



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

# Medical Entomology Quarterly Report

## Kimberley Health Region: Jul – Sep 2021



# Ross River virus disease case data summary

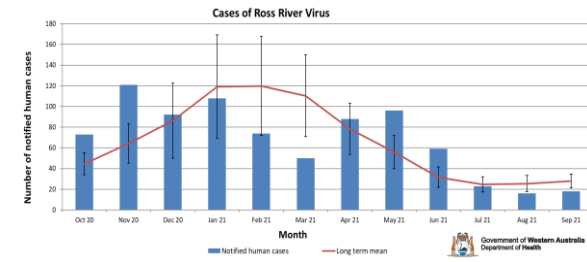
## Western Australia: 2021/22

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 59 cases of RRV have been reported between 1 July 2021 and 30 September 2021 in Western Australia. Of these **43** cases were notified by Doctor and follow-up data is available for **13** cases.

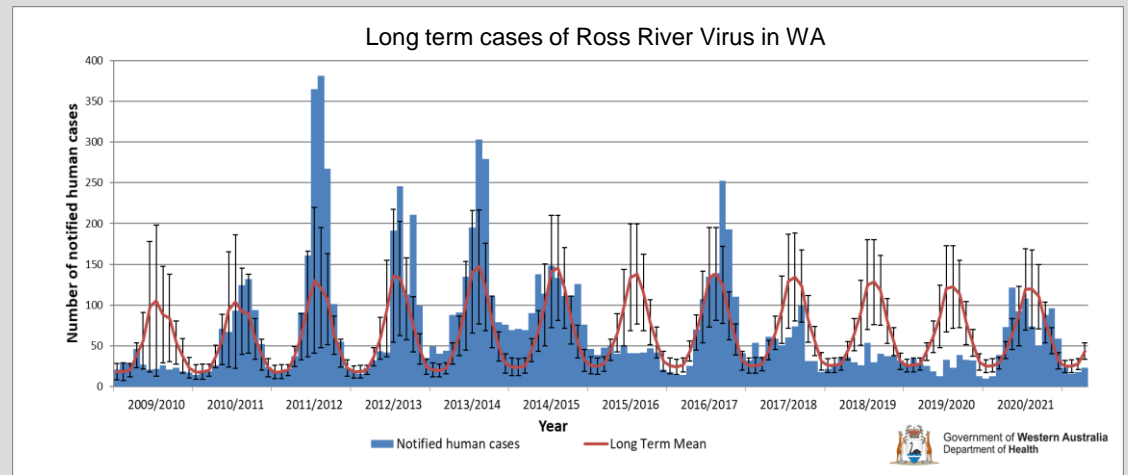
The number of cases was close to average for July and **significantly below** the long term average for August and September.



**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	0	0	0	0	0	0	0	0	4	11.1	10.3
PILBARA	1	0	0	0	0	0	0	0	0	0	0	0	1	1.6	1.6
GASCOYNE	7	5	2	1	0	0	0	0	0	0	0	0	15	162.0	168.7
MIDWEST	1	0	5	2	2	0	0	0	0	0	0	0	10	16.7	17.0
WHEATBELT	1	0	1	1	3	0	0	0	0	0	0	0	6	8.8	9.3
METRO	3	3	2	7	6	0	0	0	0	0	0	0	21	1.1	1.1
PEEL	0	3	1	7	4	0	0	0	0	0	0	0	15	5.3	5.2
LESCHENAULT	4	0	1	1	1	0	0	0	0	0	0	0	7	9.4	10.5
GEOGRAPHE	0	0	1	0	0	0	0	0	0	0	0	0	1	1.7	1.9
ELSEWHERE SW	3	0	1	0	0	0	0	0	0	0	0	0	4	8.2	7.7
SOUTH WEST	7	3	4	8	5	0	0	0	0	0	0	0	27	5.8	
GREAT SOUTHERN	2	0	2	1	0	0	0	0	0	0	0	0	5	8.1	6.9
GOLDFIELDS-ESPERANCE	0	2	2	2	0	0	0	0	0	0	0	0	6	11.1	10.3
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE	2	0	0	0	0	0	0	0	0	0	0	0	2		
<b>WA TOTAL (does not include interstate)</b>	<b>22</b>	<b>16</b>	<b>18</b>	<b>23</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95</b>		



# Ross River virus disease case data summary

## Kimberley Health Region: Jul – Sep 2021



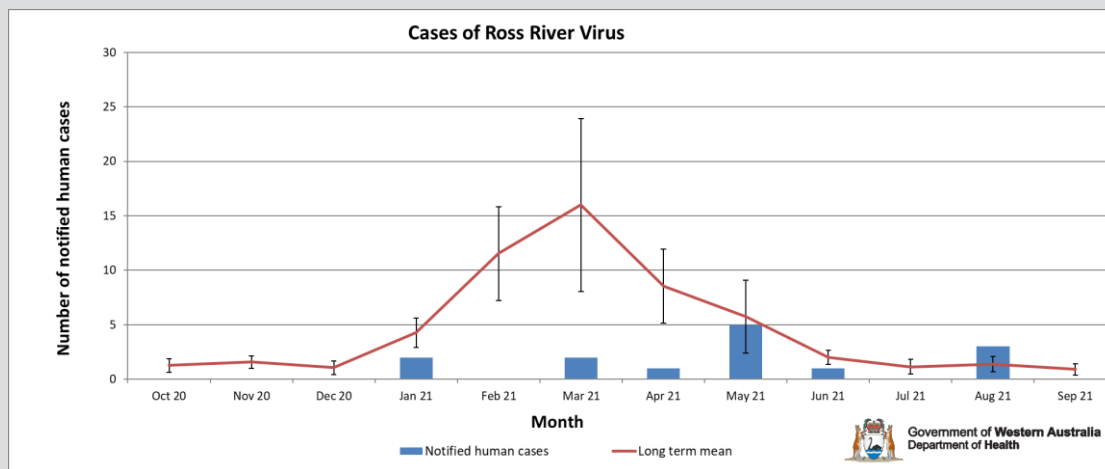
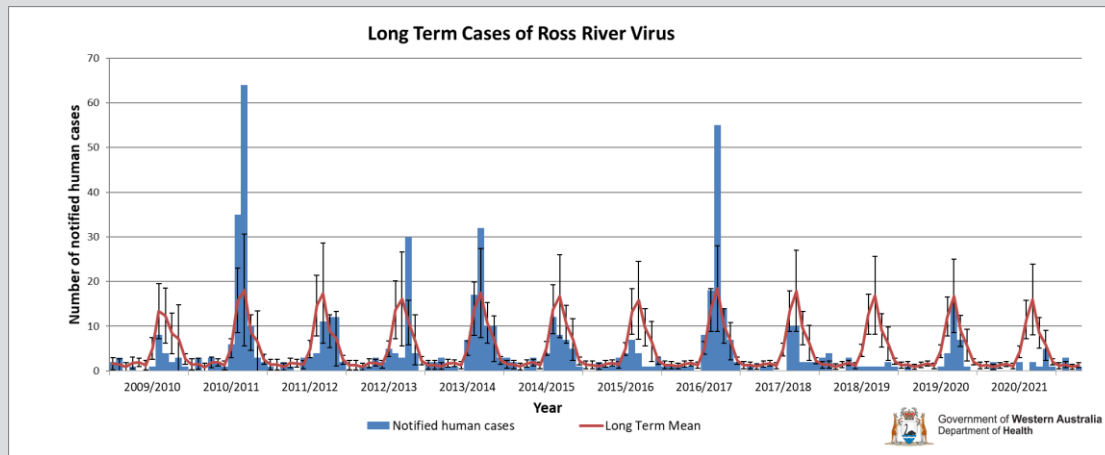
Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and local governments (only locations with notified cases of disease are shown in tables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

### Ross River virus (RRV)

#### Kimberley Health Region

3 RRV cases for the Kimberley Health Region. 2 cases were notified by Doctor. Follow-up data is not available.

The number of cases was **significantly below** the long term average for July and September and **significantly above** for August.



RRV 2021	Jul	Aug	Sep	Total
<b>Kimberley</b>		<b>3</b>		<b>3</b>
<b>Broome (S)</b>		<b>1</b>		<b>1</b>
BROOME		1		1
<b>Wyndham-East Kimberley (S)</b>		<b>2</b>		<b>2</b>
KUNUNURRA		2		2
<b>Total</b>		<b>3</b>		<b>3</b>

# Barmah Forest virus disease case data summary

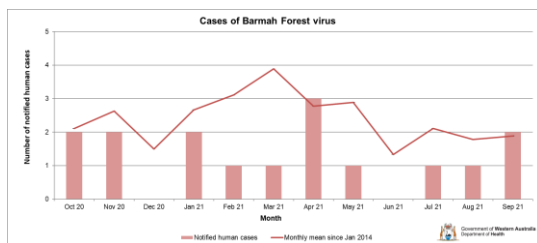
## Kimberley Health Region and State summary: Jul – Sep 2021

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 4 cases of BFV have been reported between 1 July 2021 and 30 September 2021 in Western Australia. 3 were notified by Doctor and follow-up data is available for 1 case.

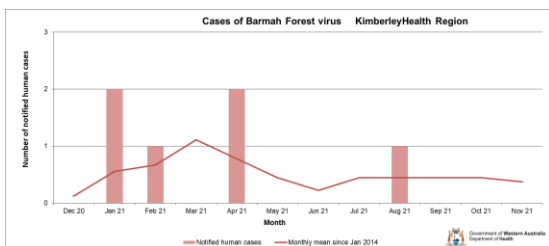
The number of cases was below the long term average for July and August.



### Barmah Forest virus (BFV) Kimberley Health Region

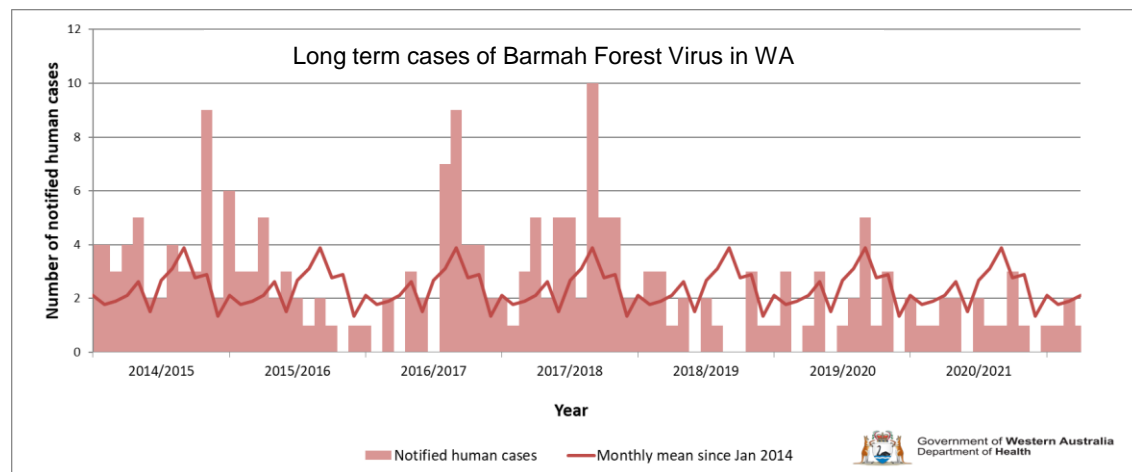
1 BFV case in the Kimberley Health Region between July-September 2021 (in Broome in August) that was not notified by Doctor. Follow-up data is unavailable.

The 5-year moving average is less than one case per month for this region.



\*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	0	0	0	0	0	1	2.8	2.6
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	0	0	0	0	0	0	0	0.0	0.0
MIDWEST	0	0	0	0	1	0	0	0	0	0	0	0	1	1.7	1.6
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
PEEL	0	0	1	0	0	0	0	0	0	0	0	0	1	0.4	0.3
LESCHENAULT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GEOGRAPHE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
ELSEWHERE SW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
SOUTH WEST	0	0	1	0	0	0	0	0	0	0	0	0	1	0.2	
GREAT SOUTHERN	0	0	0	0	1	0	0	0	0	0	0	0	1	1.6	1.2
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	0	0	0	0	0	0	0		
<b>WA TOTAL (does not include interstate)</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>		



# Climate outlook for Western Australia

## Dec 2021 – Feb 2022

### Predicted impact of climatic conditions on mosquito breeding

The ENSO Outlook remains at La Niña ALERT. This means that the El Niño–Southern Oscillation is currently neutral, but the chance of La Niña forming in the coming months is around 70%.

The negative IOD is likely near its end, returning and to reach neutral levels soon which has little influence on Australian climate.

**Impact on mosquito breeding:** Warmer days and nights across much of the state are conducive to mosquito breeding and possible mosquito-borne virus activity. Both MVE and Kunjin virus activity has been detected in some Kimberley and Pilbara sentinel chicken flocks from April through to 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.

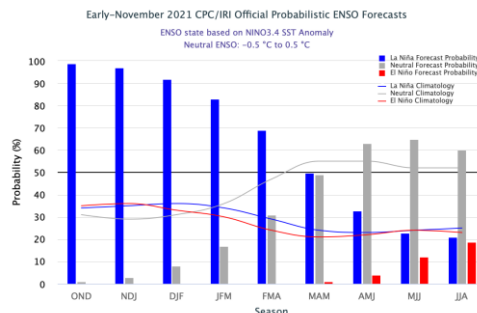
#### Indian Ocean Dipole (IOD)

**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.

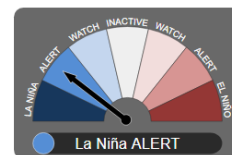
**Negative IOD:** Brings above average winter-spring rainfall, cooler days in the south, and warmer nights in the north with increased chances of flooding.

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

Issued 09 November 2021

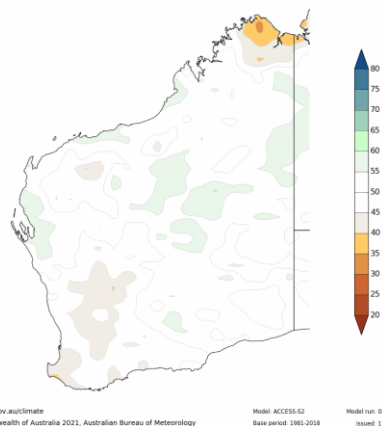


**ENSO Alert Status: La Niña Alert-** with around a 70% chance of La Niña forming in the coming months.



### Australian BOM Rainfall Outlook Issued 11 November 2021

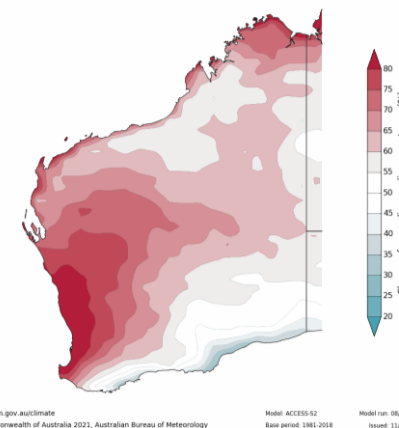
Chance of exceeding the median rainfall for December 2021 to February 2022



**Rainfall** is likely to be close to average for most of the state.

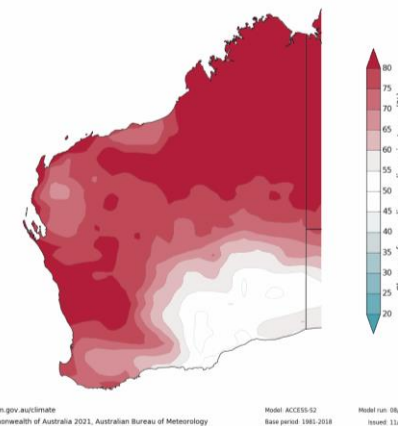
### Australian BOM Temperature Outlook Issued 11 November 2021

Chance of exceeding the median maximum temperature for December 2021 to February 2022



**Daytime temperatures** are likely to be above average for most of the state with the exception of the coastal areas in the state's south east.

Chance of exceeding the median minimum temperature for December 2021 to February 2022



**Night-time temperatures** are very likely to be warmer than average across the north, central and south western areas of the state.