

The South Australian arbovirus and mosquito monitoring report

Current hierarchy of response level 2 **MEDIUM**

The South Australian (SA) arbovirus and mosquito monitoring report summarises the most recent available data to inform the current level of risk of mosquito-borne disease in SA. This data determines the appropriate graded response in accordance with the [South Australian Arbovirus and Mosquito Monitoring and Control Plan](#) (the Plan) hierarchy of responses (HoR). The HoR is dependent upon on-going data and trends identified by surveillance activities, weather forecasting and disease notifications.

On 8 January 2025, SA Health raised the mosquito-borne disease threat level to 2 (medium) in South Australia. This was due to recent interstate flavivirus detections.

The broad areas of flood plain associated with the River Murray provide breeding opportunities for *Culex annulirostris*, the main vector mosquito associated with Murray Valley encephalitis virus (MVEV) and Japanese encephalitis virus (JEV). The most current River Murray flow report is available on the WaterConnect website [here](#).

Meteorological data

April rainfall totals were below average across the central and south-eastern regions of the state and above average across the northern and western regions of the state. South Australia's area averaged rainfall was 8.6mm, 47% below the 1961 to 1990 average.

South Australia's mean maximum temperature for April was above average for the southern and central regions and below average in the state's north-east. The area averaged mean maximum temperature in South Australia was 28.3°C, 1.71°C above the 1961-1990 average.

South Australia's mean minimum temperature for April was above average for most of the state. The area-averaged mean minimum temperature in South Australia was 14.2°C, 1.56°C above the 1961-1990 average.

Sea Surface Temperature SST monitoring continues to show warmer than average waters around the Australian coastline and up to 3°C above average in Australia's south-west. Global SSTs remain above average with each month of 2025 being the second warmest on record, only slightly cooler than 2024.

El Niño – Southern Oscillation (ENSO) remains neutral with the Bureau predicting neutral ENSO conditions until at least September 2025.

Indian Ocean Dipole (IOD) is also neutral with latest values tending slightly positive however positive values will need to be sustained before a positive event can be established.

The Southern Annular Mode (SAM) is neutral and is set to return to a positive phase moving further into May 2025. This is likely to result in weaker than normal westerly winds and higher pressures over southern Australia leading to fewer winter rain events.

Source: Australian Government, [Bureau of Meteorology](#)

Northern Adelaide mosquito surveillance program

The 2024-25 northern Adelaide mosquito surveillance is conducted weekly at six locations in the Torrens Island and Globe Derby Park areas. April mean trap abundance was greater at five of the six locations when compared to the previous season. Mean abundance was less at three locations and greater at three locations compared to the 2022-23 season. See table 1.



Table 1: Northern Adelaide mosquito surveillance program trapping mean trap abundance data April 2025 three-year comparison.

Trap location	2023	2024	2025
Globe Derby Park Racetrack	55	0	14
Daniel Avenue Wetland	90	38	44
Swan Alley	949	467	1014
TI Quarantine Station	681	596	246
TI Power Station	98	55	159
Mawson Lakes	20	11	49

Local council mosquito surveillance

In response to the season risk level, River Murray councils continued to set between four and six adult mosquito traps fortnightly in their local area. Several non-River Murray councils continued to participate in the SA mosquito surveillance subsidy program, with these councils setting between four and six adult mosquito traps in their local area monthly.

All council traps containing >10 mosquitoes were submitted to the Agriculture Victoria laboratory to be processed according to trap location, counted, identified to species level, then screened for JEV, MVEV, Ross River virus (RRV), Barmah Forest virus (BFV) and West Nile virus/Kunjin (WNV/KUN). Traps containing <10 mosquito traps were not routinely submitted to Agriculture Victoria for processing.

Table 2 details the mean April trap abundance data in SA from local council traps for three seasons (where available). Mean abundance was greater in eight out of the ten council areas compared to the previous season.

Table 2: Local council mosquito surveillance trapping mean abundance data April 2025 three-year comparison.

Council	2023	2024	2025
Adelaide Plains Council	4	63	48
Alexandrina Council	7	11	17
Berri Barmera Council	6	19	23
Coorong District Council	14	1	15
District Council of Loxton Waikerie	15	24	23
Mid Murray Council	11	9	57
Rural City of Murray Bridge	34	4	12
Renmark Paringa Council	8	14	15
City of Port Adelaide Enfield	-	19	38
City of Salisbury	37	13	26

- Indicates no trap data.

Table 3 details the mean April trap abundance data for *Culex annulirostris* from local council mosquito traps for three seasons (where applicable). The data shows greater mean *Culex annulirostris* abundance in six council areas compared to the previous season. The Mid Murray Council, had an increase of *Cx. annulirostris* in April 2025.

Table 3: *Culex annulirostris* mean trap abundance data by local council area April 2025 three-year comparison.

Council	2023	2024	2025
Adelaide Plains Council	0	0	0.2
Alexandrina Council	0	0.25	0
Berri Barmera Council	0.17	1	2.86
Coorong District Council	0	0	0
District Council of Loxton Waikerie	0.64	0.14	1.86
Mid Murray Council	0	0	13.4
Rural City of Murray Bridge	1	0	0.33
Renmark Paringa Council	0.17	0.56	1.29
City of Port Adelaide Enfield	-	0	0
City of Salisbury	0	0	0

- Indicates no trap data.

Arbovirus isolations from trapped mosquitos (whole trap grinds)

As detailed in table 4, there were no arbovirus detections from qPCR testing of trapped mosquitos during April 2025.

Table 4: Arbovirus isolations from whole trap grinds April 2025.

Arbovirus	JEV	MVEV	RRV	BFV	WNV/KUN
Detections	0	0	0	0	0

South Australian sentinel surveillance program

Seven sentinel chicken flocks established in high-risk locations along the river are bled throughout the mosquito season. The blood is tested for JEV, MVEV and WNV/KUN antibodies, which if present indicates that the chicken has been infected by a mosquito carrying one of these viruses. The final sentinel chicken blood samples for the 2024/25 season were collected on the 8th and 9th of April 2025. No arbovirus was detected in any sentinel chickens in April 2025.

Arbovirus notification data

All confirmed and probable arbovirus infections detected in humans in SA are notifiable under the *South Australian Public Health Act 2011*. The two most common locally acquired arbovirus infections notified in SA are infections with RRV and BFV. Figure 1 details arbovirus notification data 2019-2025 by month.

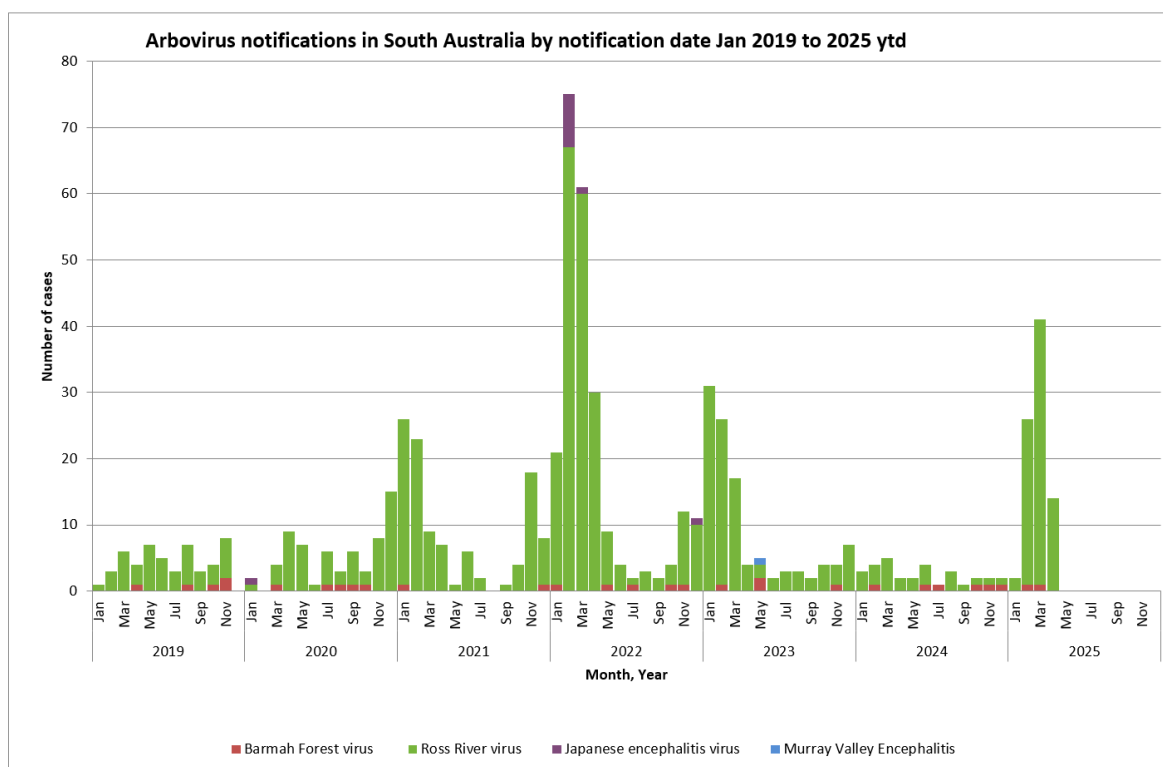


Figure 1: Arbovirus in South Australia by notification month – 01 January 2019 to 31 April 2025.

Source: Communicable Disease Control Branch, SA Health.

Further information

For further information regarding mosquito borne disease see the SA Health website [here](#).

For mosquito management resources and information for environmental health officers see the SA Health website [here](#).

For more information

Health Protection Programs
Health Protection and Regulation
Department for Health and Wellbeing
PO Box 6
RUNDLE MALL SA 5000
Email: HealthProtectionPrograms@sa.gov.au
Telephone: 08 8226 7100
www.sahealth.sa.gov.au



<https://creativecommons.org/licenses>

