosquito pools** in Maricopa and Yuma counties have tested **positive for St. Louis encephalitis virus** in 2019. Nine **human cases** have been reported year-to-date, 8 in Maricopa and 1 in Pima counties.



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***Aedes aegypti* mosquito pools were identified in Apache, Cochise, Coconino, , Maricopa, Pima, Pinal, Yavapai and Yuma counties during 2019.**

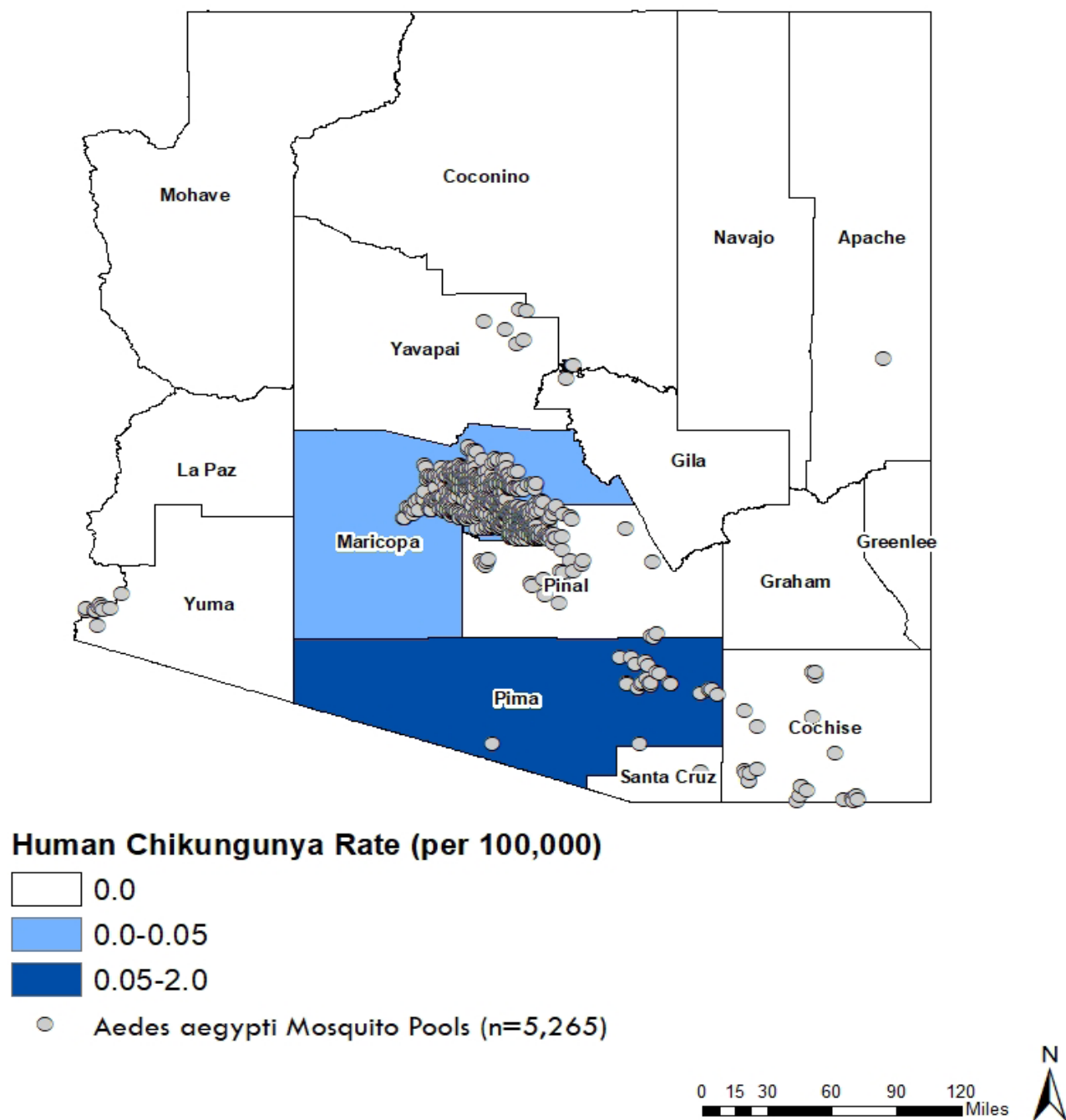
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Apache	0	0	0	0	0	0	0	0	1	0	1
Cochise	0	0	0	0	0	0	12	33	59	22	126
Coconino	0	0	0	0	0	4	0	2	0	0	6
Gila	0	0	0	0	0	0	0	0	0	0	0
Graham	0	0	0	0	0	0	0	0	0	0	0
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Mohave	0	0	0	0	0	0	0	0	0	0	0
Navajo	0	0	0	0	0	0	0	0	0	0	0
Pima	0	0	0	1	5	6	10	27	24	1	74
Pinal	0	0	0	2	15	25	17	9	14	0	82
Santa Cruz	0	0	0	0	0	0	0	0	0	0	0
Yavapai	0	0	0	0	0	1	1	3	3	0	8
Yuma	0	0	0	1	2	13	9	2	0	0	27
TOTAL	30	14	61	264	796	937	735	699	766	963	5,265

0 mosquito pool shave tested positive for chikungunya, dengue or Zika virus.

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In 2019, *Aedes aegypti* mosquito pools have been reported from Apache, Cochise, Coconino, Maricopa, Pima, Pinal and Yuma counties. Three travel-associated human cases of chikungunya has been reported, 2 in Pima and 1 in Maricopa counties. No Zika cases have been reported in Arizona in 2019.

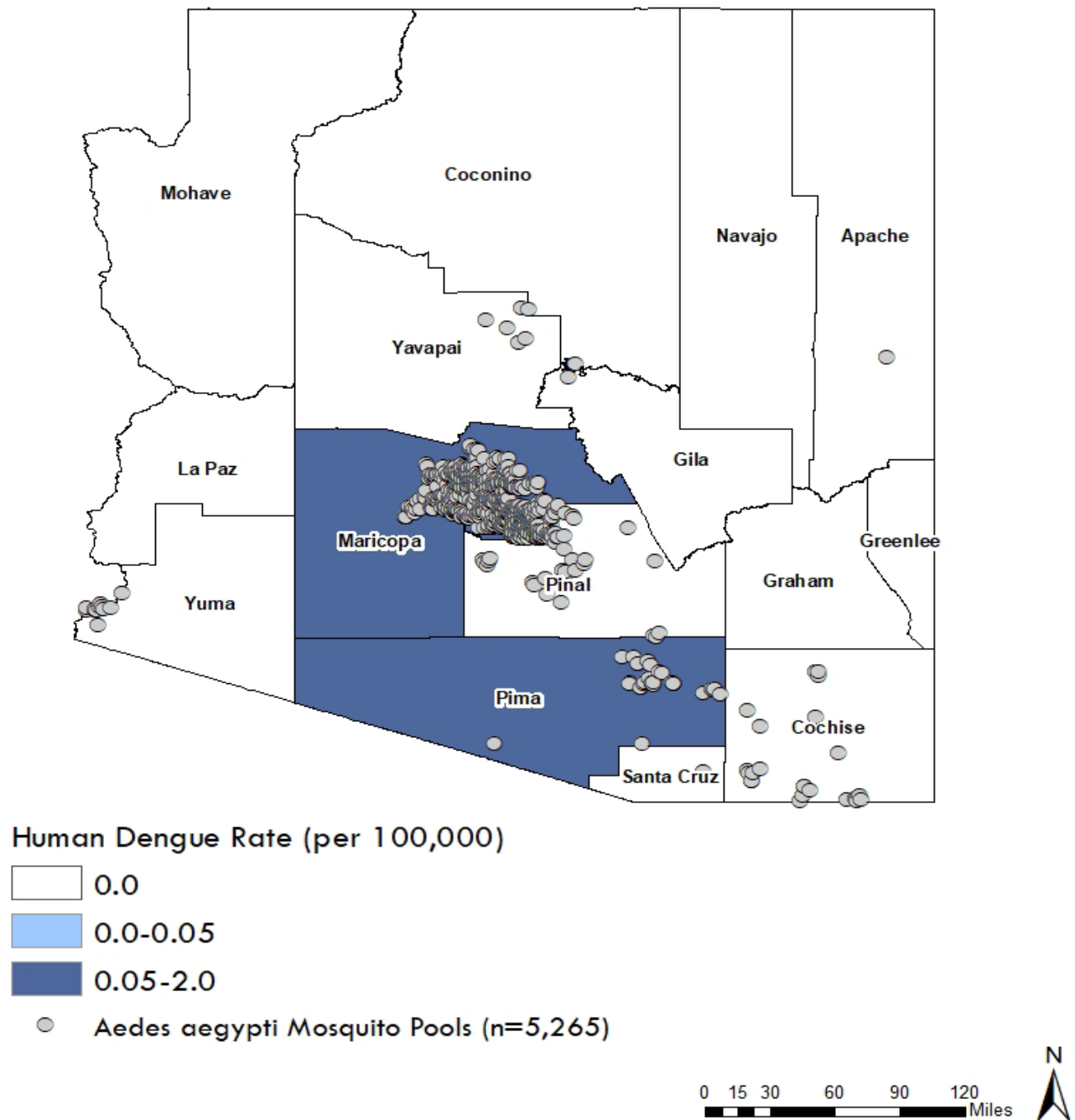


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In 2019, *Aedes aegypti* mosquito pools have been reported from Apache, Cochise, Coconino, Maricopa, Pima, Pinal and Yuma counties. Eighteen travel-associated human cases of dengue have been reported, 13 in Maricopa and 5 in Pima counties.



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