



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

# Medical Entomology Quarterly Report

## 2024 Health Region: July-September 2024



Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2024 - June 2025 #

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

MEDICAL ENTOMOLOGY REGION	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude Rate	Age Std Rate
KIMBERLEY	1	1	0	1	0	0	0	0	0	0	0	0	3	7.7	9.4
PILBARA	1	0	0	0	0	0	0	0	0	0	0	0	1	1.7	1.7
GASCOYNE	1	0	0	0	0	0	0	0	0	0	0	0	1	9.9	9.8
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	3	0	1	2	0	0	0	0	0	0	0	0	6	0.3	0.3
SW - PEEL	1	1	0	1	0	0	0	0	0	0	0	0	3	1.0	0.7
SW - LESCHENAULT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
SW - Geographe	1	2	0	1	0	0	0	0	0	0	0	0	4	6.5	5.4
SW - ELSEWHERE	0	1	0	0	0	0	0	0	0	0	0	0	1	1.9	2.0
SOUTH WEST(Total)	2	4	0	2	0	0	0	0	0	0	0	0	8	1.6	1.6
GREAT SOUTHERN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
GOLDFIELDS-ESPERANCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
INTERSTATE	1	0	0	0	0	0	0	0	0	0	0	0	1		
<b>WA TOTAL (does not include interstate)</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>		

\* Crude Rate per 100,000 and Age Standardised Rate per 100,000 compared to Australian Standard Population (to eliminate the effect of differences in population age structures between geographic areas)

# Ross River virus disease case data summary

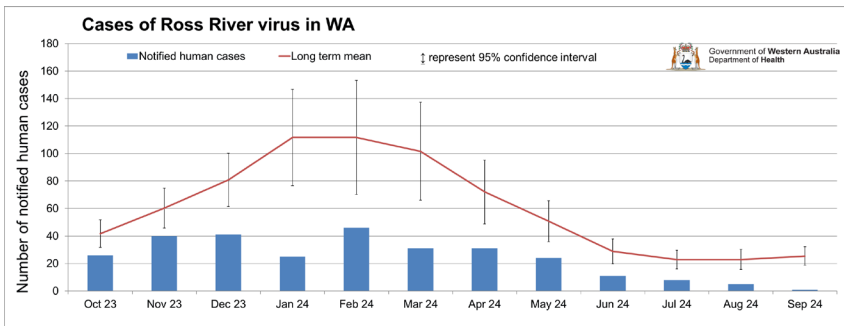
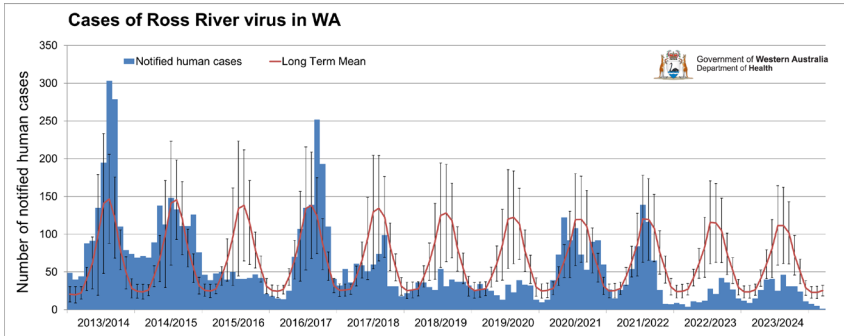
## Western Australia State Summary: Jul-Sept 2024

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 (ESD) collected by Population Health Units (PHUs) and local governments (LGs) (Note: only locations with notified cases of disease are shown in tables and figures).

Data current as at 28 October 2024.

- In this quarter, **14 RRV cases were notified across WA**, including 7 by lab only
- The long term mean for RRV cases is 731 per year, and 71 for this quarter
- For WA, the number of RRV cases was **significantly below the long term mean for all months** this quarter.
- The date and location of exposure will often be different to information provided on notification forms in 90% and 50% of the cases, respectively. Data is more accurate when follow up surveys are completed.
- **ESD/Follow-up Response Rate for RRV cases in this quarter: 21%#**

#calculated as number of follow up surveys received divided by total number of notified cases

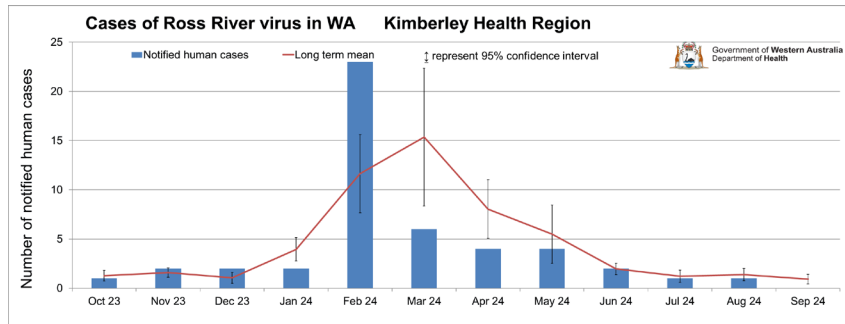
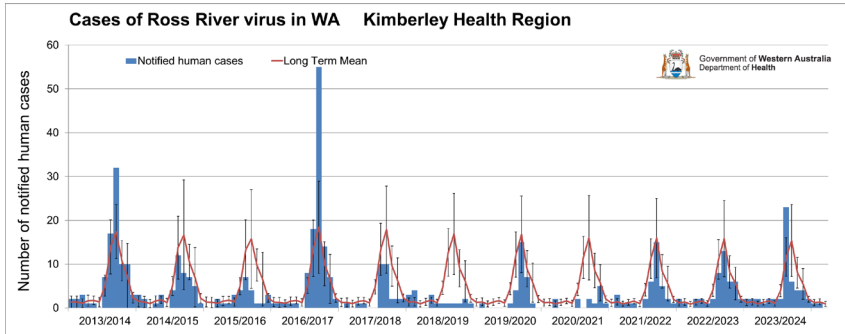


# Ross River virus disease case data summary Kimberley Health Region Jul – Sept 2024

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 (ESD) collected by Population Health Units (PHUs) and local governments (LGs) (Note: only locations with notified cases of disease are shown in tables and figures).

**Data current as at 28 October 2024.**

- For this region, **2 RRV cases were notified**, including 1 by lab only. **This is below the long term mean for all months this quarter**
- Long term mean for RRV cases is **54 per year**, and **about 4 cases for this quarter**
- No follow-up surveys available for this region



RRV Kimberley 2024	Jul	Aug	Sep	Total
<b>Kimberley</b>	<b>1</b>	<b>1</b>		<b>2</b>
<b>Broome (S)</b>		<b>1</b>		<b>1</b>
ROEBUCK		1		1
<b>Wyndham-East Kimberley (S)</b>	<b>1</b>			<b>1</b>
KUNUNURRA	1			1
<b>Total</b>	<b>1</b>	<b>1</b>		<b>2</b>



# Barmah Forest virus disease case data summary Jul - Sept 2024

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 (ESD) collected by Population Health Units (PHUs) and local governments (LGs) (Note: only locations with notified cases of disease are shown in tables and figures).

Data current as at 28 October 2024.

## Western Australia State Summary

- In this quarter, **3 BFV cases were notified across WA**, including 2 by lab only.
- For WA, **the long term mean for BFV cases is 29 per year, and 6 for this quarter** . The number of BFV cases was below the monthly mean.
- The date and location of exposure will often be different to information provided on notification forms in 90% and 50% of the cases, respectively. Data is more accurate when follow up surveys are completed.
- **ESD/Follow-up Response Rate for RRV cases in this quarter: 0%#**

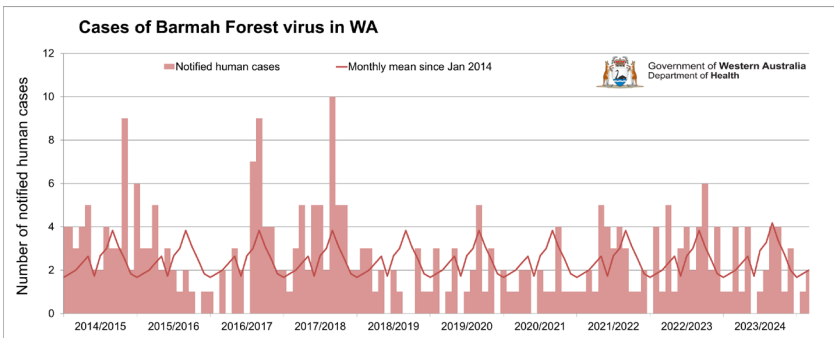
#calculated as number of follow up surveys received divided by total number of notified cases

## Kimberley Health Region

- There was **no BFV cases** for this quarter.
- For this region, the **long term mean for BFV cases is 7 per year and less than 2 for this quarter**.

Serologically confirmed doctor-notified and laboratory reported cases of Barmah Forest virus disease each month in WA, July 2024 - June 2025 #																
*Compiled by the Medical Entomology, WA Department of Health														*		
MEDICAL ENTOMOLOGY REGION	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude Rate	Age Std Rate	
KIMBERLEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
PILBARA	0	0	0	1	0	0	0	0	0	0	0	0	1	1.7	1.6	
GASCOYNE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
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	1	0	0	0	0	0	0	0	0	1	0.1	0.0	
SW - PEEL	0	0	1	1	0	0	0	0	0	0	0	0	2	0.7	0.7	
SW - LESCHENAULT	0	1	0	0	0	0	0	0	0	0	0	0	1	1.3	1.4	
SW - Geographic	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
SW - ELSEWHERE	0	0	1	0	0	0	0	0	0	0	0	0	1	1.9	1.8	
SOUTH WEST (Total)	0	1	2	1	0	0	0	0	0	0	0	0	4	0.8	0.0	
GREAT SOUTHERN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
GOLDFIELDS-ESPERANCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
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>0</b>	<b>1</b>	<b>2</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>0</b>	<b>6</b>			

\* Crude Rate per 100, 000 and Age Standardised Rate per 100, 000 compared to Australian Standard Population (to eliminate the effect of differences in population age structures between geographic areas)



# Climate Summary for July - September 2024

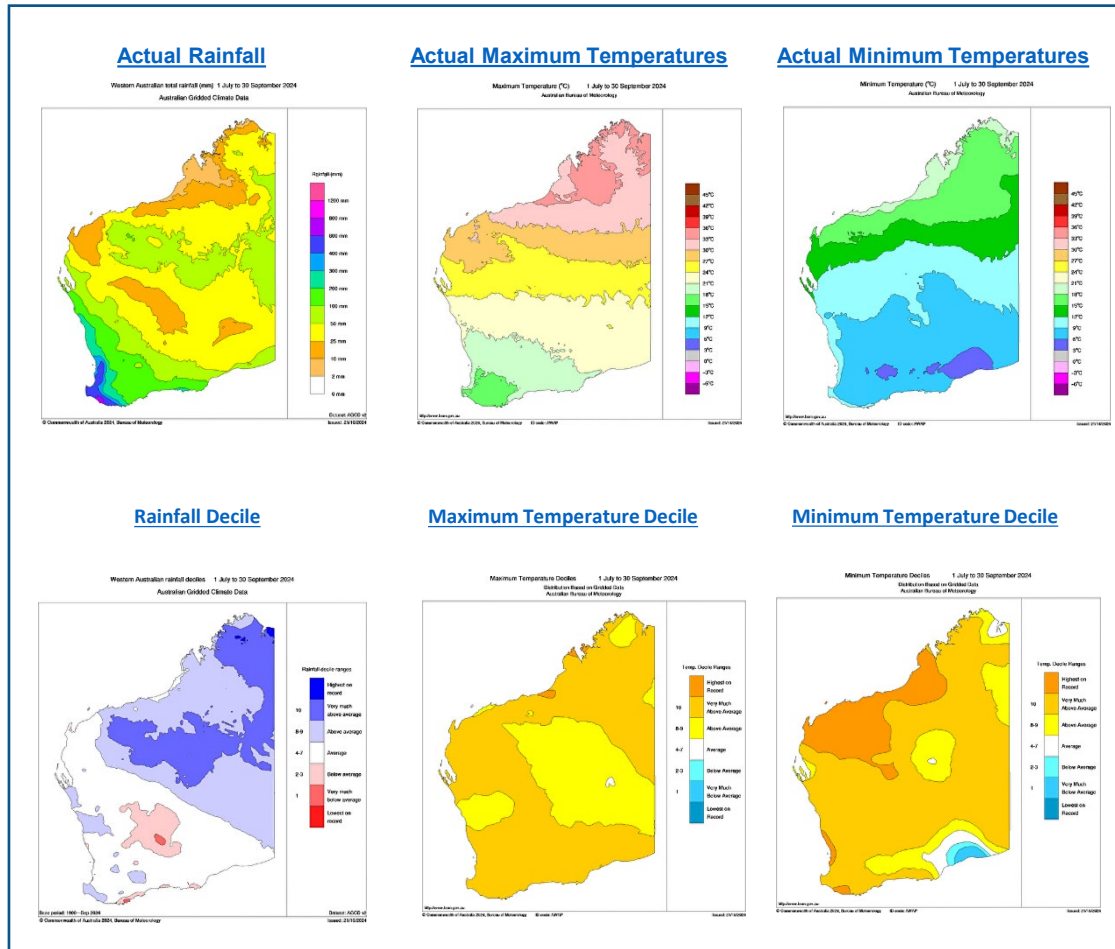
Links to the Climate Driver Update and Climate summaries for July to September 2024 can be found below:

[Climate Driver Update history](#)

[Climate summary for Western Australia in July 2024](#)

[Climate summary for Western Australia in August 2024](#)

[Climate summary for Western Australia in September 2024](#)



# Mosquito-borne Disease Risk Outlook

## Early detection of Flavivirus activity in northern WA

An unusually wet September across the Kimberley region has seen a very early start to the Flavivirus season. Our sentinel chicken surveillance system has detected activity in Derby and Wyndham, with other sites across the Kimberley region expected to show activity in the next week or two. Consequently the Department has issued a media statement reminding travellers and residents to remain vigilant against mosquito bites.

Ross River virus activity has been very much below average through the spring months, which is surprising given the increase in mosquito activity throughout the South West. With the temperatures now increasing through much of the South West, mosquitoes will continue to be seen in high numbers and we should expect an increase in Ross River and Barmah Forest notifications from the region.

### Climate outlook for Western Australia for November 2024 to January 2025 Issued 31 October 2024

#### Descriptions of Major Climate Drivers in WA

Weather forecasts based on interactions between oceanic and atmospheric conditions.

**El Niño/ La Niña (ENSO Pacific Ocean)** mainly affects north and east of WA

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

**La Niña:** Typically 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)** mainly affects mid two thirds of WA.

**Positive IOD:** Typically associated with reduced winter/spring rainfall, warmer conditions in the south, and cooler in the north.

**Negative IOD:** Typically associated with wetter winter/spring, cooler days in the south, warmer in the north with increased chances of rainfall/flooding.

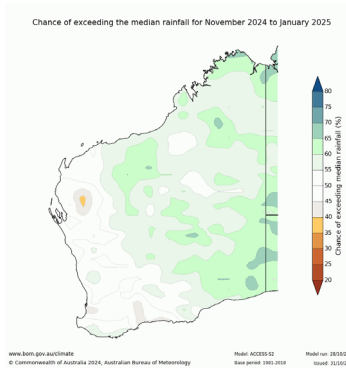
**Southern Annular Mode (SAM)** mainly affects south of WA, impact varies by season, trending towards a more positive phase in summer - contribution still under research .

**Positive SAM:** warmer and drier conditions. Boosted by La Nina conditions.

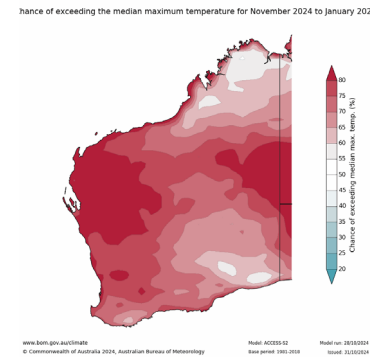
**Negative SAM:** cooler and wetter conditions.

For more info see [Australian Climate Influences](https://www.bom.gov.au/australia)

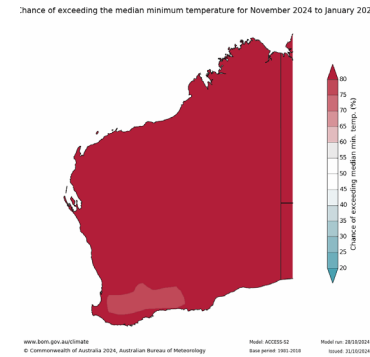
**Average to above average rainfall for most of WA**



**Warmer than average days for most of WA**



**Warmer than average nights for all of WA**



### Climate Driver Update

**ENSO and IOD remain neutral**

**IOD is currently neutral** and forecasted to remain neutral till at least the end of the year  
**SAM** is currently neutral