



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

Medical Entomology Quarterly Report

Midwest Health Region: Oct – Dec 2021



Ross River virus disease case data summary

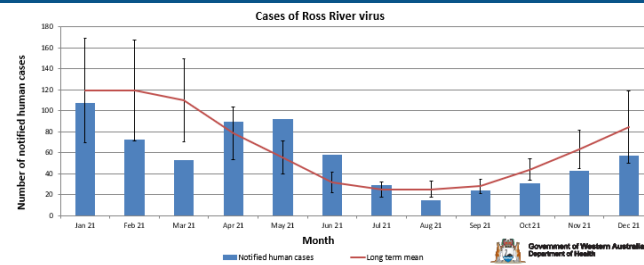
Western Australia: 2021/22

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.

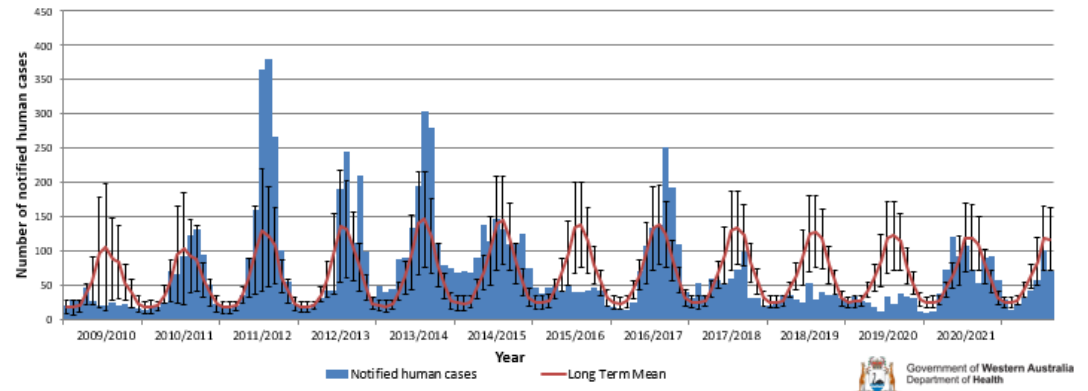


Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2021 - June 2022 #

* 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		
WA TOTAL (does not include interstate)	28	15	24	30	42	57	102	72	0	0	0	0	370		

Long term cases of Ross River virus



Ross River virus disease case data summary

Midwest Health Region: Oct – Dec 2021



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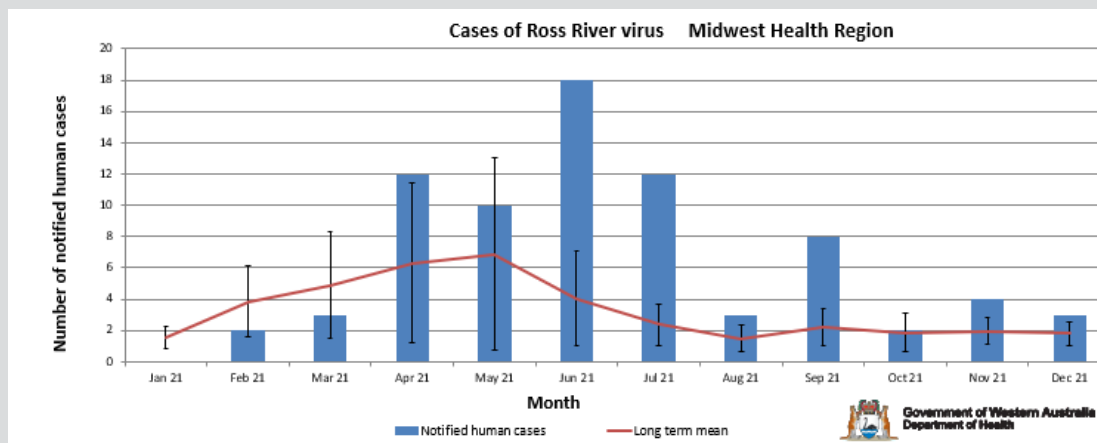
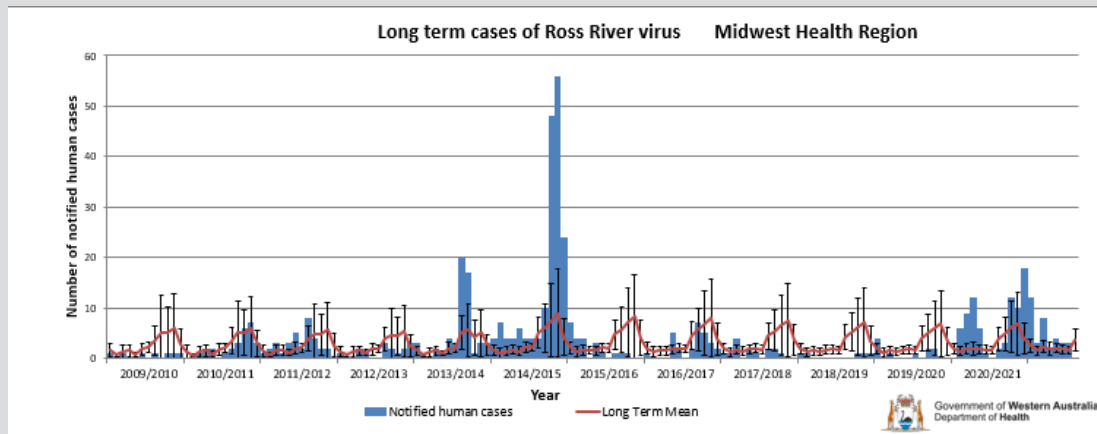
Ross River virus (RRV)

Midwest Health Region

9 RRV cases were notified for the Midwest Health Region, including 7 notified by Doctor. Follow-up data is available for 2 cases.

The number of cases were **at the long term mean** for October and **significantly above the long term mean** for November and December 2021 for the quarter.

RRV 2021	Oct	Nov	Dec	Total
Midwest	2	4	3	9
Carnamah (S)		1		1
CARNAMAH		1		1
Irwin (S)			1	1
PORT DENISON			1	1
Northampton (S)	2	1	1	4
KALBARRI	2	1		3
EAST BOWES			1	1
Yalgoo (S)		1		1
YALGOO		1		1
Greater Geraldton (C)		1	1	2
GERALDTON			1	1
MORESBY		1		1
Total	2	4	3	9



Barmah Forest virus disease case data summary

Midwest Health Region and State summary: Oct – Dec 2021

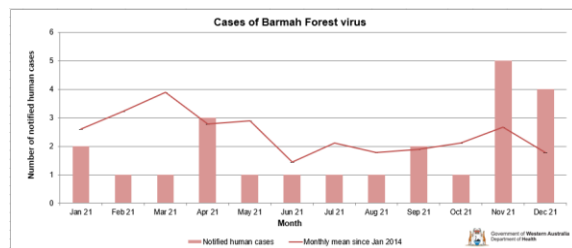
Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and local governments (only locations with notified cases of disease are shown in tables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

Barmah Forest virus (BFV)

Western Australia

A total of 10 cases of BFV have been reported between October and 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.



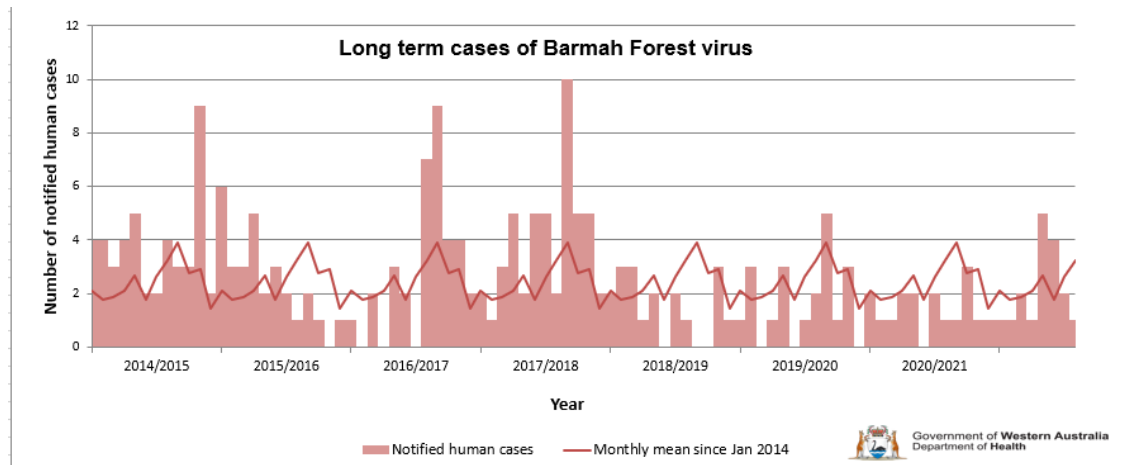
Barmah Forest virus (BFV)

Midwest Health Region

3 BFV cases were notified, including one notified by Doctor, between October to December 2021. No follow-up data is available. The long term monthly mean is less than one case per month for this region.

BFV 2021	Oct	Nov	Dec	Total
Midwest		3		3
Northampton (S)		1		1
KALBARRI		1		1
Greater Geraldton (C)		2		2
RANGEWAY		1		1
SOUTH GREENOUGH		1		1
Total		3		3

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		
WA TOTAL (does not include interstate)	1	1	2	1	5	4	2	1	0	0	0	0	17		



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.

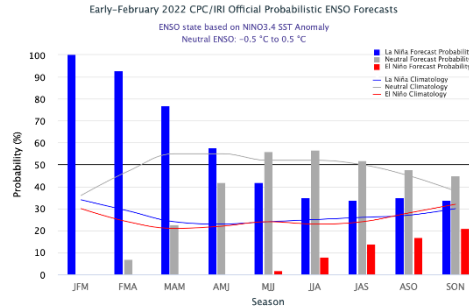
Indian Ocean Dipole (IOD)

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



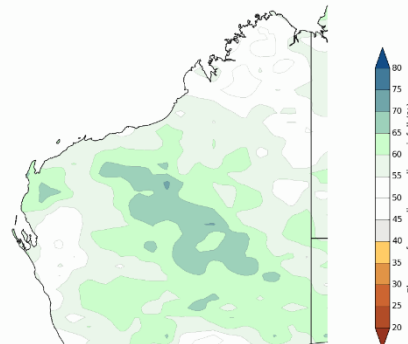
ENSO Alert Status:
La Niña at or past its peak, but its influence will persist until mid-autumn.



Australian BOM Rainfall Outlook

Issued 17 February 2022

Chance of exceeding the median rainfall for March to May 2022

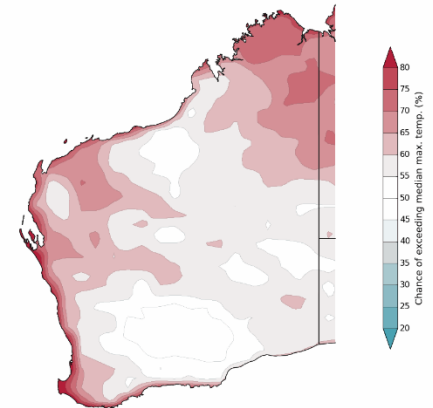


Rainfall is likely to be above median for large parts of the state, with average rainfall expected for other parts.

Australian BOM Temperature Outlook

Issued 17 February 2022

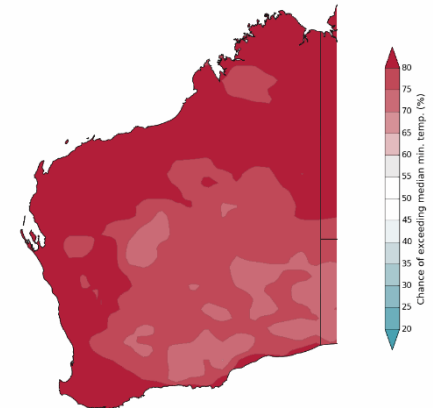
Chance of exceeding the median maximum temperature for March to May 2022



www.bom.gov.au/climate Model: ACCESS 5.2 Model run: 14/02/2022
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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



www.bom.gov.au/climate Model: ACCESS 5.2 Model run: 14/02/2022
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Night-time temperatures are very likely to be warmer than median across the whole state.