

# NSW Arbovirus Surveillance & Mosquito Monitoring 2020-2021

Weekly Update: Week ending 27 March 2021

(Report Number 20)



# Summary

## Arbovirus Detections

- **Sentinel Chickens:** There were no arbovirus detections in sentinel chickens.
- **Mosquito Isolates:** There were no Barmah Forest and Ross River virus detections in mosquito isolates in this reporting period.

## Mosquito Abundance

- **Inland:** HIGH at Griffith. LOW at Albury and Leeton.
- **Coast:** HIGH at Ballina and Gosford. LOW at Wyong.
- **Sydney:** HIGH at Bankstown, Parramatta and Sydney Olympic Park. LOW at Blacktown, Canada Bay, Georges River and Liverpool.

## Environmental Conditions

- **Climate:** In the past week there was heavy rainfall in coastal NSW. There was moderate to heavy rainfall in central and northwestern NSW. There was low to moderate rainfall in southwestern NSW. Rainfall is expected to be usual across most of NSW in April. Temperatures are likely to be in the usual range across NSW in April, with less variation than usual.
- **Tides:** High tides over 1.8 metres are predicted to occur 2 April and between 26 April - 1 May, which could trigger hatching of *Aedes vigilax*.

## Human Arboviral Disease Notifications

- **Ross River Virus:** 22 cases were notified in the week ending 13 March 2021.
- **Barmah Forest Virus:** 2 cases were notified in the week ending 13 March 2021.

## Comments and other findings of note

Stratford virus was detected at Alford's Point at Georges River on 24 March 2021 and at Picnic Point at Georges River on 25 March 2021. Widespread flooding in NSW has affected mosquito trapping this week. As a result, mosquito collection data from fewer sites are available this week.

**Weekly reports are available at:**

[www.health.nsw.gov.au/environment/pests/vector/Pages/surveillance.aspx](http://www.health.nsw.gov.au/environment/pests/vector/Pages/surveillance.aspx)

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

Surveillance and Risk Unit, Environmental Health Branch, Health Protection NSW:  
[hssg-ehbsurveillance@health.nsw.gov.au](mailto:hssg-ehbsurveillance@health.nsw.gov.au)

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

The arbovirus surveillance and mosquito monitoring results in this report remain the property of the NSW Ministry of Health and may not be used or disseminated to unauthorised persons or organisations without permission.

SHPN (HP NSW) 200547

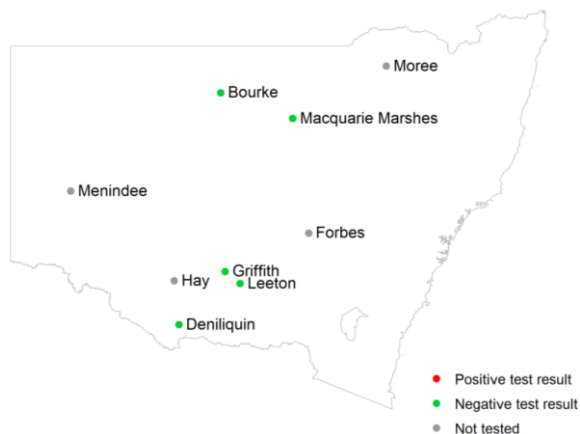
## Arbovirus Detections

This section details detections of Murray Valley 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 and Kunjin virus, indicating exposure to these viruses. A test result is shown if it has been reported in the last two weeks.

#### Test results for sentinel chickens in the week ending 27 March 2021



#### Positive test results in the 2020-2021 surveillance season

| Date of sample collection   | Location | Positive test results |
|---|----------|-----------------------|
| There have been no detections in sentinel chickens in the 2020-2021 surveillance season |          |                       |

### Mosquito isolates

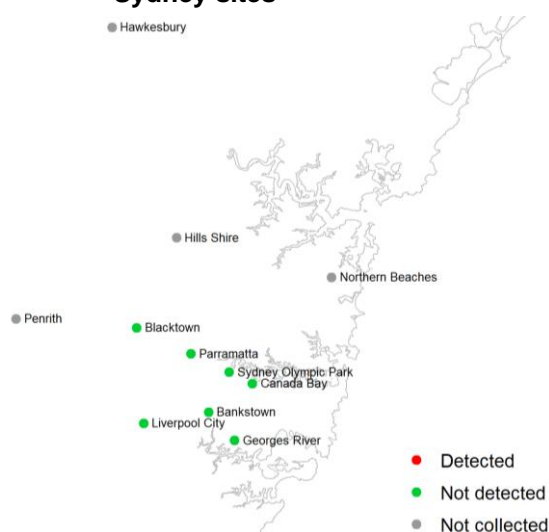
Whole grinds of mosquitoes are tested for arbovirus nucleic acids (including Ross River virus and Barmah Forest virus). There were no detections of Barmah Forest and Ross River virus in this reporting week.

#### Test results for mosquito trapping sites in the week ending 27 March 2021

##### Inland and Coastal sites



##### Sydney sites



#### Ross River and Barmah Forest viruses detected in the past three weeks

| Date of sample collection | Location                | Virus            |
|---------------------------|-------------------------|------------------|
| 17 March 2021             | Clarence Valley (Yamba) | Ross River virus |

## 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 specimens collected in the current reporting week.

*Culex annulirostris* and *Aedes vigilax* are vectors of interest for Ross River virus and Barmah Forest virus.

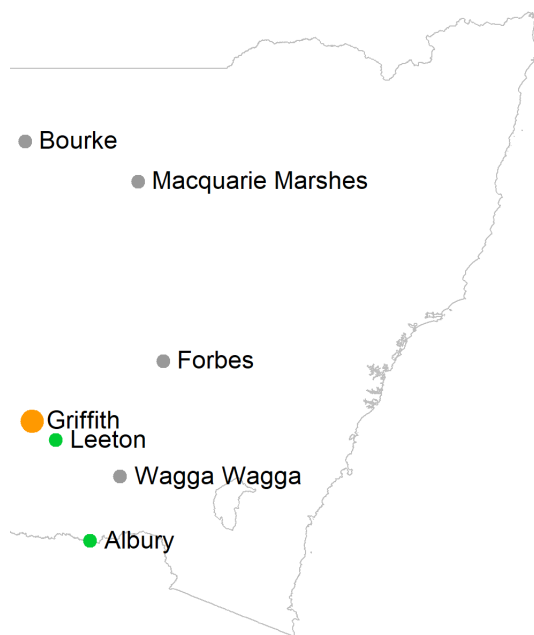
### Mosquito counts in the week ending 27 March 2021

#### Key:

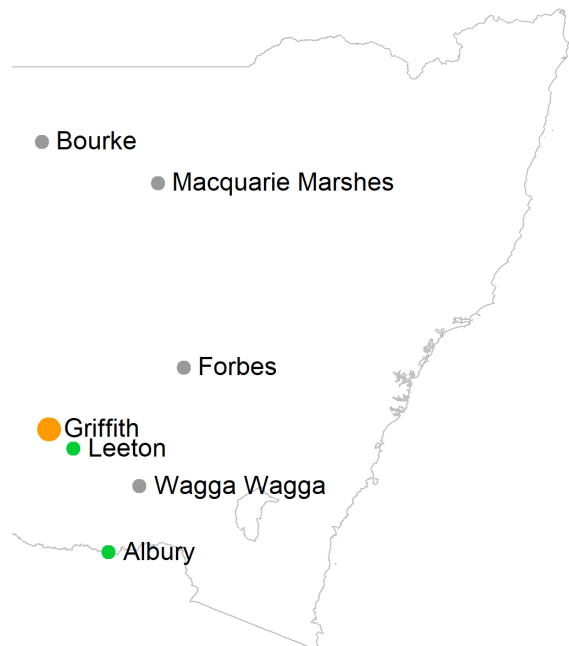
- No collection
- Low (<50)
- Medium (50-100)
- High (101-1,000)
- Very high (1,001-10,000)
- Extreme (>10,000)

#### Inland sites

##### Total mosquito counts



##### *Culex annulirostris* counts



## Coastal sites

### Total mosquito counts



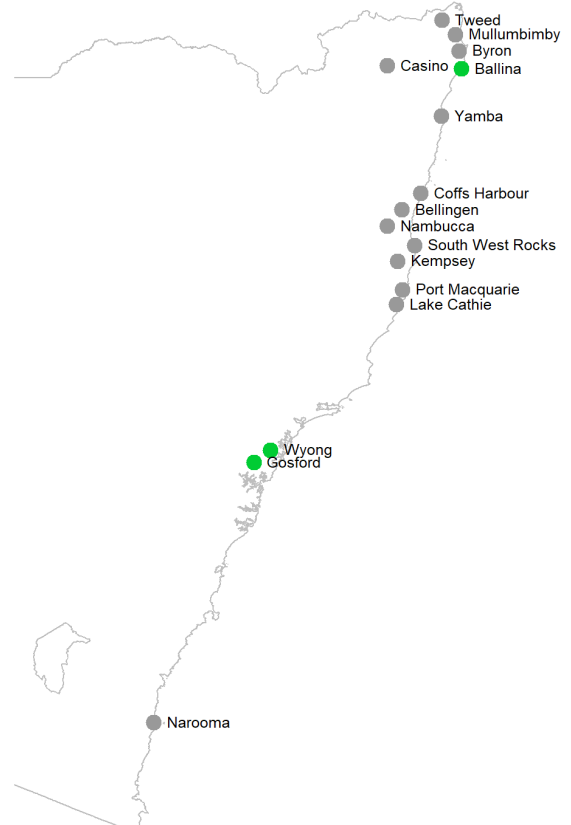
### Key:

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

### *Culex annulirostris* counts

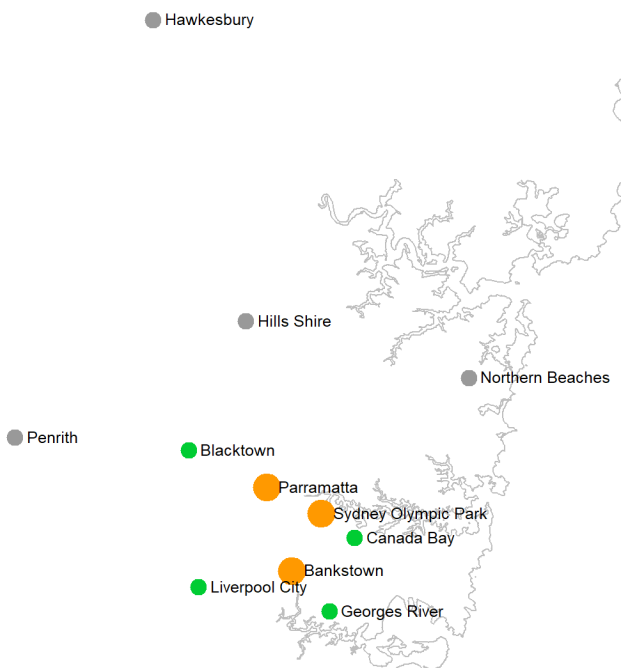


### *Aedes vigilax* counts



## Sydney sites

### Total mosquito counts



### Key:

- 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



## Mosquito abundance data for 2020-21 season to date

### Key:

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

Data in the below tables represent the average for all trapping sites at that location. “*Cx. annul*” refers to *Culex annulirostris* and “*Ae.vigilax*” refers to *Aedes vigilax*.

### Inland

|                   |                  | WEEK ENDING |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |   |    |    |        |   |   |    |    |    |
|-------------------|------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|----|----|--------|---|---|----|----|----|
|                   |                  | Nov-20      |        |        |        | Dec-20 |        |        |        | Jan-21 |        |        |        | Feb-21 |        |        |        | Mar-21 |        |        |        | Apr-21 |   |    |    | May-21 |   |   |    |    |    |
| Location          | Mosquito         | 7           | 14     | 21     | 28     | 5      | 12     | 19     | 26     | 2      | 9      | 16     | 23     | 30     | 6      | 13     | 20     | 27     | 6      | 13     | 20     | 27     | 3 | 10 | 17 | 24     | 1 | 8 | 15 | 22 | 29 |
| Albury            | <i>Cx. annul</i> | Green       | Green  | Green  | Green  | Yellow | Green  | Yellow | Green  |        | Green  | Orange | Yellow |        | Green  | Green  | Yellow | Green  | Yellow | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |
|                   | Total            | Green       | Green  | Yellow | Green  | Yellow | Green  | Yellow | Green  |        | Yellow | Orange | Yellow |        | Green  | Green  | Orange | Green  | Yellow | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |
| Bourke            | <i>Cx. annul</i> |             |        |        |        | Green  | Green  |        |        |        |        | Green  | Green  | Green  | Green  | Green  | Green  | Green  | Green  | Green  |        |        |   |    |    |        |   |   |    |    |    |
|                   | Total            |             |        |        |        | Green  | Green  |        |        |        |        | Green  | Green  | Green  | Green  | Green  | Green  | Green  | Green  | Green  |        |        |   |    |    |        |   |   |    |    |    |
| Forbes            | <i>Cx. annul</i> | Green       | Orange |        | Orange | Green  | Orange | Orange | Orange | Orange | Red    | Green  | Orange | Green  | Orange | Orange | Orange | Orange | Green  | Green  | Green  |        |   |    |    |        |   |   |    |    |    |
|                   | Total            | Orange      | Orange |        | Orange | Green  | Orange | Orange | Orange | Orange | Red    | Green  | Yellow | Green  | Orange | Orange | Orange | Orange | Yellow | Yellow | Green  |        |   |    |    |        |   |   |    |    |    |
| Griffith          | <i>Cx. annul</i> |             | Yellow | Green  | Orange | Orange | Red    | Red    |        |        |        | Orange | Red    | Orange | Orange | Orange | Orange | Orange |        | Orange | Green  | Orange |   |    |    |        |   |   |    |    |    |
|                   | Total            |             | Orange | Orange | Orange | Orange | Red    | Red    |        |        |        | Orange | Red    | Red    | Red    | Red    | Orange | Orange |        | Orange | Yellow | Orange |   |    |    |        |   |   |    |    |    |
| Leeton            | <i>Cx. annul</i> | Green       | Green  | Green  |        | Green  | Green  | Green  | Green  |        | Green  |        |        |        | Green  |        | Yellow | Green  | Green  | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |
|                   | Total            | Green       | Green  | Yellow |        | Green  | Green  | Green  | Green  |        | Green  |        |        |        | Green  |        | Orange | Green  | Green  | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |
| Macquarie Marshes | <i>Cx. annul</i> |             |        |        |        |        |        |        |        |        |        | Orange |        |        |        |        |        |        |        |        |        |        |   |    |    |        |   |   |    |    |    |
|                   | Total            |             |        |        |        |        |        |        |        |        |        | Orange |        |        |        |        |        |        |        |        |        |        |   |    |    |        |   |   |    |    |    |
| Wagga Wagga       | <i>Cx. annul</i> | Green       | Green  | Green  | Green  |        | Green  | Green  |        |        | Green  | Green  | Green  |        | Green  | Yellow | Green  | Green  | Green  | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |
|                   | Total            | Green       | Green  | Green  | Green  |        | Green  | Green  |        |        | Yellow | Green  | Green  |        | Green  | Yellow | Yellow | Green  | Green  | Green  | Green  | Green  |   |    |    |        |   |   |    |    |    |

# Coastal

|                  |                    | WEEK ENDING |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|------------------|--------------------|-------------|----|----|----|--------|----|----|----|--------|---|----|----|--------|---|----|----|--------|---|----|----|--------|---|----|----|--------|---|---|----|----|----|
|                  |                    | Nov-20      |    |    |    | Dec-20 |    |    |    | Jan-21 |   |    |    | Feb-21 |   |    |    | Mar-21 |   |    |    | Apr-21 |   |    |    | May-21 |   |   |    |    |    |
| Location         | Mosquito           | 7           | 14 | 21 | 28 | 5      | 12 | 19 | 26 | 2      | 9 | 16 | 23 | 30     | 6 | 13 | 20 | 27     | 6 | 13 | 20 | 27     | 3 | 10 | 17 | 24     | 1 | 8 | 15 | 22 | 29 |
| Ballina          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Bellingen        | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Byron            | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Casino           | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Coffs Harbour    | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Gosford          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Kempsey          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Mullumbimby      | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Port Macquarie   | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Tweed            | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Wyong            | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Yamba            | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Narooma          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| South West Rocks | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Nambucca         | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                  | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |



# Sydney

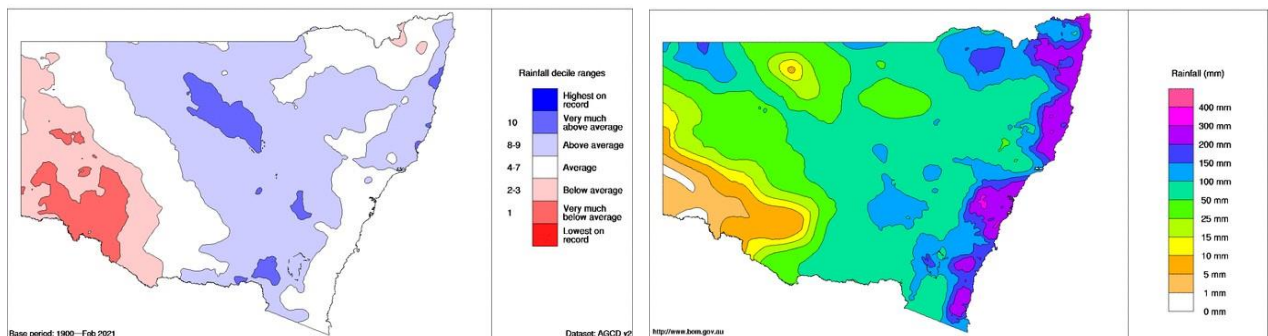
|                     |                    | WEEK ENDING |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|---------------------|--------------------|-------------|----|----|----|--------|----|----|----|--------|---|----|----|--------|---|----|----|--------|---|----|----|--------|---|----|----|--------|---|---|----|----|----|
|                     |                    | Nov-20      |    |    |    | Dec-20 |    |    |    | Jan-21 |   |    |    | Feb-21 |   |    |    | Mar-21 |   |    |    | Apr-21 |   |    |    | May-21 |   |   |    |    |    |
| Location            | Mosquito           | 7           | 14 | 21 | 28 | 5      | 12 | 19 | 26 | 2      | 9 | 16 | 23 | 30     | 6 | 13 | 20 | 27     | 6 | 13 | 20 | 27     | 3 | 10 | 17 | 24     | 1 | 8 | 15 | 22 | 29 |
| Bankstown           | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Blacktown           | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Canada Bay          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Georges River       | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Hawkesbury          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Hills Shire         | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Liverpool City      | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Northern Beaches    | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Parramatta          | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Penrith             | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
| Sydney Olympic Park | <i>Cx. annul</i>   |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | <i>Ae. vigilax</i> |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |
|                     | Total              |             |    |    |    |        |    |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |    |    |        |   |   |    |    |    |

## Environmental Conditions

Mosquitoes require water to breed. Rainfall and tides (for the salt marsh mosquito) are important contributing factors for proliferation of mosquito numbers. Unseasonably warm weather can also contribute to higher mosquito numbers.

### Rainfall

In February, rainfall was higher than usual across most of central and northeastern NSW. Rainfall was lower than usual in far western and southwestern NSW. Rainfall was usual in coastal NSW, south of Newcastle (left). In the week ending 27 March 2021, there was heavy rainfall in coastal NSW, especially in areas along the north coast. There was moderate to heavy rainfall in central and northwestern NSW. There was low to moderate rainfall in southwestern NSW (right).



Source: Australian Government, Bureau of Meteorology: <http://www.bom.gov.au/climate/maps/rainfall>

### Upcoming month's rainfall and temperature outlook

The Bureau of Meteorology's rainfall outlook map predicts usual rainfall across NSW in April.

[www.bom.gov.au/climate/outlooks/#/rainfall/median/monthly/0](http://www.bom.gov.au/climate/outlooks/#/rainfall/median/monthly/0)

The Bureau of Meteorology's temperature outlook maps predict that maximum temperatures are likely to be lower than usual across most of NSW in April. Minimum temperatures are likely to be above usual in southern NSW, around usual across the rest of NSW in April.

[www.bom.gov.au/climate/outlooks/#/temperature/maximum/median/monthly/0](http://www.bom.gov.au/climate/outlooks/#/temperature/maximum/median/monthly/0)

[www.bom.gov.au/climate/outlooks/#/temperature/minimum/median/monthly/0](http://www.bom.gov.au/climate/outlooks/#/temperature/minimum/median/monthly/0)

### Tides

Tidal information is relevant for the prediction of the activity of the salt marsh mosquito, *Aedes vigilax*. Typically for NSW, high tides of over 1.8m, as measured at Sydney, can induce hatching of *Aedes vigilax* larvae. Predicted tide heights can provide some indication of when this is likely to occur.

#### Dates of predicted high tides of over 1.8 m at Sydney (Fort Denison) for the next month

- 2 April 2021
- 26-30 April 2021
- 1 May 2021

Source: Australian Government, Bureau of Meteorology: <http://www.bom.gov.au/australia/tides/#/nsw-sydney-fort-denison>

Note: Measured tides at Sydney Port Jackson for the current week are available from the NSW Government, Manly Hydraulics Laboratory: <https://mhl.nsw.gov.au/Data-OceanTide>.

## Human Arboviral Disease Notifications

Under the *NSW Public Health Act 2010*, all arboviral infections are notifiable in NSW. The NSW Health Communicable Diseases Weekly Report (CDWR)

([www.health.nsw.gov.au/Infectious/reports/Pages/CDWR.aspx](http://www.health.nsw.gov.au/Infectious/reports/Pages/CDWR.aspx)) details cases by the week that they are received by NSW Public Health Units.

The data for Ross River virus and Barmah Forest virus from the CDWR for the latest reported 3 weeks are in the following table.

### Recent notifications of Ross River virus and Barmah Forest virus in humans

(by date of case report received)

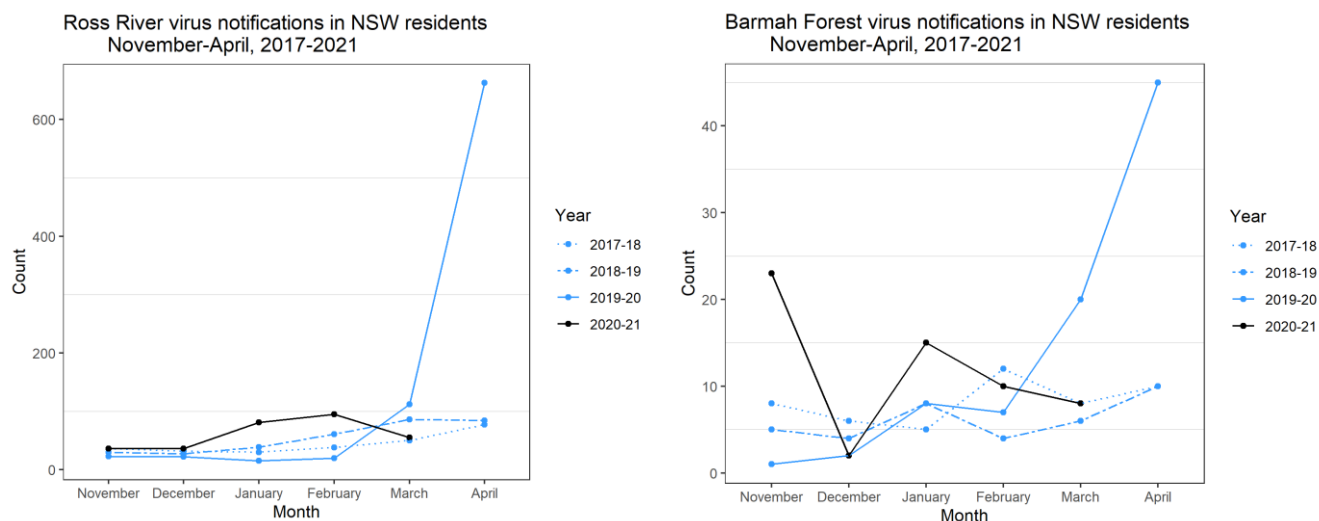
|                            | Week                             |                                       |                                     |
|----------------------------|----------------------------------|---------------------------------------|-------------------------------------|
|                            | Latest week<br>(7 - 13 Mar 2021) | 1-week prior<br>(28 Feb – 6 Mar 2021) | 2-weeks prior<br>(21 - 27 Feb 2021) |
| <b>Ross River virus</b>    | 22                               | 16                                    | 16                                  |
| <b>Barmah Forest virus</b> | 2                                | 1                                     | 3                                   |

Source: CDWR, Communicable Diseases Branch, Health Protection NSW, NSW Health  
Notifications are for NSW residents - infection may have been acquired outside NSW.

Monthly Ross River virus and Barmah Forest virus notifications, by month of disease onset (the earlier of patient-reported onset, specimen, or notification date), are available at the following NSW Health website:

<https://www1.health.nsw.gov.au/IDD/pages/data.aspx>

The following figures show the monthly number of notifications of Ross River virus and Barmah Forest virus for the current NSW Arbovirus and Mosquito Monitoring season (November 2020 to April 2021), and the same period in the previous three years.



Source: NSW Health Notifiable Conditions Information Management System (NCIMS), Communicable Diseases Branch and Centre for Epidemiology and Evidence, NSW Health

Note: The data for the current month are the notifications to date (data extracted on 29 March 2021).