



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

# Medical Entomology Quarterly Report

## South West region: Oct – Dec 2019



# Ross River virus disease case data summary

## South West region: Oct – Dec 2019



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)

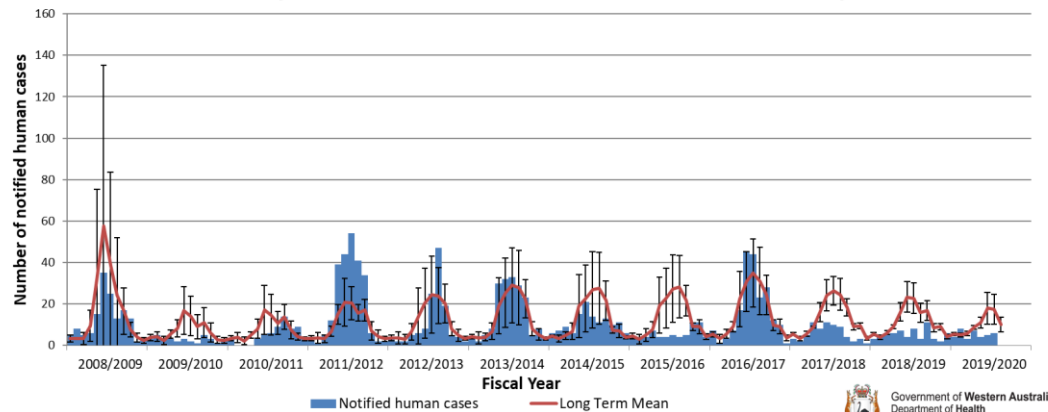
#### South West region

16 RRV cases were notified by lab, including 12 that were also notified by doctor. Follow up data are available for 6 cases.

The number of cases was significantly below the 5 year moving average for this quarter.

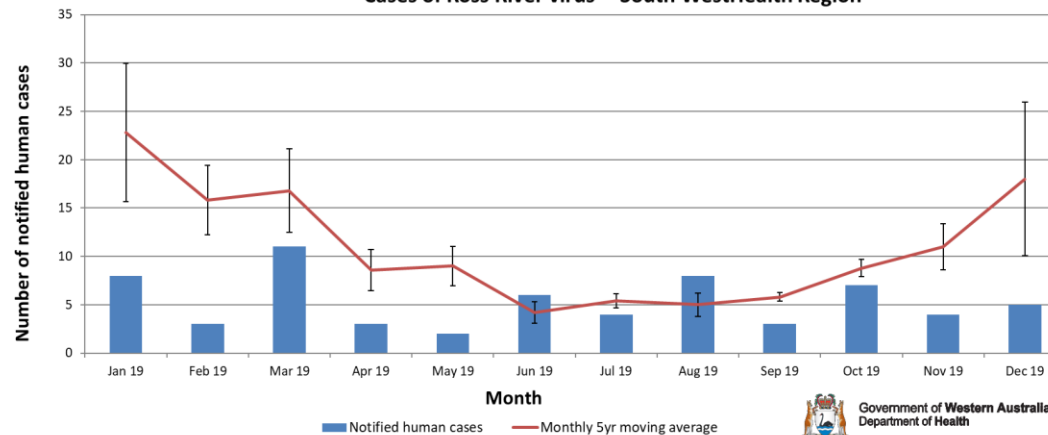
RRV 2019	Oct	Nov	Dec	Total
<b>SW - Elsewhere</b>	3	1		4
<b>Augusta-Margaret River (S)</b>	2	1		3
AUGUSTA		1		1
MARGARET RIVER	2			2
<b>Donnybrook-Balingup (S)</b>	1			1
DONNYBROOK	1			1
<b>SW - Geographe</b>	2	3	4	9
<b>Capel (S)</b>	1	1	2	4
DALYELLUP	1		1	2
GELORUP		1	1	2
<b>Busselton (C)</b>	1	2	2	5
BUSSELTON		1	1	2
DUNSBOROUGH	1	1		2
YALLINGUP			1	1
<b>SW - Leschenault</b>	2		1	3
<b>Dardanup (S)</b>	1		1	2
EATON	1		1	2
<b>Harvey (S)</b>	1			1
AUSTRALIND	1			1
<b>Total</b>	7	4	5	16

Long term cases of Ross River virus South West Health Region



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Cases of Ross River virus South West Health Region



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# Ross River virus disease case data summary

## Western Australia: 2019/20

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### Ross River virus (RRV) Western Australia

A total of 181 cases of RRV have been reported between 1 July 2019 and 15 February 2020 in Western Australia.

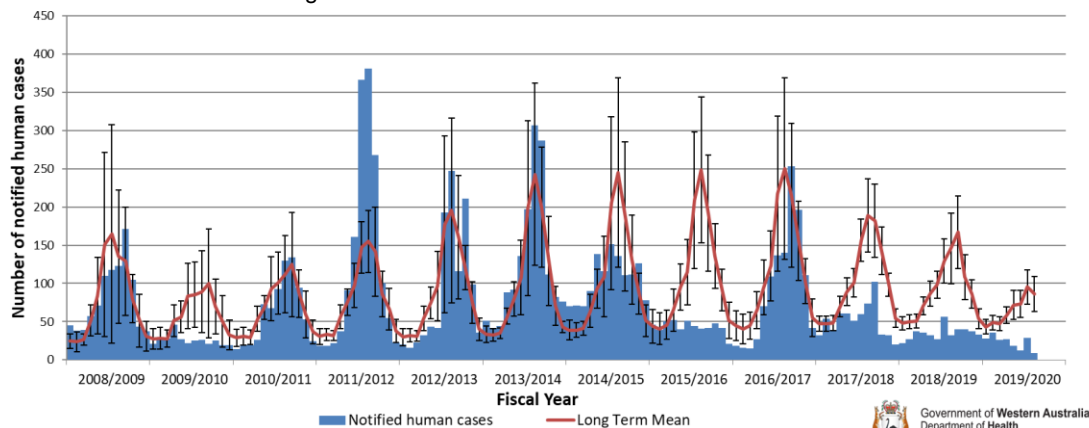
The number of cases was significantly below the 5-year moving average.

Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2019 - June 2020 #

\* 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	2.9
PILBARA	4	3	1	1	1	0	3	0	0	0	0	0	13	21.1	18.8
GASCOYNE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
MIDWEST	4	0	1	0	0	0	1	0	0	0	0	0	6	9.9	9.4
WHEATBELT	0	1	0	0	0	0	0	0	0	0	0	0	1	1.5	0.8
METRO	7	15	17	14	8	3	14	8	0	0	0	0	86	4.8	4.6
	PEEL	4	4	4	2	5	3	4	1	0	0	0	27	9.9	8.9
	LESCHENAULT	3	2	2	2	0	1	1	0	0	0	0	11	14.9	14.2
	GEOGRAPHE	1	4	1	2	3	4	3	0	0	0	0	18	31.6	36.2
	ELSEWHERE SW	0	2	0	3	1	0	1	0	0	0	0	7	14.7	15.6
SOUTH WEST	8	12	7	9	9	8	9	1	0	0	0	0	63	14.0	
GREAT SOUTHERN	0	1	0	2	0	0	2	0	0	0	0	0	5	8.2	8.6
GOLDFIELDS-ESPERANCE	2	3	0	0	0	1	0	0	0	0	0	0	6	10.9	11.3
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE	3	0	0	1	0	0	0	0	0	0	0	0	4		
<b>WA TOTAL (does not include interstate)</b>	<b>25</b>	<b>36</b>	<b>26</b>	<b>26</b>	<b>18</b>	<b>12</b>	<b>29</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>181</b>		

Long term cases of Ross River Virus in WA



# Barmah Forest virus disease case data summary

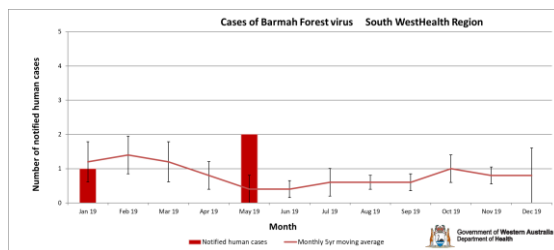
## South West and State summary: 2019/20

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) South West region

No BFV cases were notified.

The 5 year moving average is less than 3 cases for this quarter.



### Barmah Forest virus (BFV) Western Australia

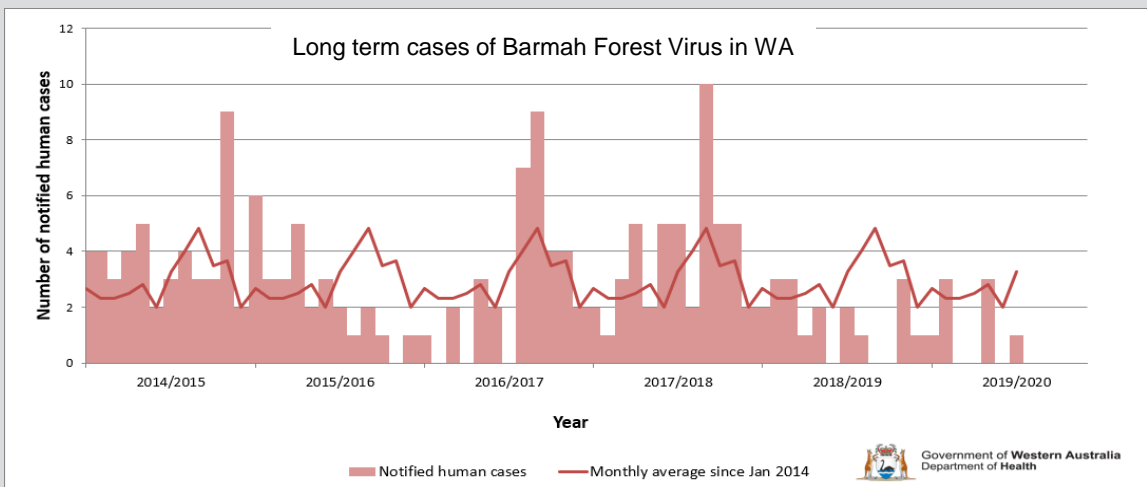
A total of 7 cases of BFV have been reported between 1 July 2019 and 31 January 2020 in Western Australia.

The number of cases was significantly below the 5-year moving average.

Serologically confirmed doctor-notified and laboratory reported cases of Barmah Forest virus disease each month in WA, July 2019 - June 2020 #

# 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	2.9
PILBARA	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GASCOYNE	1	0	0	0	0	0	0	0	0	0	0	0	1	10.6	9.7
MIDWEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
WHEATBELT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
METRO	0	2	0	0	0	0	0	0	0	0	0	0	2	0.1	0.1
PEEL	0	0	0	0	1	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	0	0	1	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	1.0
GOLDFIELDS-ESPERANCE	0	0	0	0	1	0	0	0	0	0	0	0	1	1.8	1.7
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>3</b>	<b>0</b>	<b>0</b>	<b>3</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

## March – May 2020

### Predicted impact of climatic conditions on mosquito breeding

ENSO and the Indian Ocean Dipole are neutral and likely to remain neutral through autumn. As a result average seasonal rainfall is expected.

**Impact on mosquito breeding:** Average rainfall conditions are less conducive to mosquito breeding in natural environments. However in the south west a higher chance of above average rainfall is predicted, combined with warmer temperatures may bring an increased chance of mosquito breeding and mosquito borne disease prevalence.

### 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.

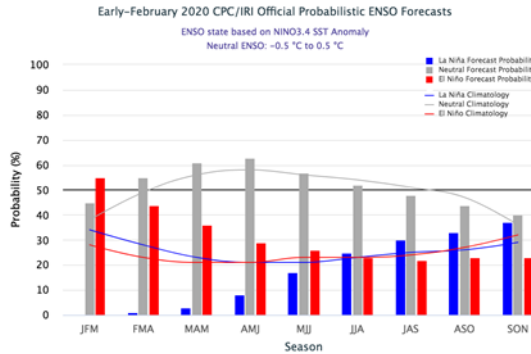
**La Niña:** associated with wetter, cooler days and warmer nights. More conducive to mosquito breeding.

### Positive Indian Ocean Dipole

Brings below average rainfall, and above average temperatures.

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

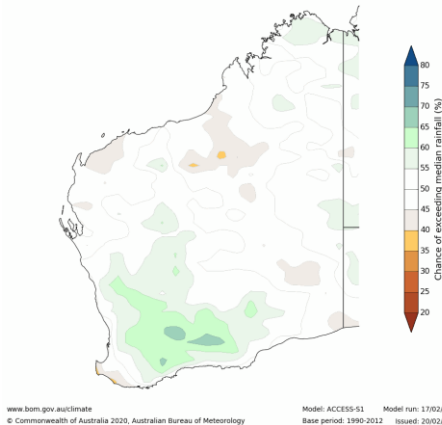
Issued 13 February 2020



**ENSO Alert Status is Not Active. ENSO-neutral** is expected to continue through to Autumn and Winter 2020.

### Australian BOM Rainfall Outlook Issued 20 February 2020

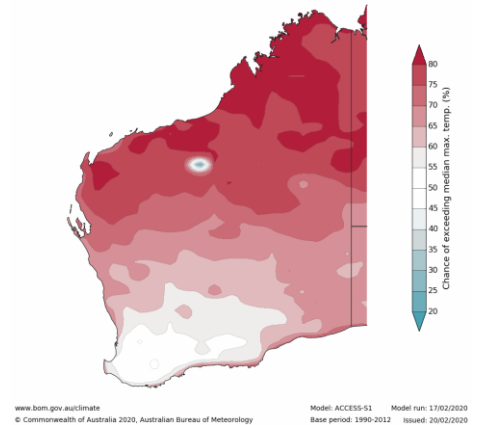
Chance of exceeding the median rainfall for March to May 2020



**Rainfall** is likely to be above average in the south west of WA.

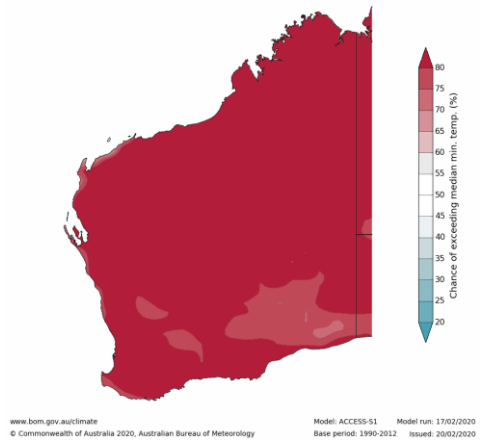
### Australian BOM Temperature Outlook Issued 20 February 2020

Chance of exceeding the median maximum temperature for March to May 2020



**Daytime temperatures for autumn are likely to be above average** across Australia, although days have roughly equal chances of being above or below average in the south.

Chance of exceeding the median minimum temperature for March to May 2020



Autumn night-time temperatures are likely to be warmer than average.