

NSW Arbovirus Surveillance and Mosquito Monitoring 2024-2025

Environmental Health Branch, Health Protection NSW

Weekly Update: Week ending 3 May 2025



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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Testing and scientific services are provided by the Department of Medical Entomology, NSW Health Pathology, Institute of Clinical Pathology and Medical Research (ICPMR) for mosquito surveillance, and the Arbovirus Emerging Diseases Unit, NSW Health Pathology (ICPMR) for sentinel chicken surveillance.

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SPHN (EH) 241091

Summary

Arbovirus Detections

Sentinel Chickens

- There were no arbovirus detections in sentinel chickens for the week ending 3 May 2025.

Mosquito Isolates

- In the week ending 3 May 2025, Ross River virus was detected in mosquitoes trapped in Kempsey, and Barmah Forest Virus was detected in mosquitoes from Moree.

Mosquito Abundance

Inland

- **Low:** Albury, Cootamundra, Deniliquin, Leeton, Lockhart, Murrumbidgee, Wagga Wagga
- **High:** Moree

Coastal

- **Low:** Batemans Bay, Bega, Coffs Harbour, Murwillumbah, Newcastle, Wauchope, Wyong
- **Medium:** Byron Bay, Lake Cathie, Port Macquarie
- **High:** Ballina, Gosford, Tweed
- **Very high:** Kempsey

Sydney

- **Low:** Blacktown, Canada Bay, Cumberland, Hawkesbury, Liverpool, Parramatta, Penrith
- **High:** Bankstown, Sydney Olympic Park

Environmental Conditions

Climate

- In the week ending 3 May 2025, rainfall was higher than average along the NSW coastline and northern regions of Far West NSW. Rainfall and average or below average in other parts of NSW.
- In the coming week, 9 May to 15 May 2025, rainfall across NSW is expected to be lower than average.
- Minimum temperatures are expected to be higher than average in Hunter New England and along the NSW coastline, and average or lower than average elsewhere. Maximum temperatures are expected to be higher than average across NSW.

Tides

- High tides over 1.8 metres are predicted for 12 May 2025 to 15 May 2025 and 24 May 2025 to 31 May 2025 which could trigger hatching of *Aedes vigilax*.

Human Arboviral Disease Notifications

Ross River Virus

Three confirmed and seventeen probable cases were notified in the week ending 3 May 2025.

Barmah Forest Virus

No cases were notified in the week ending 3 May 2025.

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.

Sentinel chickens

Chickens are bled for detection of antibodies directed against Murray Valley encephalitis virus, Japanese encephalitis virus and Kunjin virus, indicating exposure to these viruses. Test results for the past week are shown in the map below. A positive test result indicates one or more chickens in a flock tested positive for the **first time** to antibodies directed against a particular virus, indicating newly acquired infection.

Sentinel chicken antibody test results for samples collected in the week ending 3 May 2025

In the week ending 3 May 2025, there were no arbovirus detections in chickens.

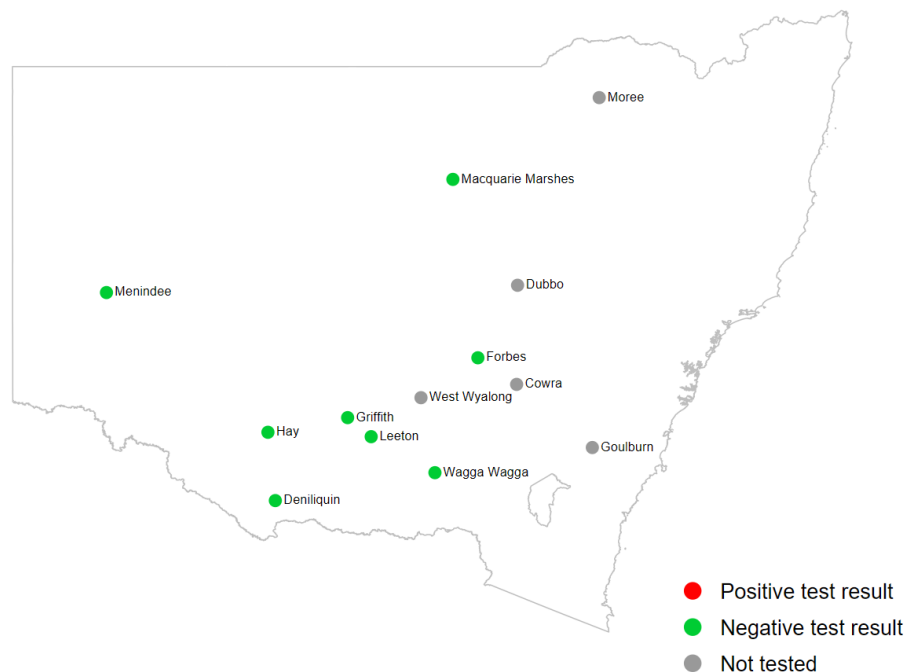


Table 1: Positive test results in the 2024-2025 surveillance season.

| Date of sample collection | Location | Virus |
|---------------------------|--------------|----------------------------|
| 2024-12-05 | Cowra | Murray Valley encephalitis |
| 2024-12-18 | West Wyalong | Murray Valley encephalitis |

Inland and coastal sites - positive test results in the 2024-2025 surveillance season.

| Date of sample collection | Location | Virus |
|----------------------------------|-----------------|---------------|
| 2025-01-28 | Wagga Wagga | Ross River |
| 2025-02-18 | Newcastle | Barmah Forest |
| 2025-02-18 | Wyong | Stratford |
| 2025-03-17 | Lake Cathie | Stratford |
| 2025-03-25 | Batemans Bay | Barmah Forest |
| 2025-03-25 | Griffith | Barmah Forest |
| 2025-03-31 | Kempsey | Ross River |
| 2025-04-07 | Newcastle | Ross River |
| 2025-04-21 | Moree | Edge Hill |
| 2025-04-22 | Coffs Harbour | Ross River |
| 2025-04-27 | Moree | Barmah Forest |
| 2025-04-28 | Kempsey | Ross River |

Sydney 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.



Sydney sites - positive test results in the 2024-2025 surveillance season.

| Date of sample collection | Location | Virus |
|---------------------------|---------------------|---------------|
| 2025-01-29 | Georges River | Stratford |
| 2025-02-10 | Georges River | Stratford |
| 2025-03-11 | Northern Beaches | Stratford |
| 2025-03-18 | Parramatta | Barmah Forest |
| 2025-03-18 | Northern Beaches | Barmah Forest |
| 2025-03-19 | Sydney Olympic Park | Stratford |
| 2025-03-25 | Georges River | Barmah Forest |
| 2025-03-25 | Penrith | Barmah Forest |
| 2025-04-03 | Cumberland | Stratford |

Sydney sites - positive test results in the 2024-2025 surveillance season.

| Date of sample collection | Location | Virus |
|----------------------------------|------------------|--------------|
| 2025-04-08 | Northern Beaches | Stratford |
| 2025-04-15 | Northern Beaches | Stratford |
| 2025-04-23 | Earlwood | Stratford |

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.

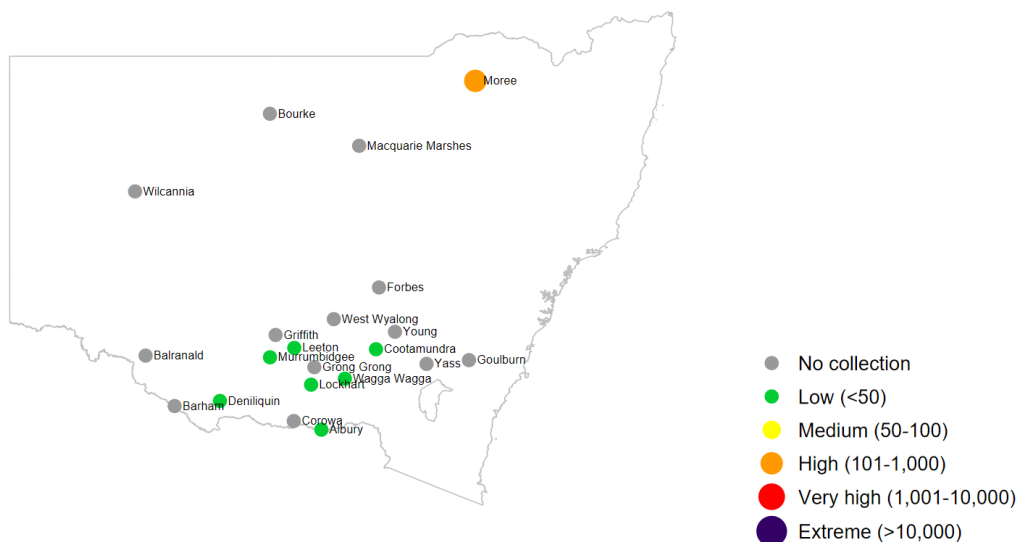
Culex annulirostris and *Aedes vigilax* are vectors of interest for Ross River virus and Barmah Forest virus, *Culex annulirostris* is also a vector for Japanese encephalitis virus.

Mosquito counts

Mosquito counts (average per trap per location) for mosquito trapping sites reported in the week ending 3 May 2025

Inland sites

Total mosquito counts

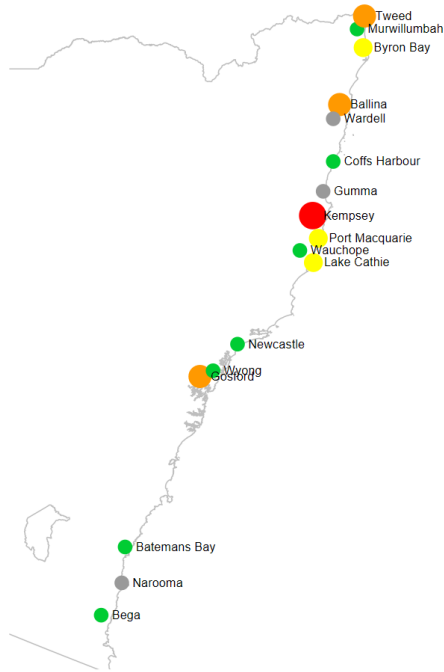


Culex annulirostris counts



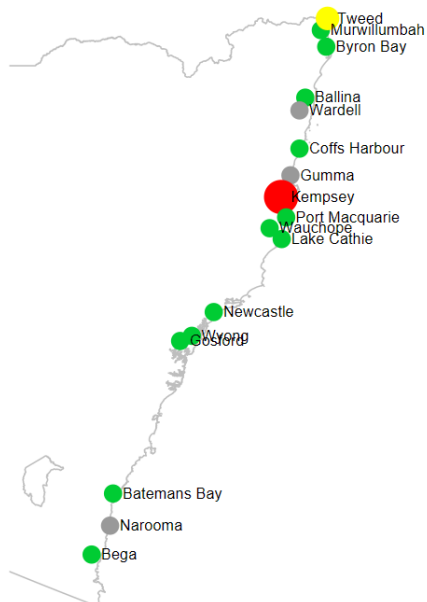
Coastal sites

Total mosquito counts

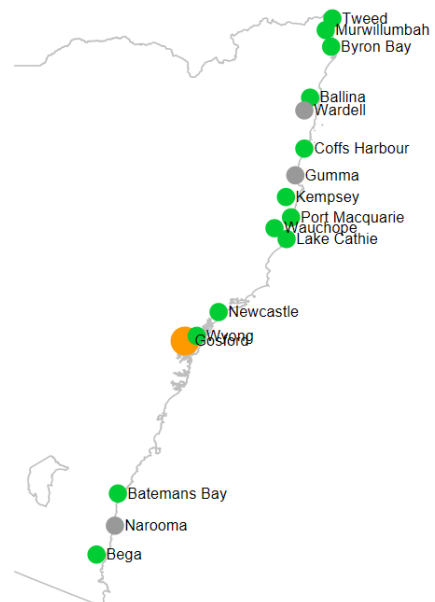


- No collection
- Low (<50)
- Medium (50-100)
- High (101-1,000)
- Very high (1,001-10,000)
- Extreme (>10,000)

Culex annulirostris counts



Aedes vigilax counts

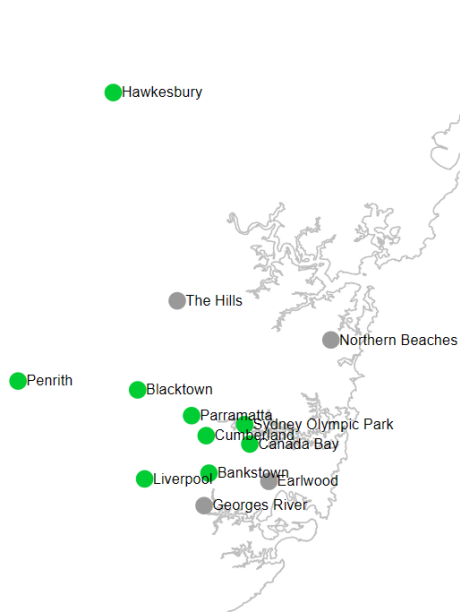


Sydney sites

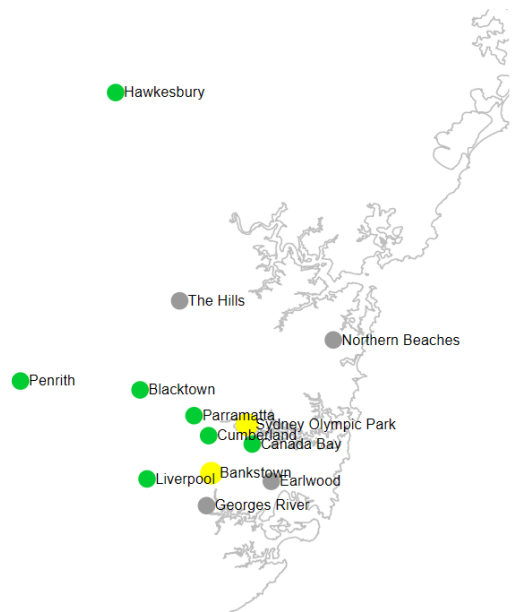
Total mosquito counts



Culex annulirostris counts



Aedes vigilax counts



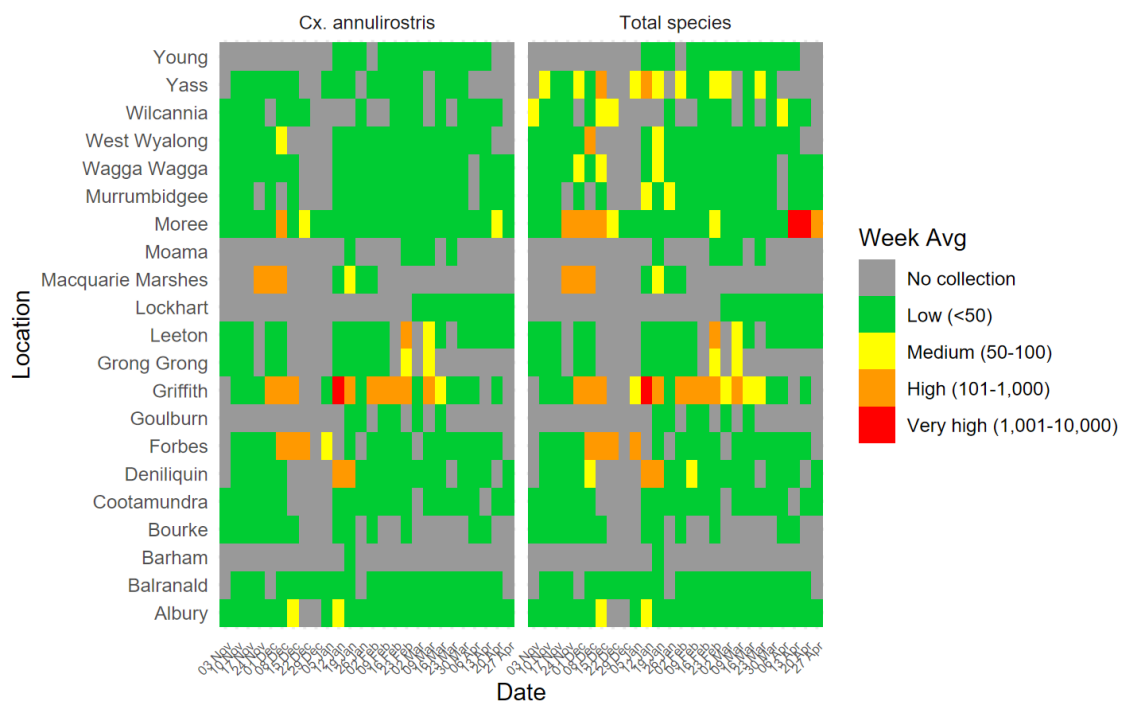
Mosquito abundance results for the 2024-2025 season

season

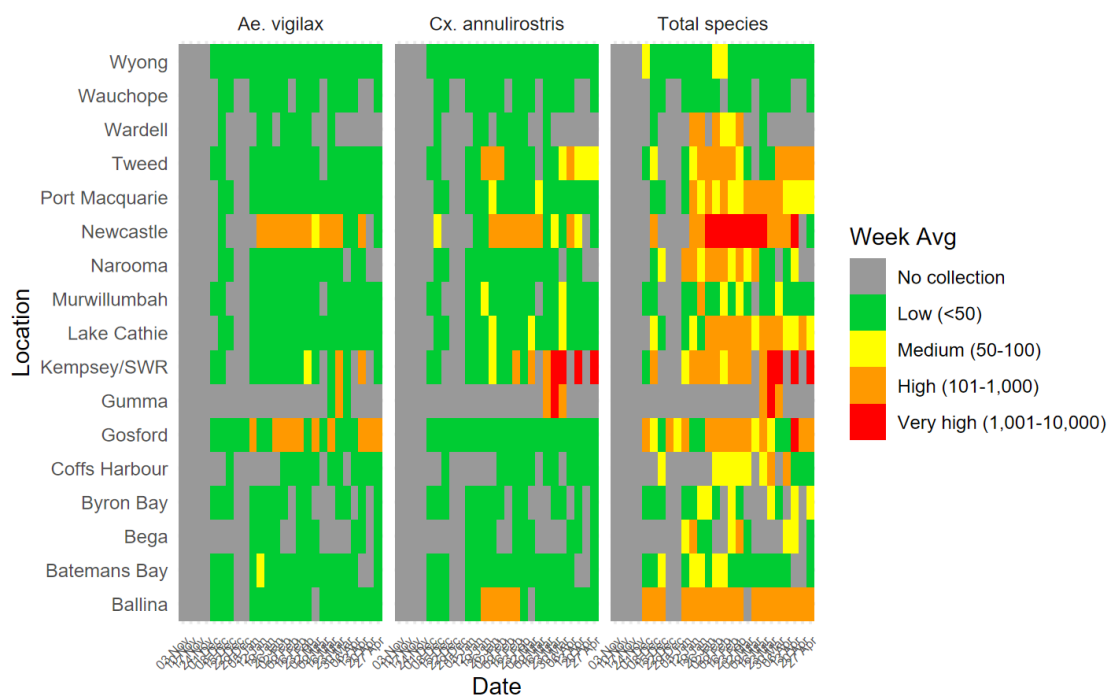
This section shows all mosquito trapping results by location and species type to date for the current arbovirus season.

Cumulative mosquito abundance tables

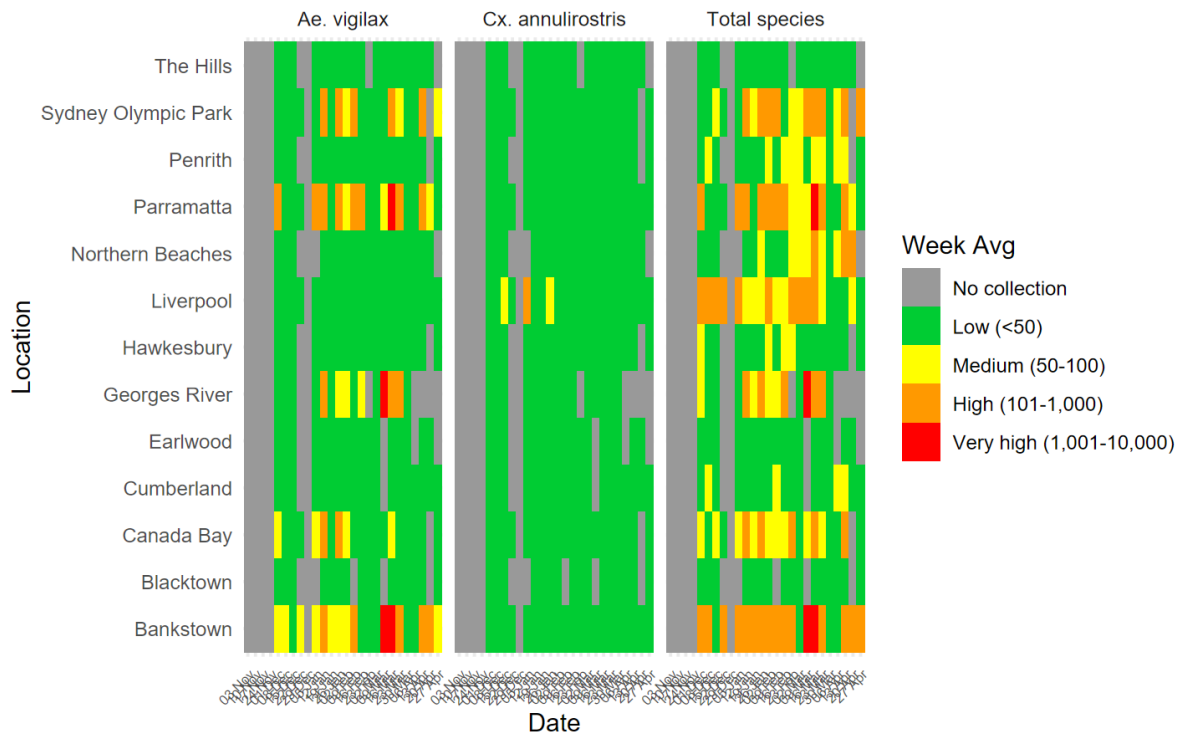
Number of mosquitoes trapped inland (weekly average)



Number of mosquitoes trapped along the coast (weekly average)



Number of mosquitoes trapped in Sydney (weekly average)



Human arboviral disease notifications

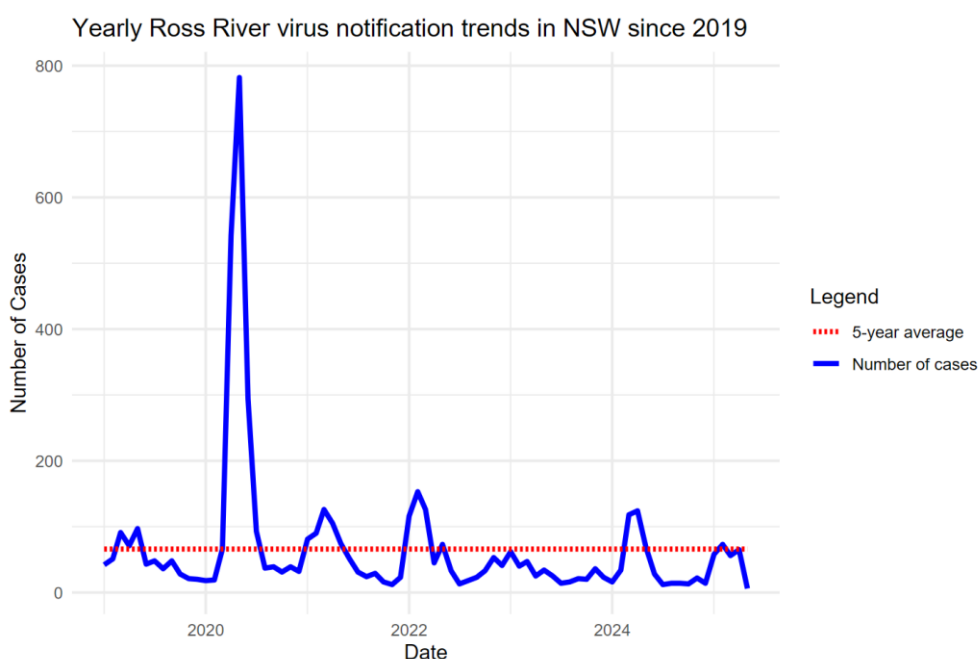
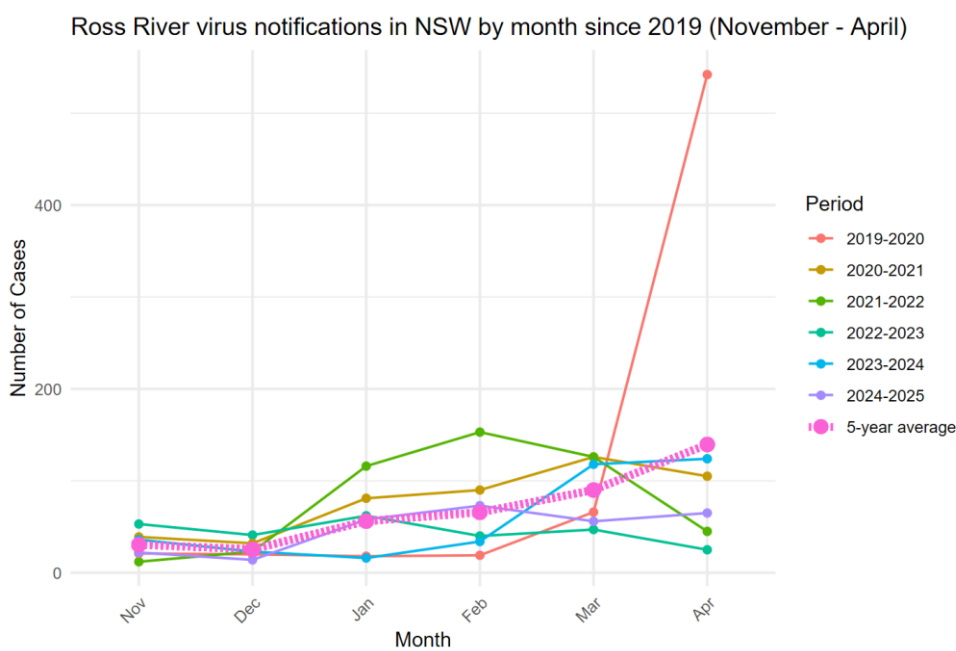
Under the *NSW Public Health Act 2010*, human arboviral infections are notifiable in NSW.

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

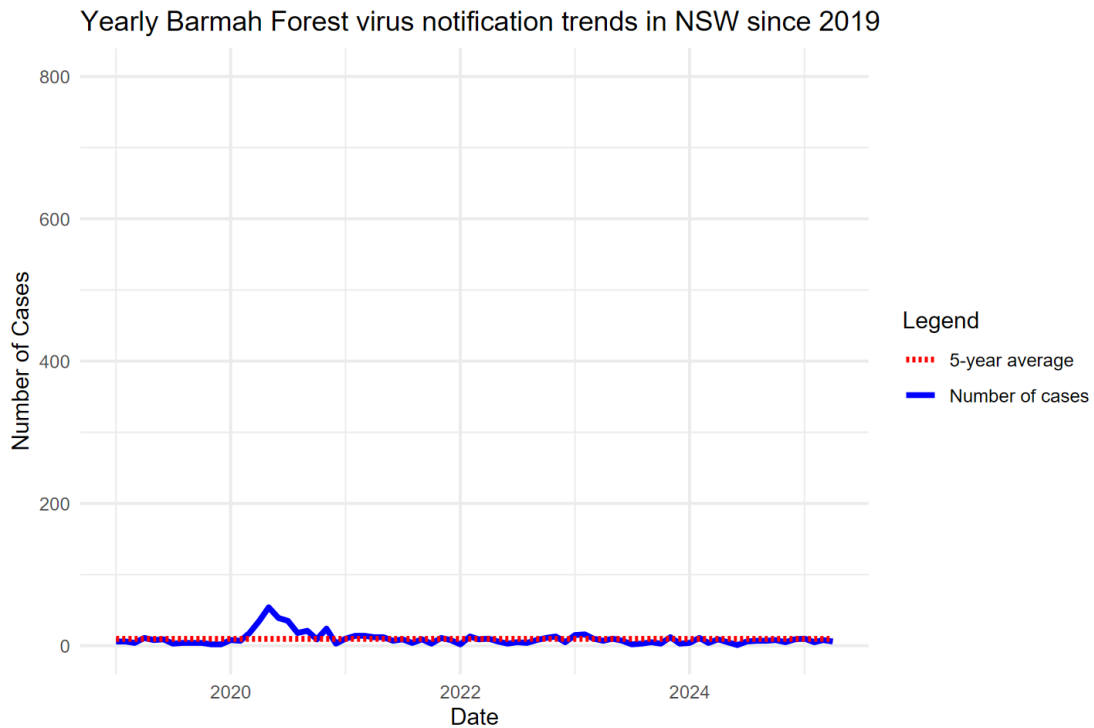
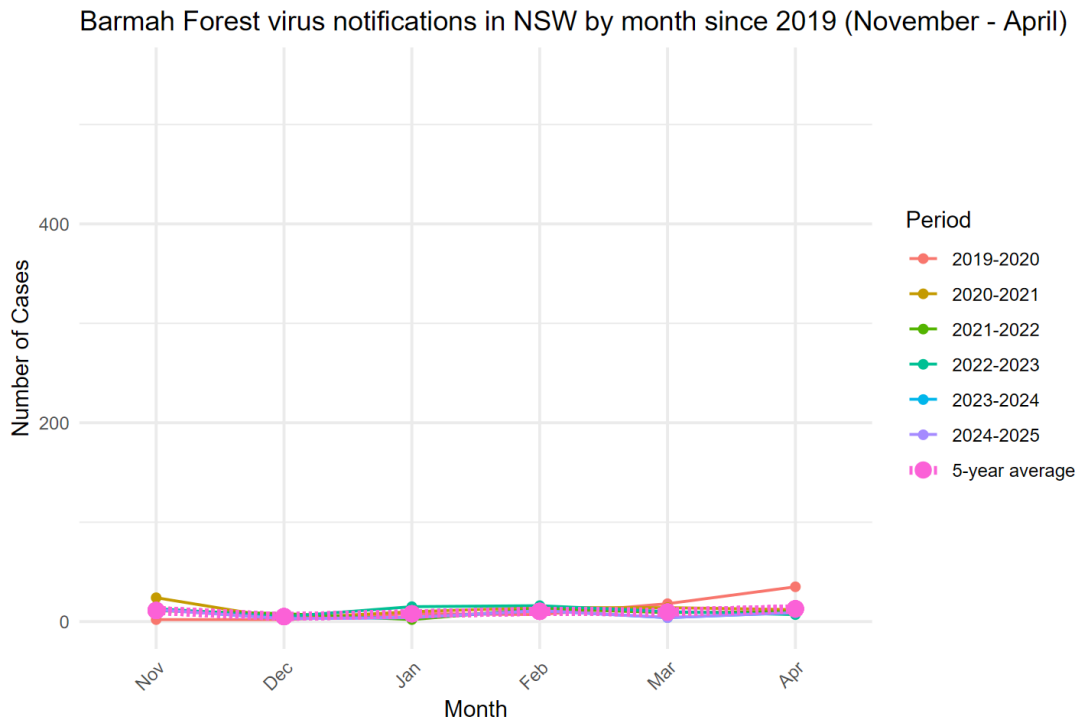
Notifications of Ross River virus and Barmah Forest virus infections, by month of disease onset (the earlier of patient-reported onset or specimen collection date), are available online at the [NSW Health website - infectious diseases data](#).

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



Barmah Forest virus



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