



Government of **Western Australia**  
Department of **Health**

# Medical Entomology Quarterly Report

## Wheatbelt Health Region: Oct – Dec 2021



# Ross River virus disease case data summary

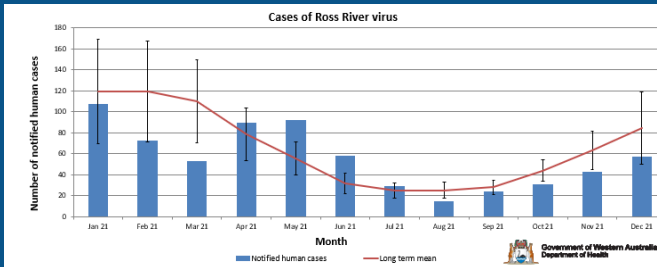
## Western Australia: 2021/22

Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and local governments (only locations with notified cases of disease are shown in tables and figures).

### Ross River virus (RRV) Western Australia

A total of **129** cases of RRV were notified between 1 October 2021 and 31 December 2021 in Western Australia. Of these **97** cases were notified by Doctor and follow-up data is available for **63** cases.

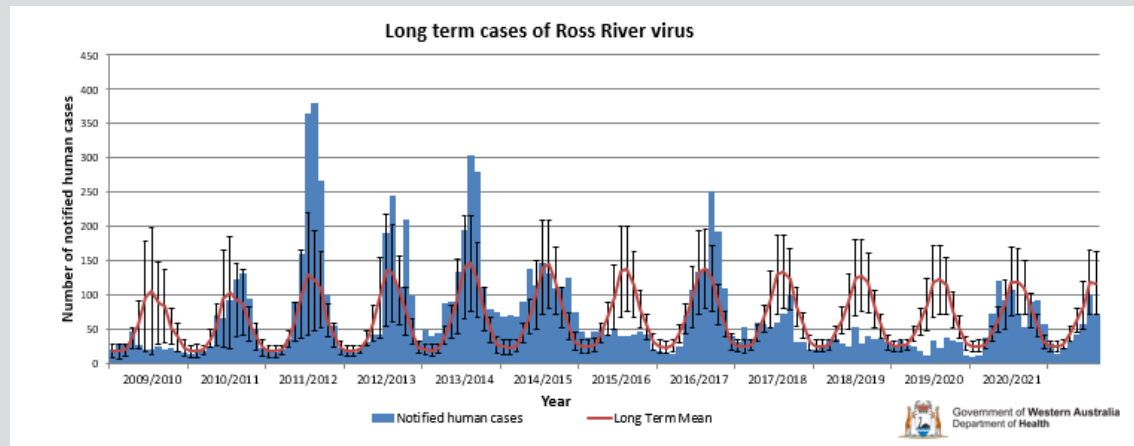
The number of cases was **significantly below the long term mean** for October and November, and below the long term mean for December 2021.



Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2021 - June 2022 #

\* Compiled by the Medical Entomology, WA Department of Health

REGION	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude Rate	Age Std Rate
KIMBERLEY	0	3	0	1	1	0	1	1	0	0	0	0	7	19.4	19.7
PILBARA	1	0	0	1	2	0	1	1	0	0	0	0	6	9.5	8.3
GASCOYNE	11	2	1	0	0	0	0	0	0	0	0	0	14	151.2	151.3
MIDWEST	1	1	8	3	4	3	3	0	0	0	0	0	23	38.4	34.8
WHEATBELT	1	0	2	3	5	1	4	4	0	0	0	0	20	29.3	30.7
METRO	3	3	2	7	11	18	39	41	0	0	0	0	124	6.7	6.7
SW - PEEL	1	3	3	11	10	15	20	11	0	0	0	0	74	26.1	26.8
SW - LESCHENAULT	5	0	1	0	2	5	10	6	0	0	0	0	29	38.9	39.8
SW - Geographe	0	0	1	0	2	3	5	0	0	0	0	0	11	18.7	19.3
SW - ELSEWHERE	3	0	1	0	1	3	4	3	0	0	0	0	15	30.9	26.0
SOUTH WEST(Total)	9	3	6	11	15	26	39	20	0	0	0	0	129	27.8	
GREAT SOUTHERN	2	1	2	3	2	7	13	5	0	0	0	0	35	57.0	55.3
GOLDFIELDS-ESPERANCE	0	2	3	1	2	2	2	0	0	0	0	0	12	22.3	20.9
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE	2	0	1	1	2	0	0	0	0	0	0	0	6		
<b>WA TOTAL (does not include interstate)</b>	<b>28</b>	<b>15</b>	<b>24</b>	<b>30</b>	<b>42</b>	<b>57</b>	<b>102</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>370</b>		



# Ross River virus disease case data summary

## Wheatbelt Health Region: Oct – Dec 2021



Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and local governments (only locations with notified cases of disease are shown in tables and figures).

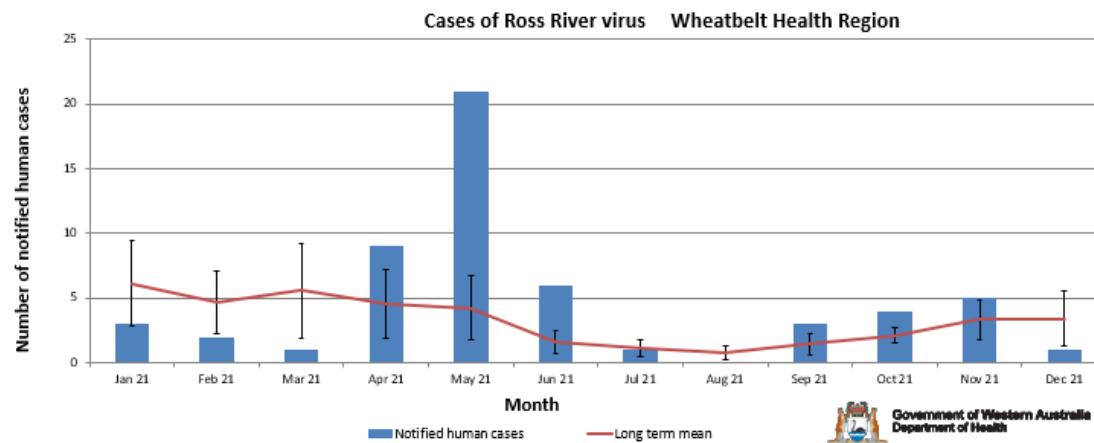
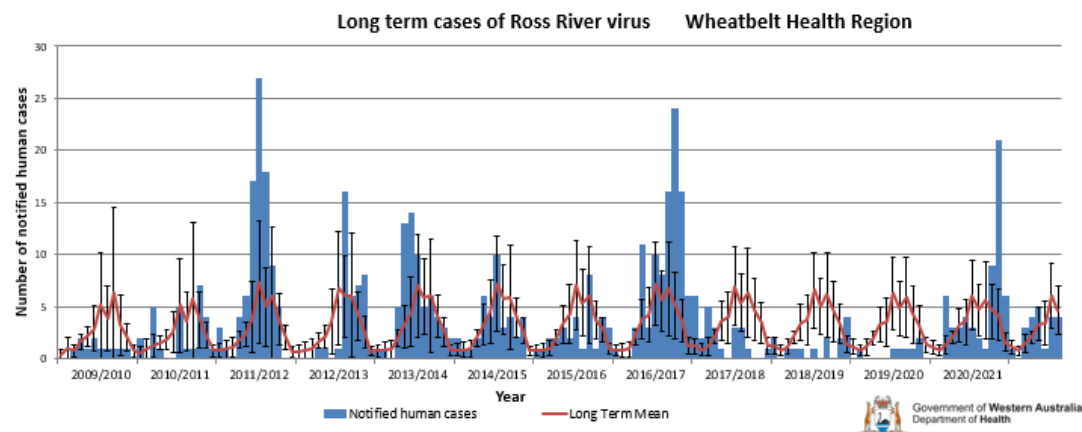
### Ross River virus (RRV)

#### Wheatbelt Health Region

10 RRV cases for the Wheatbelt Health Region including 7 cases notified by Doctor. Follow-up data is available for 6 cases.

The number of cases was **significantly above the long term mean** for October, **above the long term mean** for November and **significantly below the long term mean** for December 2021.

RRV 2021	Oct	Nov	Dec	Total
<b>Midwest</b>	1			1
Dandaragan (S)	1			1
JURIEN BAY	1			1
<b>Wheatbelt</b>	3	5	1	9
<b>Cuballing (S)</b>		1		1
POPANYINNING		1		1
<b>Kellerberrin (S)</b>		1		1
KELLERBERRIN		1		1
<b>Kondinin (S)</b>		1		1
HYDEN		1		1
<b>Lake Grace (S)</b>			1	1
LAKE GRACE			1	1
<b>Merredin (S)</b>		1		1
MERREDIN		1		1
<b>Narrogin (S)</b>	1			1
BOUNDAIN	1			1
<b>Pingelly (S)</b>		1		1
PINGELLY		1		1
<b>Toodyay (S)</b>	1			1
TOODYAY	1			1
<b>Victoria Plains (S)</b>	1			1
YERECOIN	1			1
<b>Total</b>	4	5	1	10



# Barmah Forest virus disease case data summary

## Wheatbelt Health Region and State summary: Oct – Dec 2021

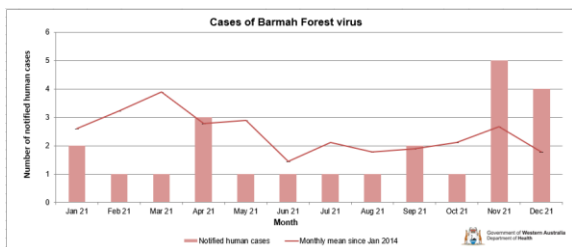
Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and local governments (only locations with notified cases of disease are shown in tables and figures).

### Barmah Forest virus (BFV)

#### Western Australia

A total of 10 cases of BFV have been reported between 1 October 2021 and 31 December 2021 in Western Australia. 4 were notified by Doctor and follow-up data is available for 3 cases.

The number of cases was above the long term mean for November and December.



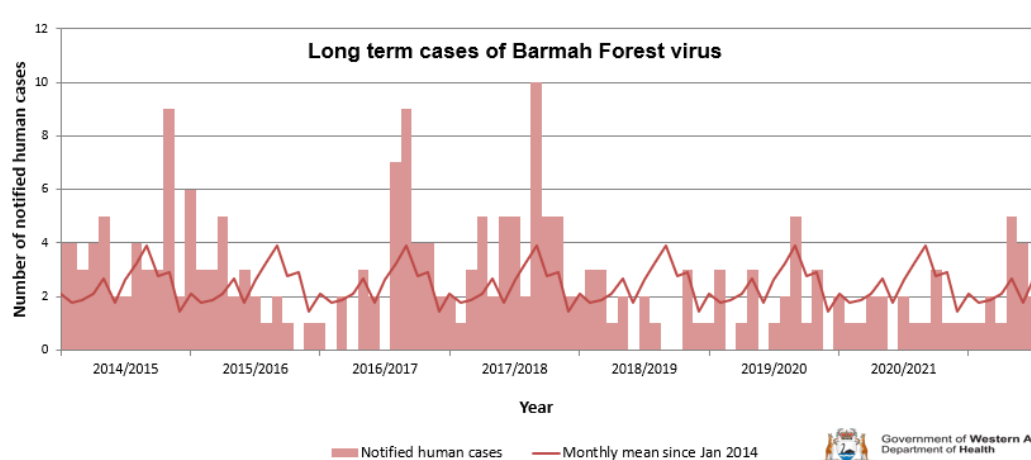
Serologically confirmed doctor-notified and laboratory reported cases of Barmah Forest virus disease each month in WA, July 2021 - June 2022 #																
* Compiled by the Medical Entomology, WA Department of Health																
REGION	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude Rate	Age Std Rate	
KIMBERLEY	0	1	0	0	0	0	0	1	0	0	0	0	2	5.5	12.2	
PILBARA	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
GASCOYNE	0	0	0	0	0	0	1	0	0	0	0	0	1	10.8	15.7	
MIDWEST	0	0	0	0	3	0	0	0	0	0	0	0	3	5.0	5.5	
WHEATBELT	1	0	0	0	0	0	0	0	0	0	0	0	1	1.5	2.1	
METRO	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1	0.1	
SW - PEEL	0	0	1	0	0	1	0	0	0	0	0	0	2	0.7	0.5	
SW - LESCHENAULT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
SW - Geographe	0	0	0	0	1	2	1	0	0	0	0	0	4	6.8	5.7	
SW - ELSEWHERE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
SOUTH WEST(Total)	0	0	1	0	1	3	1	0	0	0	0	0	6	1.3		
GREAT SOUTHERN	0	0	0	0	1	1	0	0	0	0	0	0	2	3.3	2.3	
GOLDFIELDS-ESPERANCE	0	0	0	1	0	0	0	0	0	0	0	0	1	1.9	2.2	
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0			
INTERSTATE	0	0	0	0	0	0	1	0	0	0	0	0	1			
<b>WA TOTAL (does not include interstate)</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>			

### Barmah Forest virus (BFV)

#### Wheatbelt Health Region

No BFV cases were notified in the Wheatbelt Health Region between October to December 2021.

The long term monthly mean is less than one case per month for this region.





# Climate outlook for Western Australia

## Mar - May 2022

### Predicted impact of climatic conditions on mosquito breeding

La Niña remains active and is at or past its peak and should return to neutral in coming months during autumn.

The IOD is neutral levels, and has little influence on Australian climate at this time of year.

**Impact on mosquito breeding:** Warmer days and nights across much of the state are conducive to mosquito breeding and possible mosquito-borne virus activity where water remains stagnant. No MVE or Kunjin virus activity has been detected in sentinel chicken flocks in the Pilbara and Kimberley since September 2021.

### El Niño–Southern Oscillation (ENSO)

A weather forecast based on interaction between the atmosphere and tropical Pacific Ocean. Conditions can be El Niño, La Niña or neutral:

**El Niño:** Associated with drier conditions, decreased rainfall and tidal activity. Warmer days in south. Late start to northern wet season with less cyclones and less flooding.

**La Niña:** Associated with wetter, cooler days and warmer nights (due to increased cloud cover). Earlier start to the northern wet season with more tropical cyclones. More conducive to mosquito breeding and possible mosquito-borne virus activity.

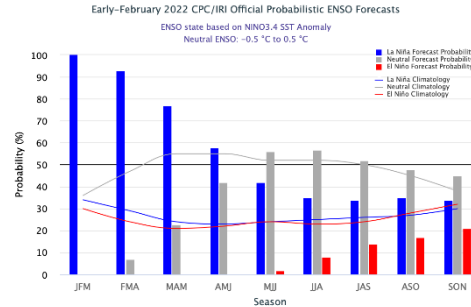
### Indian Ocean Dipole (IOD)

**Positive IOD:** Brings below average winter-spring rainfall, warmer days in the west, warmer nights in the south west, and cooler nights in the north.

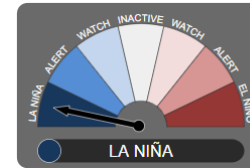
**Negative IOD:** Brings above average winter-spring rainfall, cooler days in the south, and warmer nights in the north with increased chances of flooding.

### International Research Institute for Climate and Society (IRI ENSO) Forecast & BOM

Issued 18 February 2022



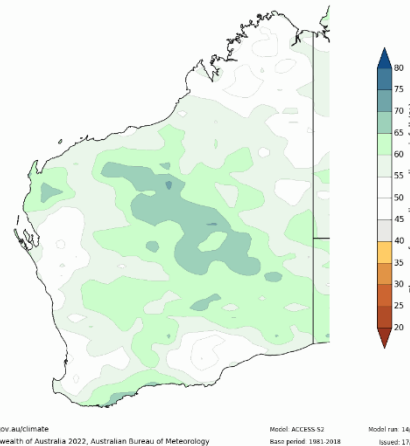
**ENSO Alert Status:**  
**La Niña at or past its peak,** but its influence will persist until mid-autumn.



### Australian BOM Rainfall Outlook

Issued 17 February 2022

Chance of exceeding the median rainfall for March to May 2022

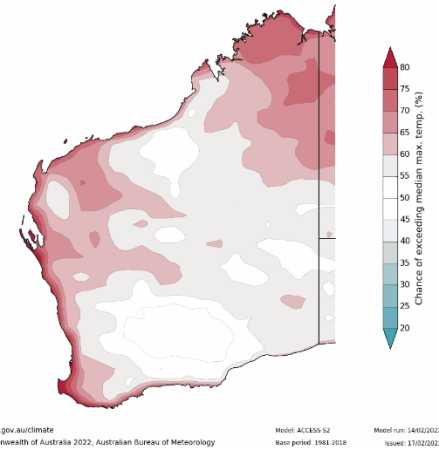


Rainfall is likely to be above median for large parts of the state, with average rainfall expected for other parts.

### Australian BOM Temperature Outlook

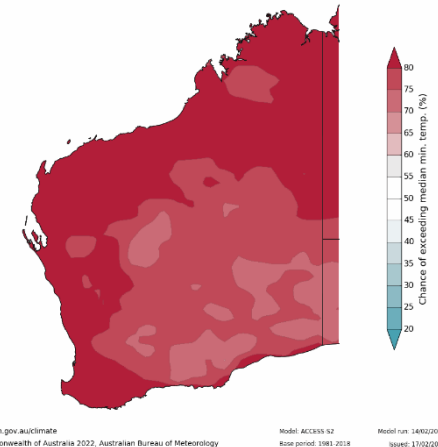
Issued 17 February 2022

Chance of exceeding the median maximum temperature for March to May 2022



**Daytime temperatures** are likely to be above median the coastal areas and tropical north, with average temperatures in other areas.

Chance of exceeding the median minimum temperature for March to May 2022



**Night-time temperatures** are very likely to be warmer than median across the whole state.