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

Medical Entomology Quarterly Report

South West Health Region: Jul – Sep 2020

health.wa.gov.au

Ross River virus disease case data summary

South West Health Region: Jul – Sep 2020

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)

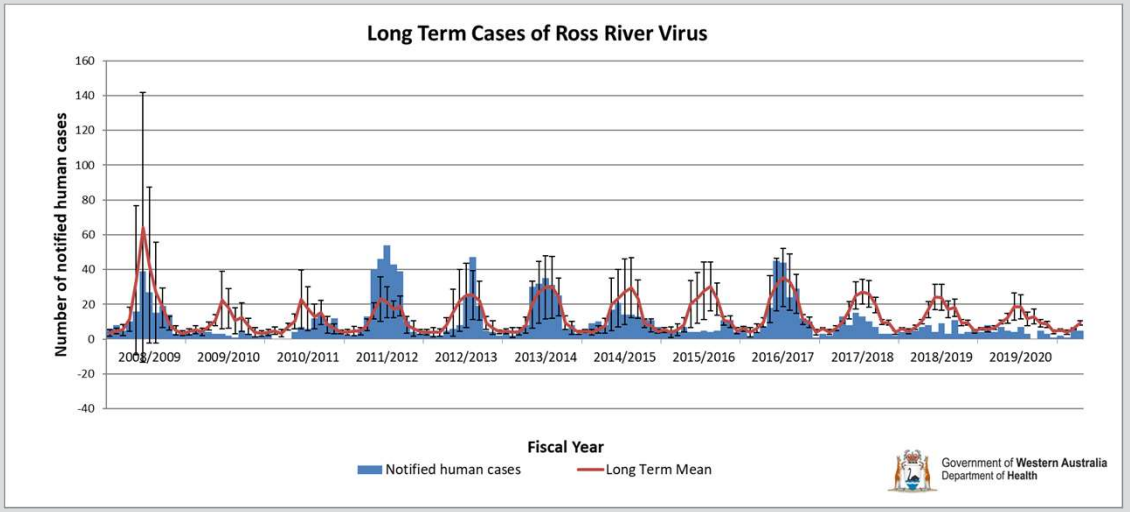
South West Health Region

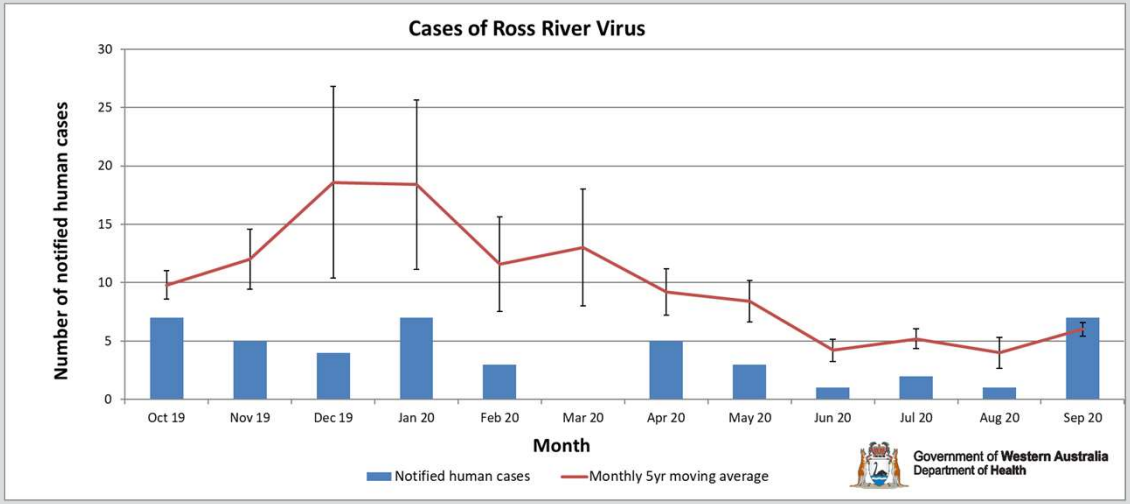
10 RRV cases have been notified this quarter for the South West Health region, 8 were notified by Doctor with follow-up data available for 4 cases.

The number of cases has been significantly below the 5-year moving average for all months except September.

South West Health Region

RRV 2020	Jul	Aug	Sep	Total
SW - Geographe	**1**	**1**	**4**	**6**
Capel (S)		**1**		**1**
DALYELLUP		1		1
Busselton (C)	**1**		**4**	**5**
BUSSELTON	1		1	2
GEOGRAPHE			1	1
WEST BUSSELTON			1	1
YALYALUP			1	1
SW - Leschenault	**1**		**3**	**4**
Harvey (S)	**1**		**3**	**4**
AUSTRALIND			2	2
BRUNSWICK	1			1
LESCHENAULT			1	1
Total	**2**	**1**	**7**	**10**





Ross River virus disease case data summary

Western Australia: 2019/20

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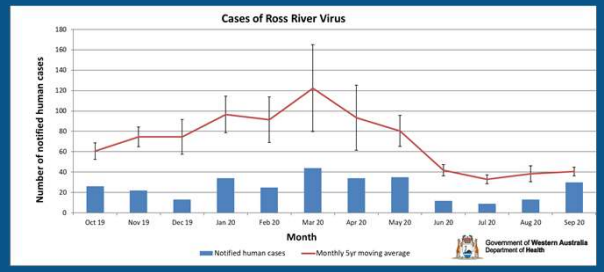
Ross River virus (RRV)

Western Australia

A total of 48 cases of RRV have been reported between 1 July 2020 and 30 September 2020 in Western Australia. 31 cases were notified by Doctor and follow-up data is available for 17 cases.

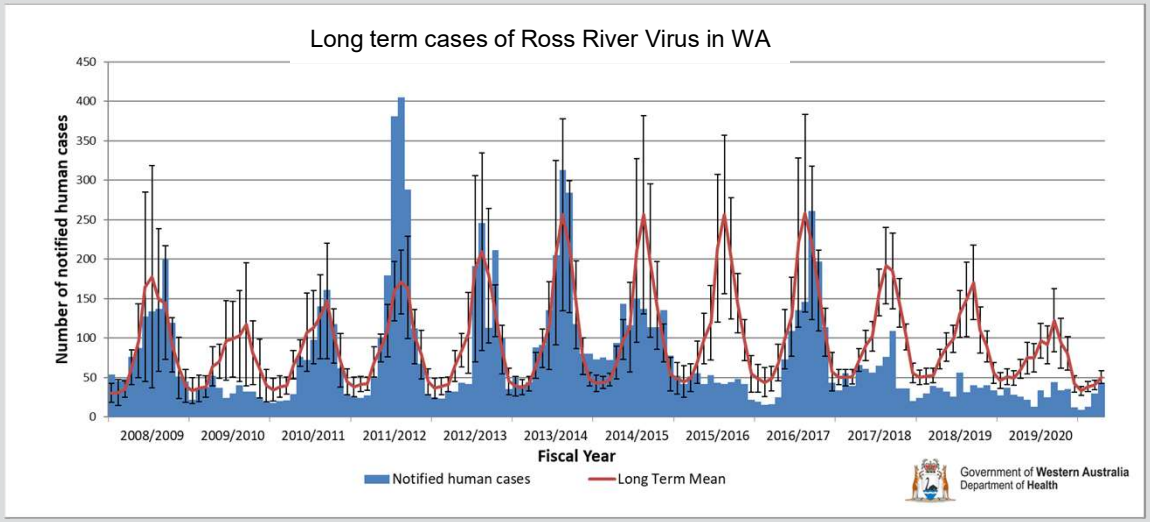
The number of cases was significantly below the 5-year moving average.



Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2020 - June 2021 #

‡ 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	0	1	0	0	0	0	0	0	0	0	0	1	2.8	3.2
PILBARA		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GASCOYNE		0	0	1	2	0	0	0	0	0	0	0	0	3	31.8	30.9
MIDWEST		0	4	4	6	1	0	0	0	0	0	0	0	15	24.7	22.8
WHEATBELT		0	0	1	0	0	0	0	0	0	0	0	0	1	1.5	1.4
METRO		2	3	11	12	1	0	0	0	0	0	0	0	29	1.6	1.5
	PEEL	2	3	4	15	3	0	0	0	0	0	0	0	27	9.9	9.7
	LESCHENAULT	1	0	3	1	1	0	0	0	0	0	0	0	6	8.1	8.2
	GEOGRAPHE	1	1	4	3	7	0	0	0	0	0	0	0	16	28.1	27.4
	ELSEWHERE SW	0	0	0	1	0	0	0	0	0	0	0	0	1	2.1	2.1
SOUTH WEST		4	4	11	20	11	0	0	0	0	0	0	0	50	11.1	
GREAT SOUTHERN		1	1	0	1	0	0	0	0	0	0	0	0	3	4.9	4.1
GOLDFIELDS-ESPERANCE		0	0	0	1	0	0	0	0	0	0	0	0	1	1.8	1.8
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		
WA TOTAL (does not include interstate)		**7**	**12**	**29**	**42**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**103**		



Barmah Forest virus disease case data summary

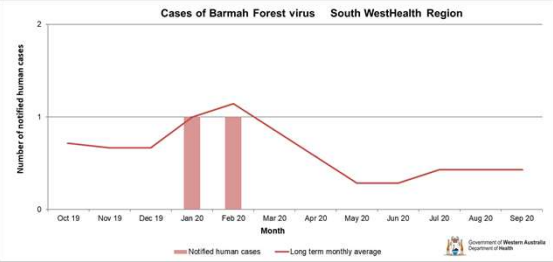
South West Health Region and State summary: 2019/20

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)
Western Australia

A total of 4 cases of BFV have been reported between 1 July 2020 and 30 September 2020 in Western Australia. 2 were notified by Doctor and follow-up data is available for 1 case.

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



Barmah Forest virus (BFV)
South West Health region

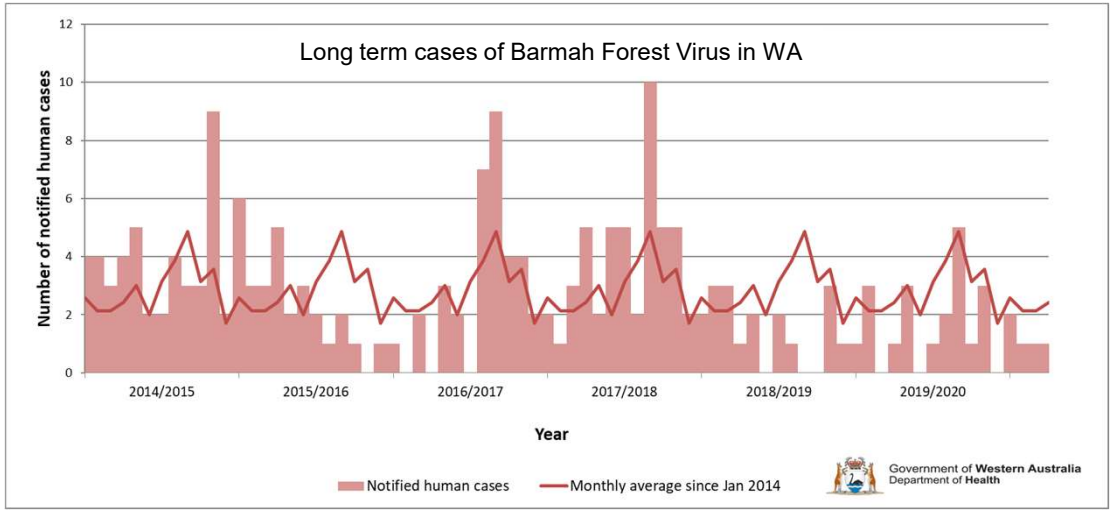
No BFV cases were notified in the South West Health Region between Jul-Sep 2020.

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

Serologically confirmed doctor-notified and laboratory reported cases of Barmah Forest virus disease each month in WA, July 2020 - June 2021 #

‡ 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		2	0	1	1	0	0	0	0	0	0	0	0	4	11.1	9.8
PILBARA		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GASCOYNE		0	0	0	0	1	0	0	0	0	0	0	0	1	10.6	12.5
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	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	PEEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	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	0	0	0	0	0	0	0	0	0	0.0	
GREAT SOUTHERN		0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GOLDFIELDS-ESPERANCE		0	1	0	0	0	0	0	0	0	0	0	0	1	1.8	1.6
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		
WA TOTAL (does not include interstate)		**2**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**		



Climate outlook for Western Australia

Dec – Feb 2020

Predicted impact of climatic conditions on mosquito breeding

La Niña is underway and is likely to continue until at least end of summer 20-21 (February 2021).

The IOD is currently neutral, having less influence on WA's climate and most models suggest it will remain neutral for the rest of 2020.

Impact on mosquito breeding: Above average rainfall conditions and warmer nights (across the state) are conducive to mosquito breeding and possible mosquito-borne virus activity. Recent surveillance of mosquitoes has also detected increased virus prevalence across the SW.

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.

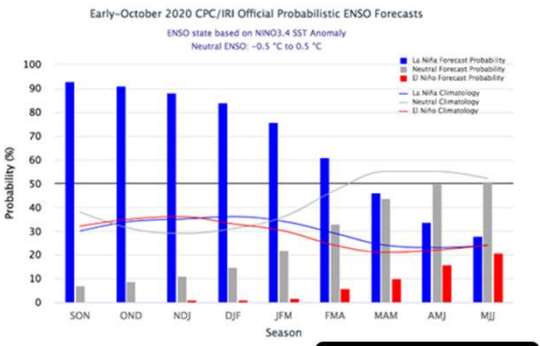
Indian Ocean Dipole (IOD)

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.

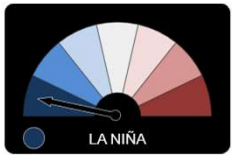
Negative IOD: Brings above average winter-spring rainfall, cooler days in the south, and warmer nights in the north with increased chances of flooding.

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

Issued 19 Oct 2020

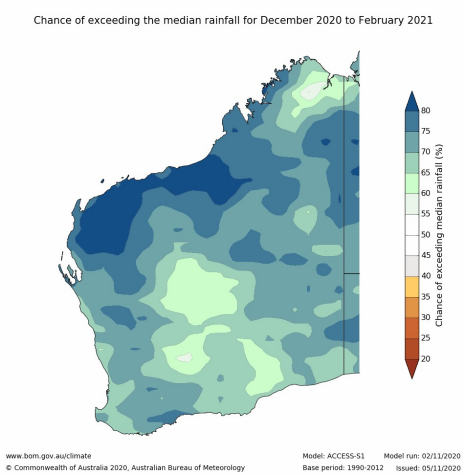


ENSO Alert Status: La Niña likely to continue until at least end of February 2021.



Australian BOM Rainfall Outlook

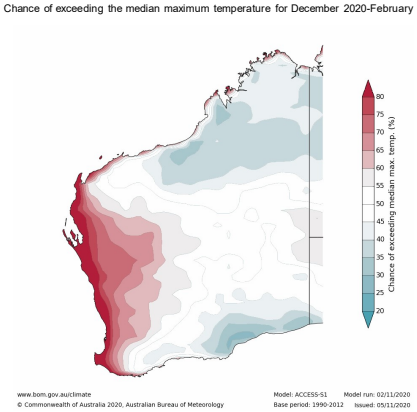
Issued 05 November 2020



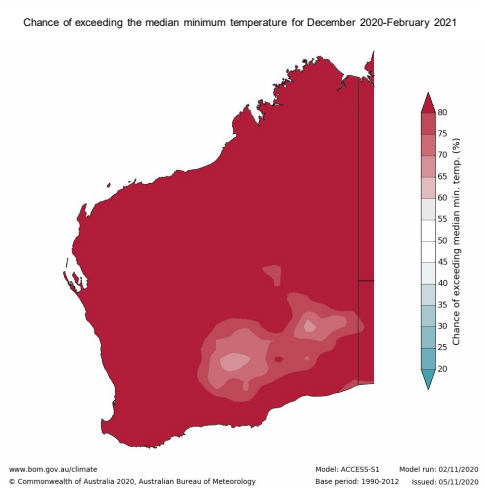
Rainfall is likely to be above average across the state.

Australian BOM Temperature Outlook

Issued 05 November 2020



Daytime temperatures are likely to be warmer than average for the far west of WA and at or below average for the rest of the state.



Night-time temperatures are very likely to be warmer than average across most of the state.