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

Medical Entomology Quarterly Report

2025 South West Health: January - March 2025

Ross River virus disease case data summary
Western Australia State Summary: Jan – Mar 2025

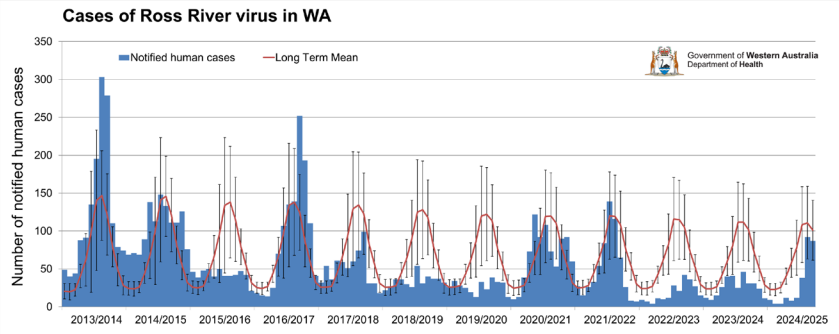
Data reflected in this summary of mosquito-borne disease is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data (ESD) collected by Population Health Units (PHUs) and local governments (LGs) (Note: only locations with notified cases of disease are shown in tables and figures).
Data current as at 19 May 2025.

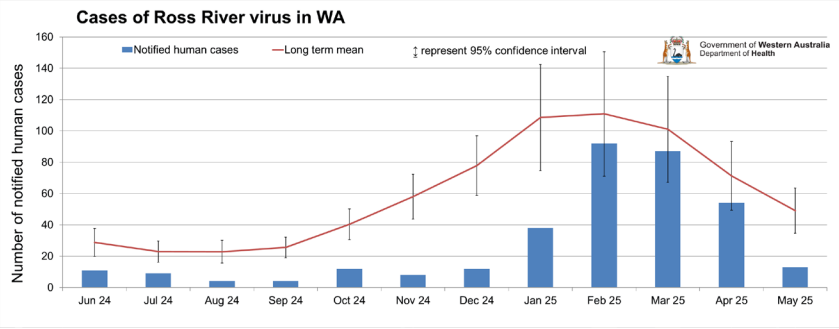
Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2024 - June 2025 #

#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	2	1	2	5	7	4	0	0	24	61.7	69.5
PILBARA	1	0	0	0	0	0	0	0	2	1	0	0	4	6.8	5.4
GASCOYNE	1	0	0	0	0	0	0	0	0	0	0	0	1	9.9	9.8
MIDWEST	0	0	0	3	2	0	1	4	0	0	1	0	11	16.9	19.2
WHEATBELT	0	0	1	0	1	1	4	1	0	1	0	0	9	12.8	14.2
METRO	4	0	1	3	1	4	10	32	35	23	7	0	120	6.2	6.0
SW - PEEL	1	0	2	2	2	2	7	24	24	8	2	0	74	24.9	23.1
SW - LESCHENAULT	0	0	0	0	0	1	1	12	7	9	2	0	32	40.0	36.4
SW - Geographe	1	2	0	1	0	0	2	3	4	1	0	0	14	22.6	23.2
SW - ELSEWHERE	0	1	0	0	0	3	10	7	3	2	0	0	26	50.1	52.3
SOUTH WEST(Total)	2	3	2	3	2	6	20	46	38	20	4	0	146	29.7	
GREAT SOUTHERN	0	0	0	0	0	0	0	2	5	5	1	0	13	20.2	21.9
GOLDFIELDS-ESPERANCE	0	0	0	2	0	0	1	2	0	0	0	0	5	8.8	9.4
WA UNDETERMINED	0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE	1	0	1	1	0	1	1	4	3	1	0	0	13		
WA TOTAL (does not include interstate)	**9**	**4**	**4**	**12**	**8**	**12**	**38**	**92**	**87**	**54**	**13**	**0**	**333**		

* 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)





- In this quarter, **217 RRV cases were notified across WA**, including 61 by lab only
- **The long term mean for RRV cases is 717 per year, and 263 for this quarter**
- For WA, the number of RRV cases was **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: 51%#**

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

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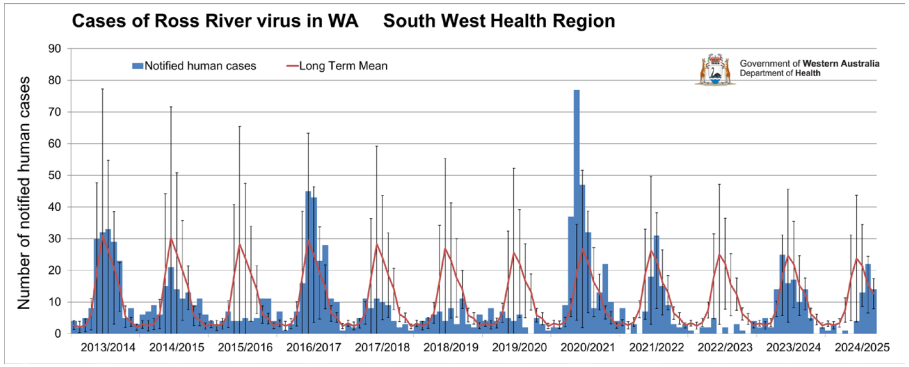
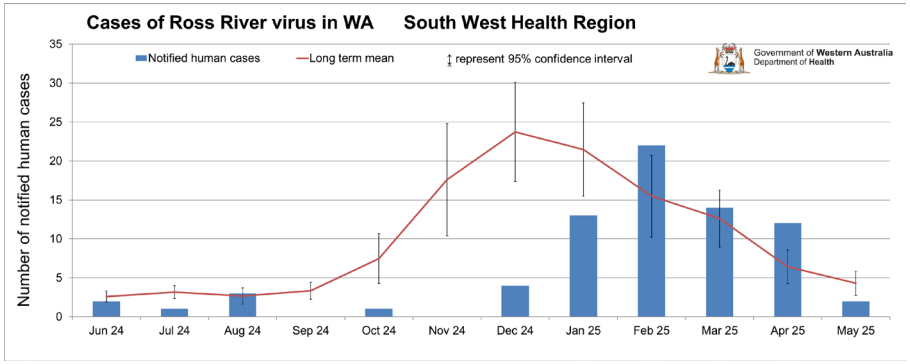
Ross River virus disease case data summary
South West Health Region Jan – Mar 2025

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 19 May 2025.

RRV South West Health	Jan	Feb	Mar	Total
SW - Elsewhere	**10**	**7**	**3**	**20**
Augusta-Margaret River (S)	**5**	**3**		**7**
AUGUSTA	1	1		2
GRACETOWN	1			1
MARGARET RIVER	2	1		3
MOLLOY ISLAND	1			1
BORANUP		1		1
Bridgetown-Greenbushes (S)	**1**			**1**
NORTH GREENBUSHES	1			1
Collie (S)		**2**		**2**
COLLIE		1		1
HARRIS RIVER		1		1
Donnybrook-Balingup (S)			**1**	**1**
BROOKHAMPTON			1	1
Manjimup (S)	**4**	**2**	**2**	**8**
WALPOLE	4	2	2	8
SW – Geographe	**2**	**3**	**4**	**9**
Capel (S)	**1**	**1**	**2**	**4**
CAPEL			1	1
DALYELLUP			1	1
GELORUP	1			1
STRATHAM		1		1
Busselton (C)	**1**	**2**	**2**	**5**
BUSSELTON	1	1		2
DUNSBOROUGH			1	1
VASSE		1		1
WEST BUSSELTON			1	1
SW - Leschenault	**1**	**12**	**7**	**20**
Bunbury (C)		**3**	**2**	**5**
BUNBURY			1	1
COLLEGE GROVE		1		1
PELICAN POINT		1	1	2
VITTORIA		1		1
Dardanup (S)		**1**	**3**	**4**
EATON		1	2	3
CROOKED BROOK			1	1
Harvey (S)	**1**	**8**	**2**	**11**
AUSTRALIND	1	5	2	8
HARVEY		1		1
LESCHENAULT		2		2
Total	**13**	**22**	**14**	**49**

- For this region, **49 RRV cases were notified**, including 10 by lab only. **This is within the long term mean for February and March** of this quarter
- Long term mean for RRV cases is **121 per year, and about 50 cases for this quarter**
- **24 follow-up surveys available** for this region





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Barmah Forest virus disease case data summary Jan – Mar 2025

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).

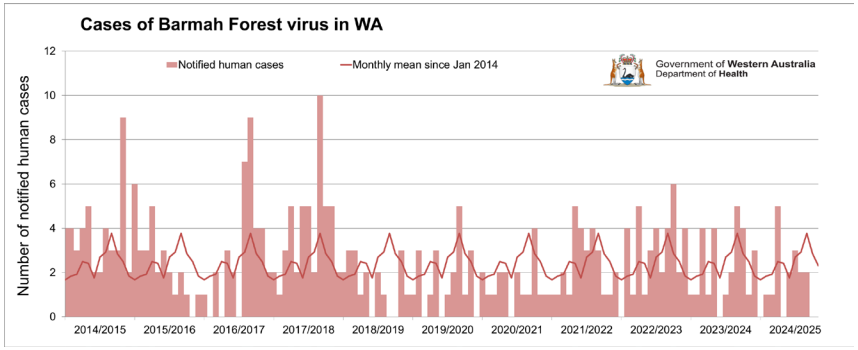
Data current as at 19 May 2025

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	1	0	0	0	0	0	2	3.4	3.3
GASCOYNE	0	0	0	0	0	1	0	0	0	0	0	0	1	9.9	9.5
MIDWEST	0	0	0	1	0	0	0	0	0	0	0	0	1	1.5	1.9
WHEATBELT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
METRO	0	0	0	2	0	1	2	0	0	0	0	0	5	0.3	0.2
SW - PEEL	0	0	0	1	0	0	0	1	0	0	0	0	2	0.7	0.5
SW - LESCHENAULT	0	1	0	0	0	0	0	0	1	0	0	0	2	2.5	2.9
SW - Geographe	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	1	0	0	0	2	3.9	3.7
SOUTH WEST(Total)	0	1	1	1	0	0	0	1	2	0	0	0	6	1.2	
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	1	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		
WA TOTAL (does not include interstate)	**0**	**1**	**1**	**5**	**0**	**2**	**3**	**2**	**2**	**0**	**0**	**0**	**16**		

* 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)



BFV South West Health	Jan	Feb	Mar	Total
SW - Elsewhere			1	1
Augusta-Margaret River (S)			1	1
COWARAMUP			1	1
SW - Leschenault			1	1
Harvey (S)			1	1
AUSTRALIND			1	1
Total			2	2

Western Australia State Summary

- In this quarter, **7 BFV cases were notified across WA,** including 3 by lab only.
- For WA, **the long term mean for BFV cases is 29 per year, and 9 for this quarter . The number of BFV cases was within 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 BFV cases in this quarter: 29%#**

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

South West Health Region

- **2 BFV cases were notified this quarter**. 1 was lab notified only.
- For this region, the **long term mean for BFV cases is 6 per year and about 2 for this quarter.**
- **No follow-up surveys received** from this region.

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Climate Summary for January to March 2025

Links to the Climate Driver Update and Climate summaries for January to March 2025 can be found below:

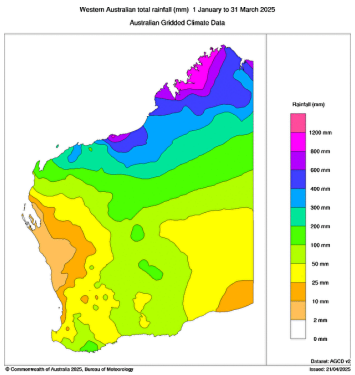
[Climate Driver Update history]

[Climate summary for Western Australia in January 2025]

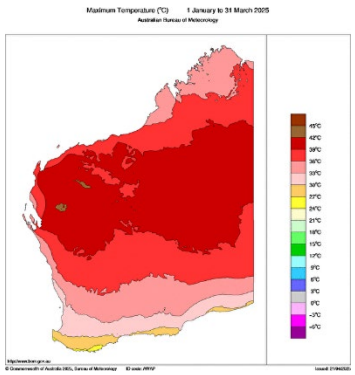
[Climate summary for Western Australia in February 2025]

[Climate summary for Western Australia in March 2025]

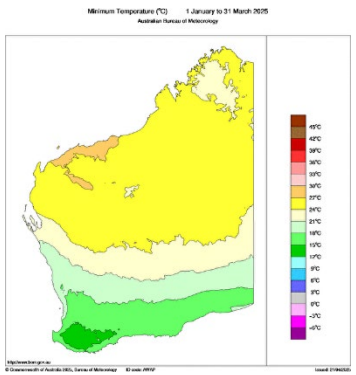
Actual Rainfall



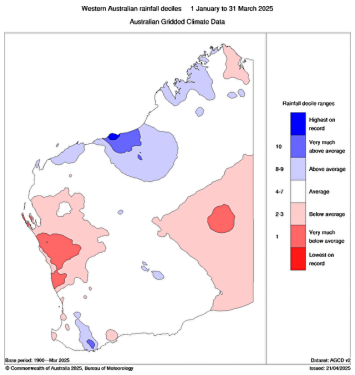
Actual Maximum Temperatures



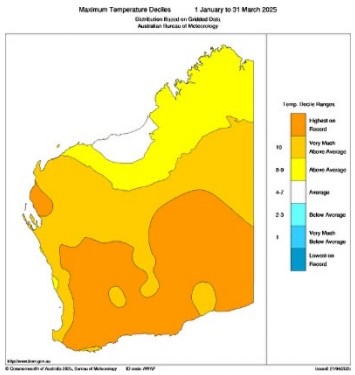
Actual Minimum Temperatures



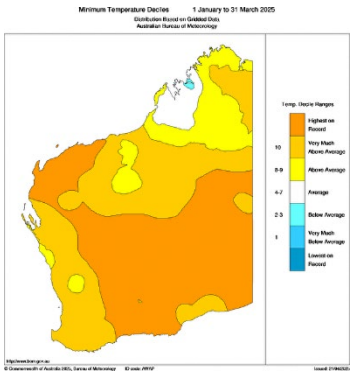
Rainfall Decile



Maximum Temperature Decile



Minimum Temperature Decile



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Mosquito-borne Disease Risk Outlook

Elevated Flavivirus activity during 2024/25, but a reprieve expected in the winter months

The northern Flavivirus season has been one of the longest on record, beginning in September 2024, with seroconversions in sentinel chickens still occurring through May 2025. At least 110 chickens have seroconverted to a Flavivirus in the Kimberley and Pilbara regions with a number of sites seeing their entire flock seroconvert. Three cases of MVE have been reported in the Pilbara region this season. With the wet season coming to an end Flavivirus activity is expected to decline.

Ross River virus activity has been below average through the 2024/25 season. Reported cases were well-below average from July 2024 to January 2025, and while we saw an increase in February and March 2025, cases remained just below the 5-year average during this period. Although rainfall is predicted to be average in the South West over winter, the cooler temperatures is expected to supress mosquito numbers, reducing the risk of Ross River and Barmah Forest viruses in the region.

Climate outlook for Western Australia for June 2025 to August 2025 Issued 15 May 2025

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.

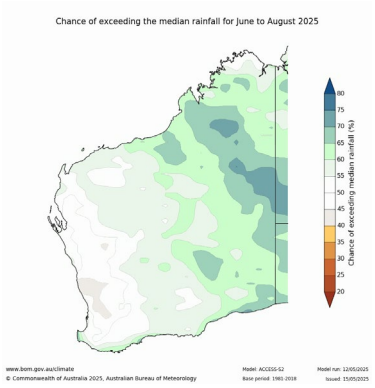
Southern Annular Mode (SAM) mainly affects south of WA, impact varies by season, trending towards a more positive phase in summer - contribution still under research .

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

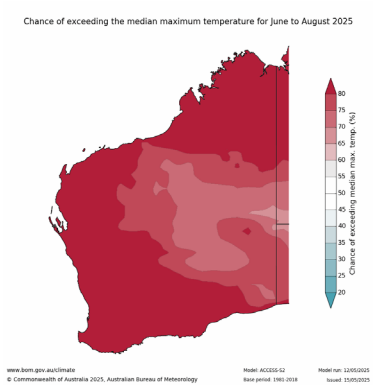
Negative SAM: cooler and wetter conditions.

For more info see Australian Climate Influences

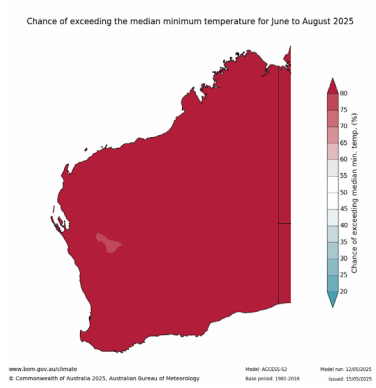
Likely to be above average rainfall for northern WA and typical range for western WA



Warmer than average days for most of WA



Warmer than average nights for all of WA



Southern hemisphere monitoring Issued 20 May 2025

El Niño–Southern Oscillation and Indian Ocean Dipole (IOD) are neutral; negative IOD possible in late winter to early spring

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