## NSW Arbovirus Surveillance and Mosquito Monitoring 2024-2025

Environmental Health Branch, Health Protection NSW



Weekly Update: Week ending 9 November 2024



Bottom left - Common banded mosquito, *Culex annulirostris* Top and bottom right - Saltmarsh mosquito, *Aedes vigilax* (Copyright 2020)

Weekly reports are available on Mosquito-borne disease surveillance.

## Please send questions or comments about this report to:

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SPHN (EH) 241091

## Summary

## **Arbovirus Detections**

## **Mosquito Isolates**

• There have been no arbovirus detections in mosquito samples.

## **Mosquito Abundance**

## Inland

- LOW: Albury, Cootamundra, Grong Grong, Leeton, Moree, Murrumbidgee, Wagga Wagga, West Wyalong.
- MEDIUM: Wilcannia.

## **Environmental Conditions**

## Climate

- In the week ending 9 November 2024, rainfall was average along the north coast of NSW and lower than average elsewhere.
- In the coming week, 15 November to 21 November 2024, average or higher than average rainfall is expected across NSW.
- Minimum and maximum temperatures are expected to be lower than average across NSW.
- Tides: High tides over 1.8 metres are predicted for 16-19 November 2024 and 13-18 January 2025 which could trigger hatching of *Aedes vigilax*.

## **Human Arboviral Disease Notifications**

## **Ross River Virus**

Two probable cases were notified in the week ending 9 November 2024.

## **Barmah Forest Virus**

No cases were notified in the week ending 9 November 2024.

## **Arbovirus Detections**

This section details detections of Murray Valley encephalitis virus, Japanese encephalitis virus, Kunjin virus, Ross River virus and Barmah Forest virus in the NSW Arbovirus Surveillance and Mosquito Monitoring Program.

## **Mosquito isolates**

Whole grinds of collected mosquitoes are tested for arbovirus nucleic acids to determine the presence of arboviruses in mosquitoes. Test results for detections of Murray Valley encephalitis virus, Japanese encephalitis virus, Kunjin virus, Ross River virus and Barmah Forest virus for the past week are shown in the maps below. Detections of all arboviruses (including Edge Hill virus and Kokobera virus) for the season are detailed in the positive test results for the 2024-2025 surveillance season.

## Test results for mosquito trapping sites reported in the week ending 9 November 2024

In the week ending 9 November 2024, there were no arbovirus detections in mosquitoes.

## Inland sites

The map highlights detections of arboviruses that can cause human notifiable conditions, such as Murray Valley encephalitis virus, Japanese encephalitis virus, Kunjin virus, Ross River virus, and Barmah Forest virus. Detections of all arboviruses (including Edge Hill virus, Stratford virus and Kokobera virus) for the season are detailed in the positive test results for the 2024-2025 surveillance season.



## There have been no arbovirus detections in inland or coastal sites during the 2024-2025 surveillance season.

## Mosquito abundance

This section details counts of mosquitoes in the NSW Arbovirus Surveillance and Mosquito Monitoring Program. Each location represents the count average for all trapping sites at that location for the most recent week that collections were provided prior to preparation of this report.

*Culex annulirostris* and *Aedes vigilax* are vectors of interest for Ross River virus and Barmah Forest virus, *Culex annulirostris* is also a vector for Japanese encephalitis virus.

## Mosquito counts

Mosquito counts (average per trap per location) for mosquito trapping sites reported in the week ending 9 November 2024

#### **Inland sites**

Total mosquito counts



# Mosquito abundance results for the 2024-2025 season

This section shows all mosquito trapping results by location and species type to date for the current arbovirus season.

## Cumulative mosquito abundance tables



## Human arboviral disease notifications

Under the NSW Public Health Act 2010, human arboviral infections are notifiable in NSW.

**Recent notifications of Ross River virus and Barmah Forest virus infections in humans** (by date of case report received)

Notifications of Ross River virus and Barmah Forest virus infections, by month of disease onset (the earlier of patient-reported onset or specimen collection date), are available online at the NSW Health website - infectious diseases data.

The following figures show notifications for the current NSW Arbovirus Surveillance and Mosquito Monitoring season (2024-2025), and the same period in the previous four years.

## **Ross River virus**



Ross River virus notifications in NSW by month since 2019 (November - April)



## **Barmah Forest virus**



Note: Presented human cases include both confirmed and probable cases.

Date