

Arbovirus Surveillance Summary 2022-2023

April 2023

Summary

- No cases of **Ross River virus** or **Barmah Forest virus** infection in SESLHD residents were reported in April 2023
- Six confirmed and one probable case of **dengue virus** infection in SESLHD residents were reported in March 2023. All infections were acquired overseas.
- No mosquito monitoring occurred in April due to extremely low numbers in the preceding months.

1. Surveillance of Ross River and Barmah Forest Virus infections

In South Eastern Sydney Local Health District (SESLHD), place of acquisition continues to be investigated for all confirmed cases, as well as for probable cases who reside in areas along the Georges River where there is potentially increased risk of local transmission of the Ross River and Barmah Forest viruses (postcodes 2210 and 2234).

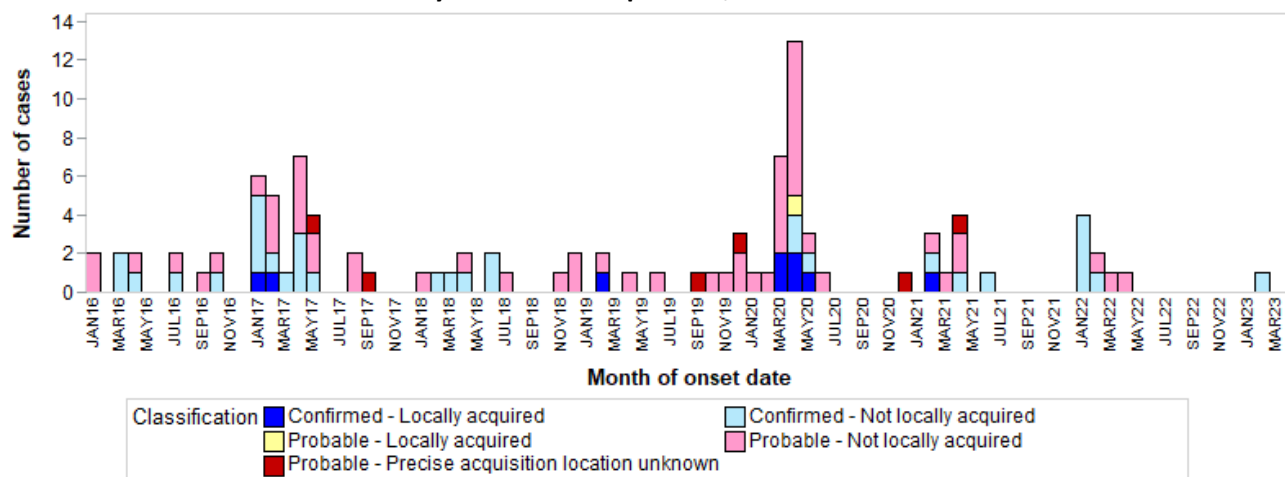
a. April 2023

- No cases of **Ross River virus** or **Barmah Forest virus** infection in SESLHD residents have been notified.

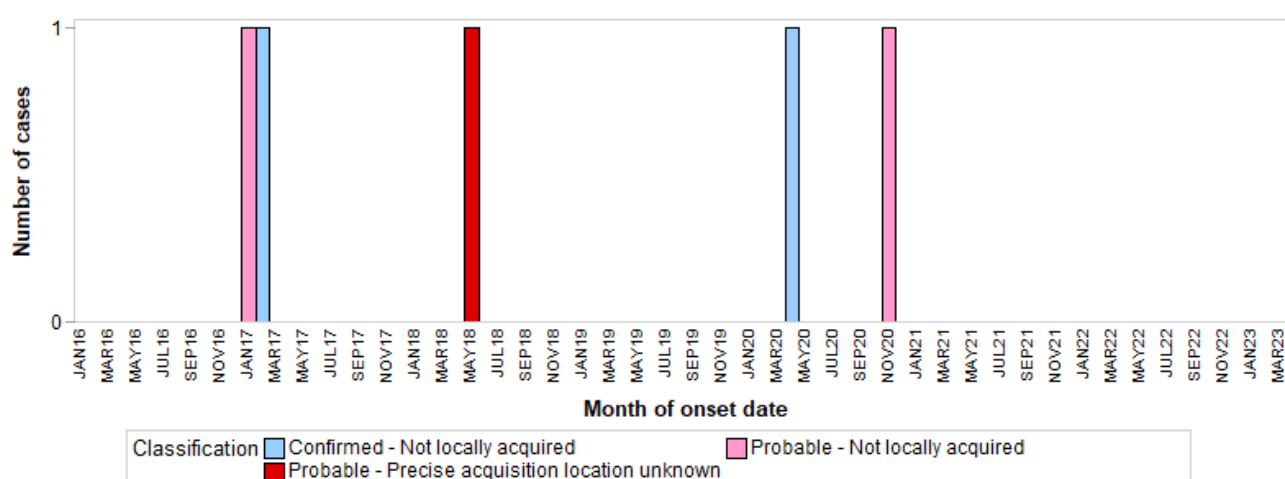
b. This season (1 October 2022 to 30 April 2023)

- One case of **Ross River virus** infection in SESLHD residents has been notified.
- No cases of **Barmah Forest virus** infection in SESLHD residents have been notified.

Confirmed and probable Ross River virus infections in South Eastern Sydney LHD residents, by location of acquisition, 2016 to date



Confirmed and probable Barmah Forest virus infections in South Eastern Sydney LHD residents, by location of acquisition, 2016 to date



2. Summary of other mosquito-borne diseases not known to be locally transmitted

Six confirmed cases and one probable case of **dengue virus** infection have been notified in SESLHD residents this month. All infections were acquired overseas in either Indonesia, Malaysia or Papua New Guinea.

On February 28 2022, NSW Health issued an alert following the detection of **Japanese encephalitis virus** in several pig farms in the west of the state. Subsequently 13 cases in humans, including two deaths, were identified. One case has been notified in NSW this season. Information about the outbreak is available [here](#). While local transmission of Japanese encephalitis is unlikely in SESLHD, the favoured mosquito vector for the virus, *Culex annulirostris* is common in the region.

In 2023, Murray Valley encephalitis (MVE) virus has been detected through routine surveillance across much of the western districts of NSW, with four cases in residents of Murrumbidgee LHD reported. Kunjin (KUN) virus has also been detected in several sites in Western NSW and Murrumbidgee LHDs, but less frequently than MVE. *Culex annulirostris* is also the favoured vector for MVE and KUN.

Confirmed and probable cases among South Eastern Sydney LHD residents, since 1 October 2022

	Acquired in SESLHD	Not known to be acquired in SESLHD		
		Acquired elsewhere in Australia	Acquired overseas	Precise acquisition location unknown
Dengue				
Confirmed	0	0	29	0
Probable	0	0	7	0
Malaria				
Confirmed	0	0	1	0
Probable	0	0	0	0
Japanese encephalitis				
Confirmed	0	0	0	0
Probable	0	0	0	0
Total	0	0	37	0

3. Mosquito surveillance in South Eastern Sydney LHD

Mosquito surveillance along the Georges River is undertaken from late November to April each year, and this year surveillance also occurred in Matraville, near Port Botany. The detection of increased mosquito numbers may signal an increased risk of arboviral infection. The predominant species of mosquito in the coastal area of the Georges River which may pose a risk to human health is *Ochlerotatus (Aedes) vigilax*, a known carrier of Ross River and Barmah Forest viruses. Three sites along the Georges River close to SESLHD residents used for mosquito surveillance include Illawong, Alford's Point and Picnic Point (in SWSLHD).

a. Georges River

No mosquito monitoring occurred in April due to extremely low numbers of mosquitos in the preceding months.

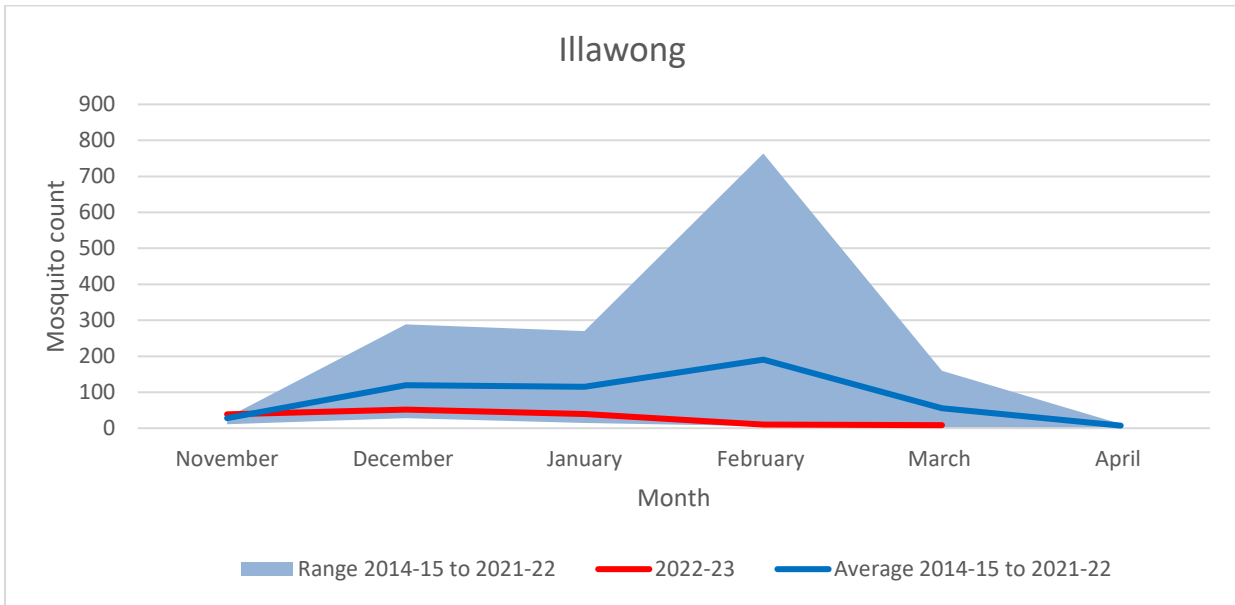


Mosquito surveillance sites on the Georges River near SESLHD residents (blue overlay highlights SESLHD region)

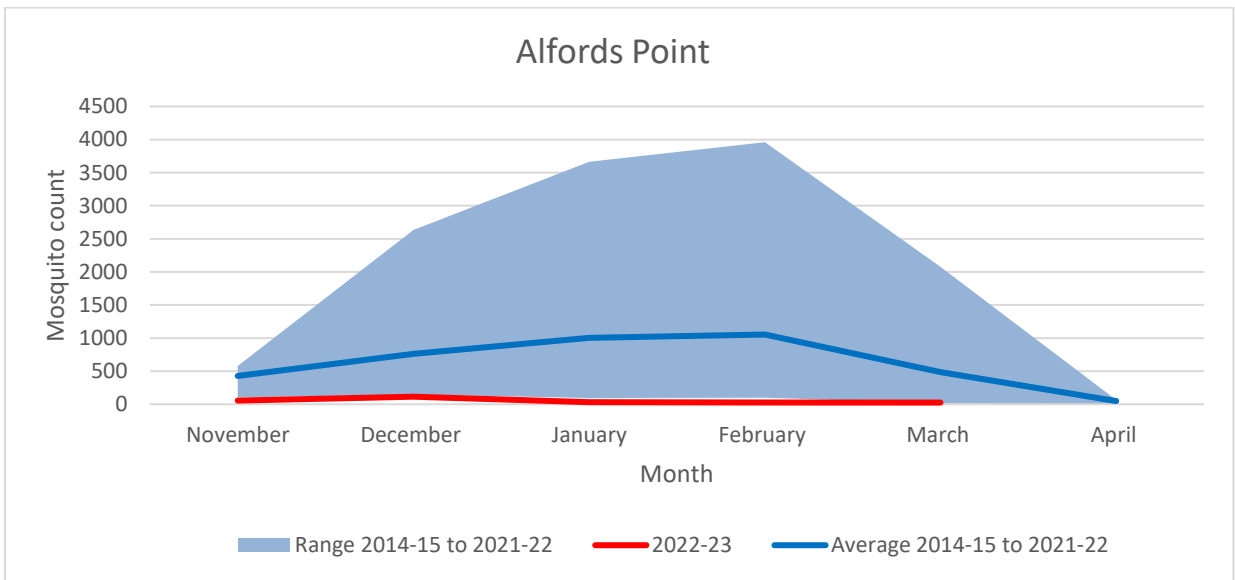
Mosquito numbers as a daily average per month, by current season and 2014 to 2022 seasons

Site	Season	Average mosquito count					
		November	December	January	February	March	April
Illawong	This season	39	52	40	10	9	N/A
	All previous seasons*	(18 – 37)	(11 – 272)	(28 – 283)	(15 – 772)	(6 – 165)	(1 – 13)
Alford's Point	This season	57	115	33	27	26	N/A
	All previous seasons*	(192 – 664)	(105 – 2589)	(147 – 3718)	(93 – 3954)	(99 – 2165)	(14 – 78)
Picnic Point (SWSLHD)	This season	20	11	9	6	14	N/A
	All previous seasons*	(5 – 1157)	(24 – 3006)	(26 – 5639)	(108 – 6672)	(60 – 2624)	(7 – 139)

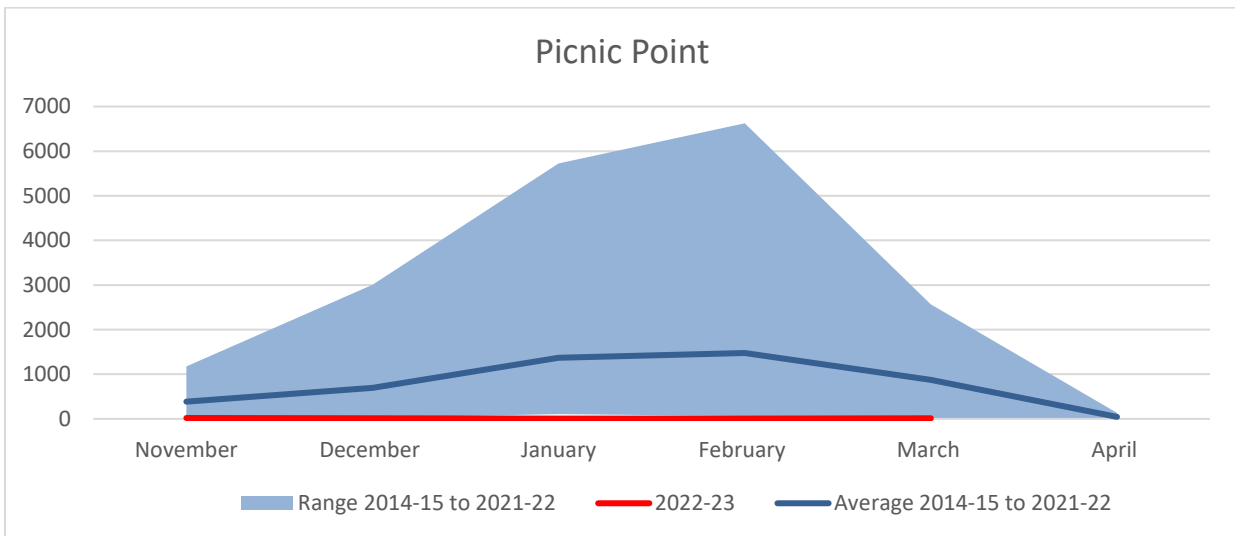
*2014-15 to 2021-22 range
N/A – Not available



Illawong – average monthly mosquito count, seasons 2014-15 to 2021-22 and 2022-23



Alfords Point – average monthly mosquito count, seasons 2014-15 to 2021-22 and 2022-23



Picnic Point – average monthly mosquito count, seasons 2014-15 to 2021-22 and 2022-23

b. Matraville

This season a new trapping site in Matraville near Port Botany has been established. Its purpose is to determine a baseline for the types and abundance of mosquitoes in this part of the District.



Mosquito surveillance site in Matraville

Mosquito numbers as a daily average per month at Matraville

Average mosquito count					
November	December	January	February	March	April
82	46	18	75	62	N/A
N/A – Not available					