Data reflected in this summary of mosquito-borne disease in the Goldfields-Esperance Region 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)

There were two RRV cases notified by lab during this quarter. One of these was also notified by doctor. No follow up data are available. During 2018/19 there was a total of 10 cases which is significantly below the long term mean for all months.


RRV 2019	Apr	May	Jun	Total
Goldfields-Esperance	1		1	2
Kalgoorlie/Boulder (C)	1		1	2
BOULDER	1			1
KALGOORLIE			1	1
Total	1		1	2

Barmah Forest virus (BFV)

There were no BFV cases reported during this quarter or 2018/19 for this region. One case that was notified by lab only from Esperance in November 2018 has been removed from WANIDD. The long term monthly mean for the Goldfields is less than one case per month.
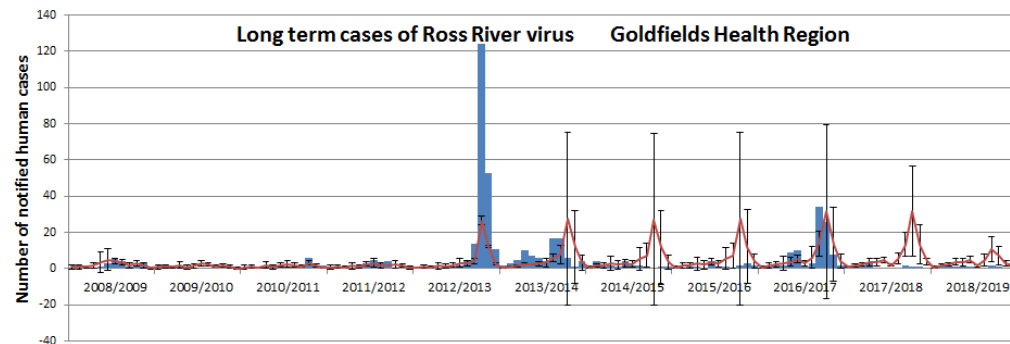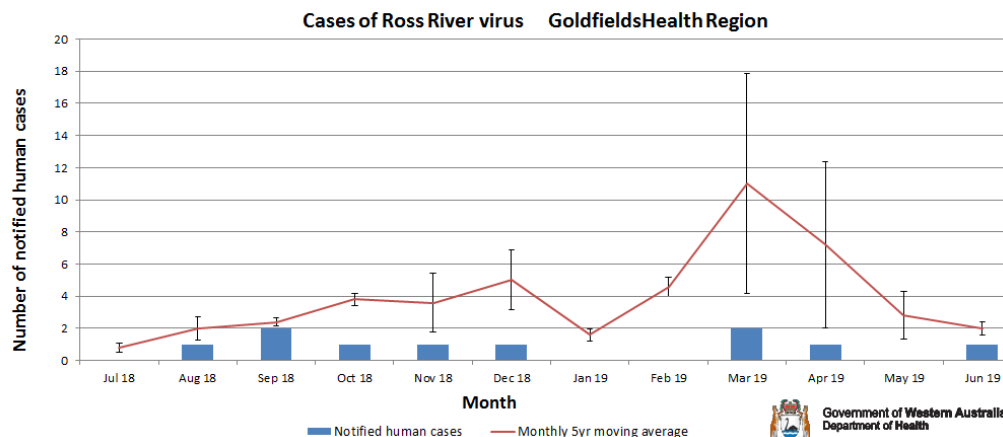
Data reflected in this summary of mosquito-borne disease in the East Metro Region is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and Local Governments. (Only locations with notified cases of disease are shown in tables and figures).

Relative Rainfall Mar – May (Autumn) 2019
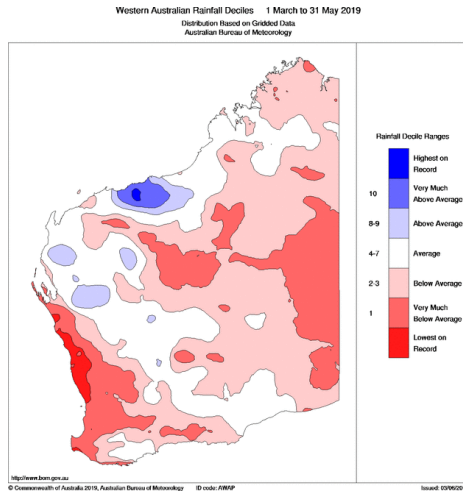
Relative Rainfall June 2019
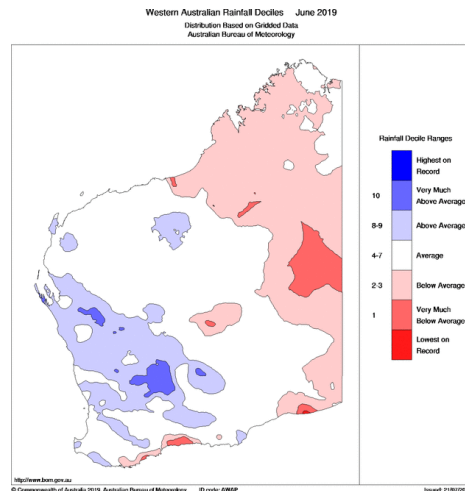
Serologically confirmed doctor-notified and laboratory reported cases of Ross River virus disease each month in WA, July 2018 - June 2019 #

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

REGION		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Crude	Age std
KIMBERLEY		3	4	0	0	3	0	1	1	1	1	2	1	17	47.1	58.1
PILBARA		0	1	3	0	0	1	0	0	0	3	3	3	14	22.8	17.2
GASCOYNE		1	0	0	0	0	0	0	0	0	0	0	0	1	10.4	11.2
MIDWEST		0	1	0	0	1	0	0	0	0	1	1	1	5	8.1	7.0
WHEATBELT		2	0	1	1	1	0	1	0	2	0	2	4	14	20.2	18.9
METRO		7	8	12	16	13	7	23	15	13	16	21	11	162	9.4	9.1
	PEEL	5	7	13	10	5	8	18	9	9	11	6	5	106	39.8	38.2
	LESCHENAULT	1	2	2	3	3	2	3	1	6	0	1	4	28	38.0	36.9
	GEOGRAPHE	2	2	3	2	3	2	2	2	4	1	0	2	25	44.6	44.2
	ELSEWHERE SW	0	0	0	1	1	0	2	0	1	1	0	0	6	12.7	11.3
SOUTHWEST		8	11	18	16	12	12	25	12	20	13	7	11	165	37.2	
GREAT SOUTHERN		1	1	0	2	0	2	3	1	2	0	1	1	14	23.1	20.9
GOLDFIELDS-ESPERANCE		0	1	2	1	1	2	0	0	2	1	0	1	11	43.2	44.4
WA UNDETERMINED		0	0	0	0	0	0	0	0	0	0	0	0	0		
INTERSTATE		0	0	1	0	2	1	2	2	0	2	0	1	11		
WA TOTAL (does not include interstate)		**22**	**27**	**36**	**36**	**31**	**24**	**53**	**29**	**40**	**35**	**37**	**33**	**403**		

1) Data current as at 23/07/2019 – table may vary from previous or future versions due to inclusion of additional enhanced surveillance data
Communicable Disease Control Directorate from participating pathology laboratories); Enhanced Surveillance Data (comprising case follow-ups from Environmental Health Officers; patient interviews; Doctor's
3) Month of onset and suburb/town of exposure determined from Enhanced Surveillance Data where available, and from Doctor's notifications or laboratory reports where not available
4) Data varies from official Western Australian Notifiable Infectious Diseases Database records due to inclusion of Enhanced Surveillance Data
suburb" - (e.g. City of Mandurah unknown)
6) Where a place of exposure occurs in a suburb that carries over 2 Local Governments and it is not clearly defined which local government it occurred in, the case has been entered in the Local Government where the largest portion of the suburb occurs

7) This information is the intellectual property of the Biological and Applied Environmental Health Hazards unit of the WA Department of Health and may not be used for any purpose without prior permission

El Niño conditions are associated with a decrease in rainfall and tidal activity.

La Niña brings wetter and warmer than normal weather which can increase mosquito breeding and mosquito borne diseases.
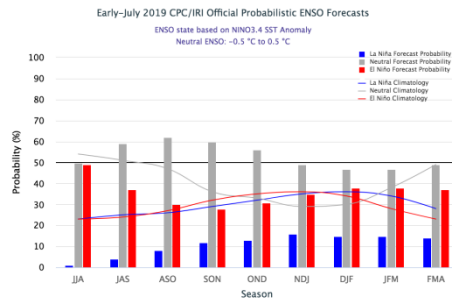
Positive Indian Ocean Dipole brings below average winter–spring rainfall, above average temperatures.

Australian Bureau of Meteorology (BOM) ENSO issued 9 July 2019
The El Niño–Southern Oscillation (ENSO) is currently neutral - neither El Niño nor La Niña. While the possibility of El Niño can't be completely ruled out for 2019, the tropical Pacific Ocean is expected to remain in an ENSO-neutral phase over the coming months meaning the ENSO Outlook remains at INACTIVE. Model outlooks indicate a positive Indian Ocean Dipole is likely to be the dominant climate driver for Australia's weather for much of the rest of 2019, meaning an increased likelihood of a drier than average winter–spring.

International Research Institute for Climate and society IRI ENSO Forecast issued 11 July 2019
The official CPC/IRI outlook, still with an El Niño advisory, calls for a 60% chance of ENSO-neutral by Jul-Sep, and neutral remains the most likely category through northern hemisphere fall and winter.

Early-July 2019 CPC/IRI Official Probabilistic ENSO Forecasts
ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C

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FIGHT the BITE
PROTECT YOURSELF from DISEASE-CARRYING MOSQUITOES
COVER UP. REPEL. CLEAN UP.

Australian BOM Climate Outlook issued 11 July 2019

Chance of exceeding the median rainfall
August to October 2019

A drier than average August to October is likely for large parts of the country, including the northern half of Australia, southwest WA. The month of August is likely to be drier for the far southwest of WA.

Chance of exceeding the median maximum temperature
August to October 2019
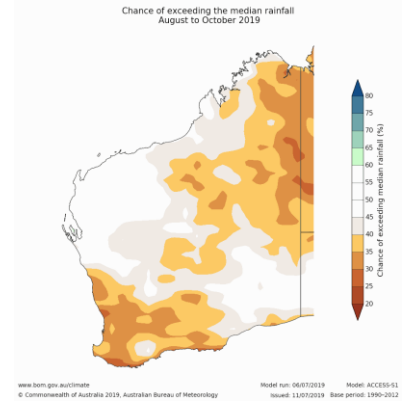
Warmer August to October days likely nationwide. Chances are very high (greater than 80%) for the northern half of the country and inland southern WA.

Chance of exceeding the median minimum temperature
August to October 2019
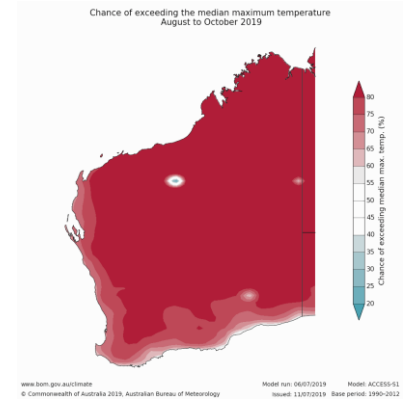
Nights are also likely to be warmer than average for much of Australia. Historical accuracy for August to October maximum temperatures is moderate to high for most of Australia, except for parts of the Pilbara in WA. Minimum temperature accuracy is moderate for most of Australia but patchy across the southeast quarter and western WA.