

Arbovirus Surveillance Summary 2020-2021

April 2021

Summary

- One probable case of **Ross River virus** infection in a SESLHD resident was reported this month.
- No cases of **Barmah Forest virus** infection in a SESLHD resident were reported this month.
- Mosquito numbers were on average above that usually seen in April.

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 those 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 2234 and 2210).

a. This month

- One probable case of **Ross River virus** infection in a SESLHD resident has been notified. Location of acquisition is North Queensland.
- No cases **Barmah Forest virus** infection in a SESLHD resident have been notified.
- Two possible cases of Ross River virus infection remain under investigation.

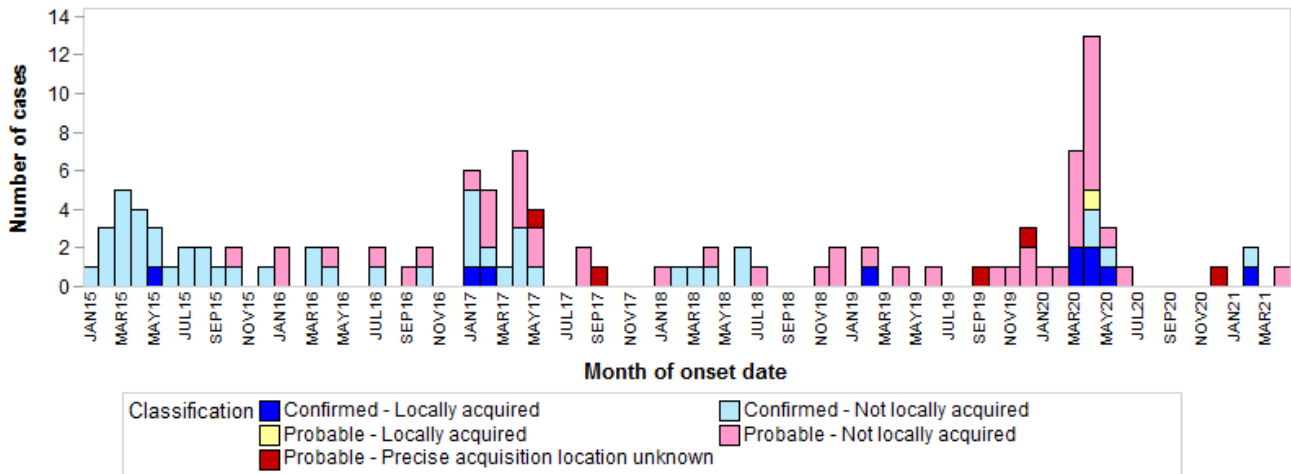
b. This season (1 October 2020 to 31 May 2021)

- Two confirmed cases of **Ross River virus** infection SESLHD residents have been notified. Location of acquisition is the Georges River area of Sydney and mid north coast of NSW.
- Three probable cases of **Ross River virus** infection SESLHD residents have been notified. Location of acquisition is unknown for two and North Queensland for the other case.
- One probable case of **Barmah Forest virus** infection has been notified. Location of acquisition is northern NSW.

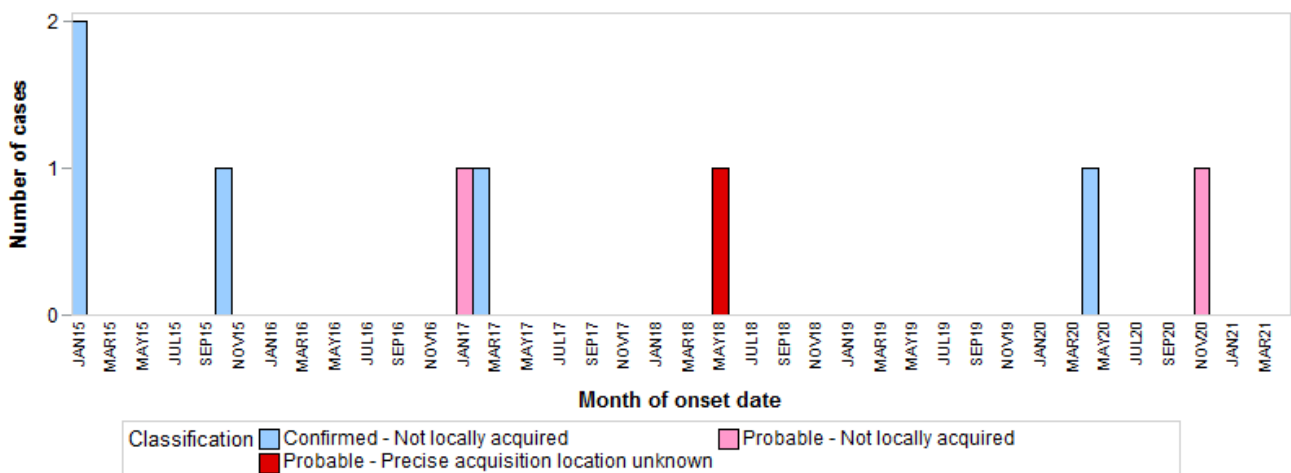
Confirmed and probable cases among South Eastern Sydney LHD residents, since 1 October 2020

	Acquired in SESLHD	Not known to be acquired in SESLHD		
		Acquired elsewhere in Australia	Acquired overseas	Precise acquisition location unknown
Ross River virus				
Confirmed	1	1	0	0
Probable	0	1	0	2
Barmah Forest virus				
Confirmed	0	0	0	0
Probable	0	1	0	0
Total	1	3	0	2

Confirmed and probable Ross River virus infections in South Eastern Sydney LHD residents, by location of acquisition, 2015 to date



Confirmed and probable Barmah Forest virus infections in South Eastern Sydney LHD residents, by location of acquisition, 2015 to date



2. Summary of other arboviruses not known to be locally transmitted

No cases of other arbovirus infection with onset since 1 October 2020 (current season) have been notified in local residents.

3. Mosquito surveillance in the Georges River region

Mosquito surveillance along the Georges River is undertaken from late November to April each year. 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 close to SESLHD residents used for mosquito surveillance include Illawong, Alford's Point and Picnic Point (in SWSLHD).

- Average mosquito numbers in April 2021 are high when compared to average April numbers from the previous six seasons.
- There were no very high individual mosquito counts in April 2021.

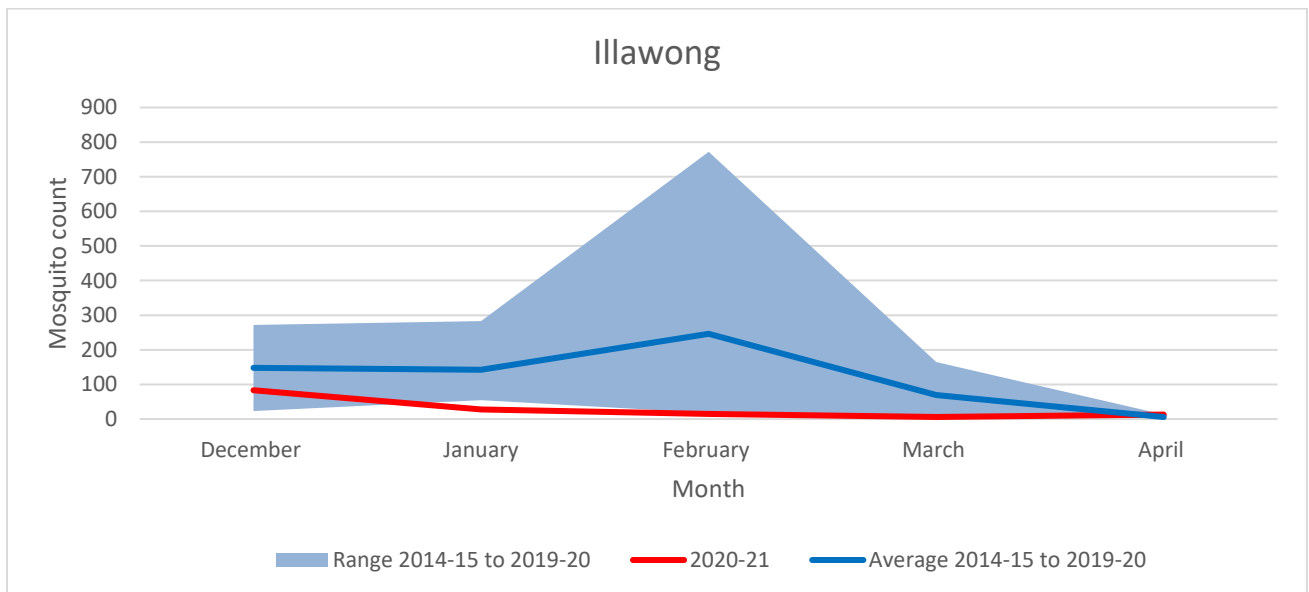


Mosquito surveillance sites on the Georges River near SESLHD residents (blue overlay highlights SESLHD region)

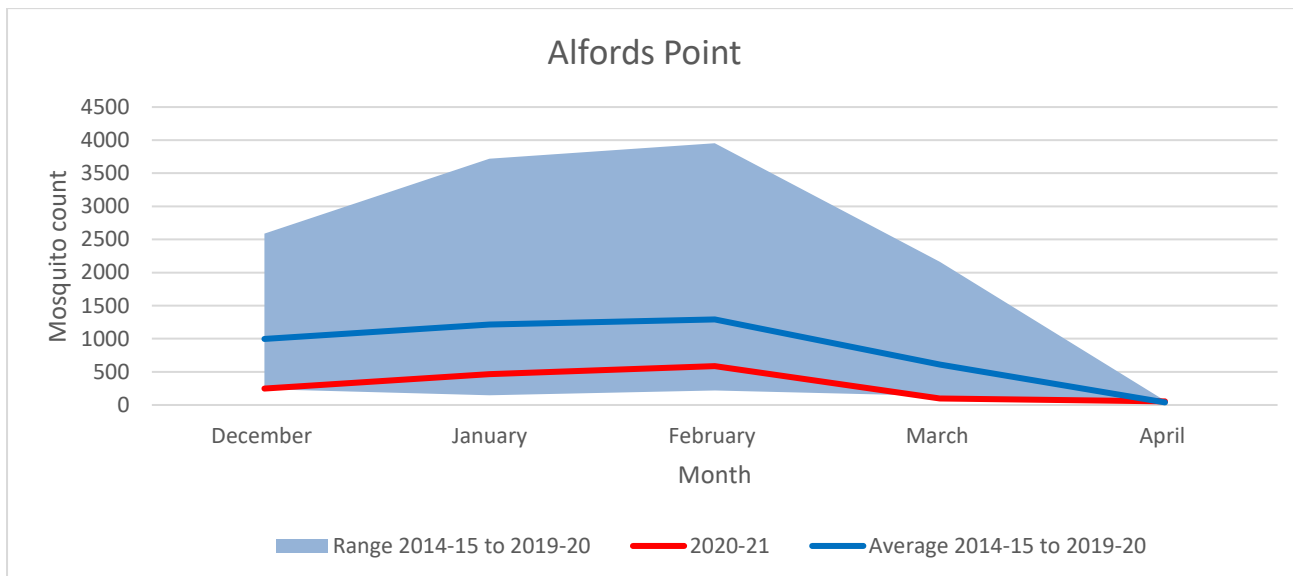
Mosquito numbers as a daily average per month, by current season and 2014 to 2020 seasons

Site	Season	Average mosquito count				
		December	January	February	March	April
Illawong	This season	70	28	15	6	13
	All previous seasons*	(24 – 272)	(55 – 283)	(18 – 772)	(8 – 165)	(1 – 13)
Alfords Point	This season	333	468	587	99	54
	All previous seasons*	(238 – 2589)	(147 – 3718)	(219 – 3954)	(138 – 2165)	(14 – 66)
Picnic Point (SWSLHD)	This season	474	442	253	346	139
	All previous seasons*	(41 – 3006)	(26 – 5639)	(108 – 6672)	(60 – 2624)	(7 – 24)

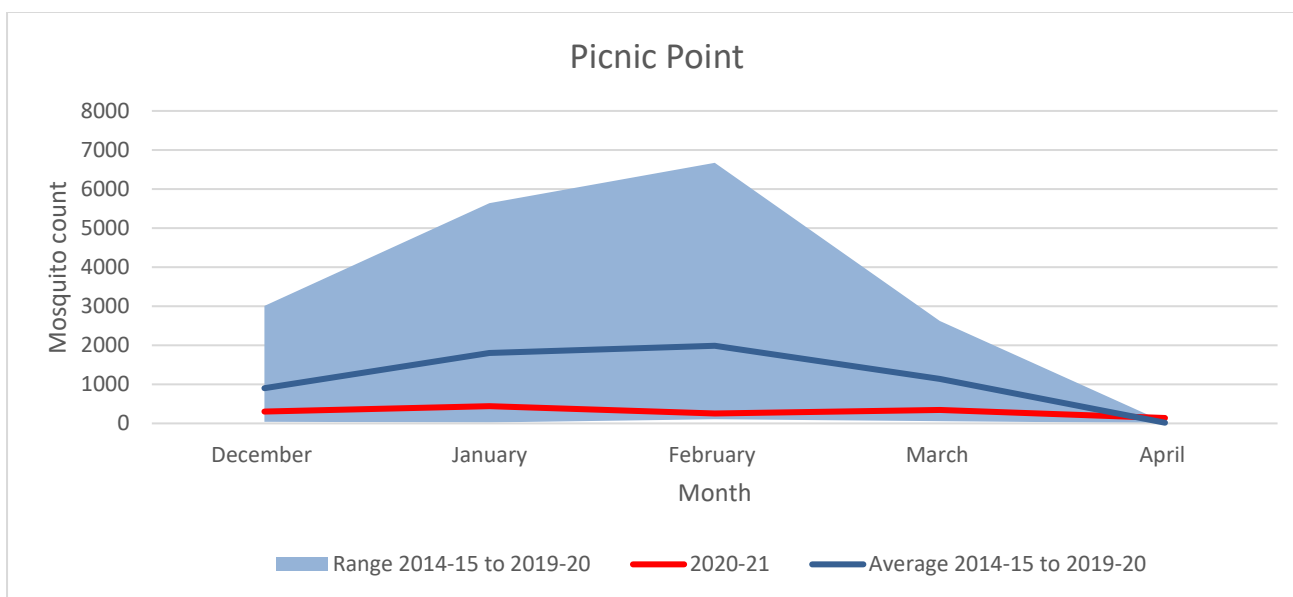
*2014-15 to 2019-20 range



Illawong – average monthly mosquito count, seasons 2014-15 to 2019-20 and 2020-21



Alfords Point – average monthly mosquito count, seasons 2014-15 to 2019-20 and 2020-21



Picnic Point – average monthly mosquito count, seasons 2014-15 to 2019-20 and 2020-21