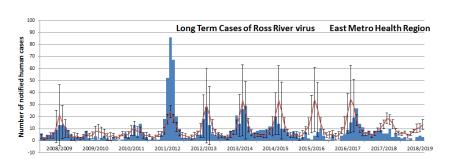


Data reflected in this summary of mosquito-borne disease in the East Metro Region is taken from the Western Australia Notifiable Infectious Disease Database (WANIDD) and includes enhanced surveillance data collected by Population Health Units and Local Governments. (Only locations with notified cases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

Ross River virus (RRV)

Between July to December 2018 there were eleven cases of RRV. These were all notified by laboratories but only four were notified by doctor. Three follow up surveys have been received. The number of RRV cases has been significantly lower than the 5 year moving mean for this region throughout 2018.

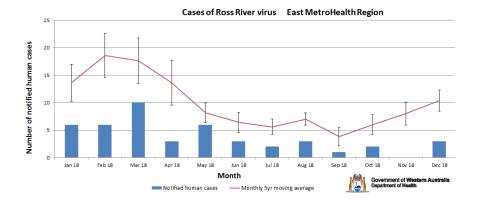
RRV 2018	Month						
	Jul	Aug	Sep	Oct	Nov	Dec	Total
Metro	2	3	1	2		3	11
Bayswater (C)		1				1	2
MAYLANDS						1	1
MORLEY		1					1
Kalamunda (S)				1			1
MAIDA VALE				1			1
Mundaring (S)	1	1		1		1	4
DARLINGTON				1			1
GLEN FORREST	1						1
GREENMOUNT		1				1	2
Stirling (C)		1					1
INGLEWOOD		1					1
Swan (C)	1		1			1	3
AVELEY			1				1
GIDGEGANNUP	1						1
STRATTON						1	1
Total	2	3	1	2		3	11



Fiscal Year

Notified human cases — Long Term Mear





Barmah Forest virus (BFV)

During these two quarters there were no cases of BFV reported in the East Metro region. The 5 year moving average is less than one case per month. The last BFV case notified in this region was in April 2018 from Lesmurdie.

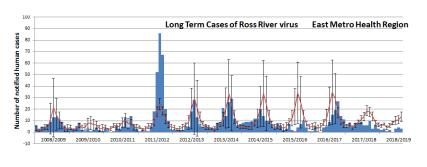


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Ross River virus (RRV)

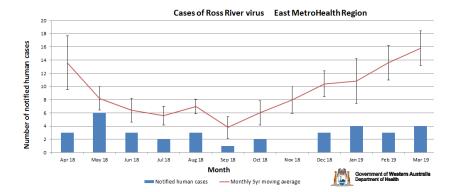
During this quarter there were also 11 cases of RRV. These were all notified by laboratory but only three cases were notified by doctor. No follow up surveys have been received. The number of RRV cases has been significantly lower than the 5 year moving mean for this region for the past 12 months.

RRV 2019	Month Jan	Feb	Mar	Total
Metro	4	3	4	11
Bayswater (C)	1	1		2
MAYLANDS		1		1
MORLEY	1			1
Kalamunda (S)		1	1	2
LESMURDIE		1	1	2
Mundaring (S)	1			1
HOVEA	1			1
Perth (C)			1	1
PERTH			1	1
Swan (C)	2	1	2	5
BULLSBROOK	1		1	2
CAVERSHAM		1		1
THE VINES			1	1
WOODBRIDGE	1			1
Total	4	3	4	11









Barmah Forest virus (BFV)

There was one case of BFV from Lesmurdie notified by laboratory only in February 2019. The 5 year moving average is less than one case per month. The last BFV case was in April 2018.



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

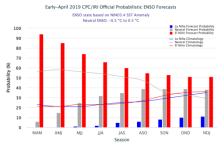
La Niña brings wetter and warmer-than-normal weather which can increase mosquitoes and mosquito borne diseases.

ENSO Wrap-Up issued by Australian BOM 30 April 2019 Outlooks indicate short-lived El Niño likely

The Bureau's ENSO Outlook remains at El Niño ALERT. This means the chance of El Niño developing in 2019 is approximately 70%. Although the surface of the tropical Pacific Ocean remains warmer than average, water below the surface of the ocean has been gradually cooling. A cooling of water at depth can lead to a cooling of the ocean surface, which may reduce the length of an event if one develops. Most climate models indicate surface warmth in the Pacific Ocean will remain at El Niño-like levels at least through May. The longer the ocean surface warmth remains, the more likely it is that the atmosphere will respond, and El Niño will develop. If El Niño does develop in May, it's likely to be short lived. El Niño typically brings drier than average conditions for eastern Australia during winter-spring, and warmer days across the southern two-thirds of the country. The Indian Ocean Dipole (IOD) is currently **neutral.** Climate outlooks indicate the IOD is likely to remain neutral for the remainder of autumn. However, by September half of the models predict a positive IOD will form, with the rest indicating neutral conditions will persist. A positive IOD typically means drier than average conditions for southern and central Australia during winter-spring.

IRI ENSO Forecast issued 19 April 2019 (International Research Institute for Climate and society)

ENSO Alert System Status: **El Niño Advisory** A weak El Niño is likely to continue through the Northern Hemisphere summer 2019 (65% chance) and possibly autumn (50-55% chance).

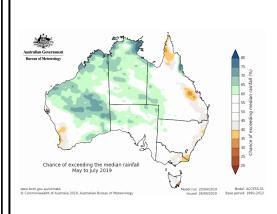


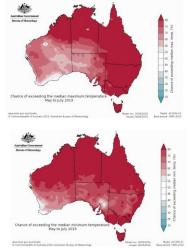
Climate outlook issued by Australian BOM 26 April 2019

Drier May in the east, wetter May–July for western and central Australia While May is likely to be drier, the three months from May to July show most of southern Australia have no strong tendency towards above or below average rainfall. A wetter than average three months is likely for large parts of northwestern and central Australia, but many of these areas typically receive little or no rainfall at this time of the year, meaning only a small amount of rainfall is needed to exceed the median.

Warmer than average days and nights likely for most of Australia

Warmer than average days and nights during May to July are very likely (greater than 80% chance) for large parts of northern Australia, with chances reducing in the southwest. For northern Australia, the chances of being warmer than average are very high; greater than 80%. However, the forecast for drier than average conditions could bring more cloud-free nights, increasing the risk of frost in susceptible areas.





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