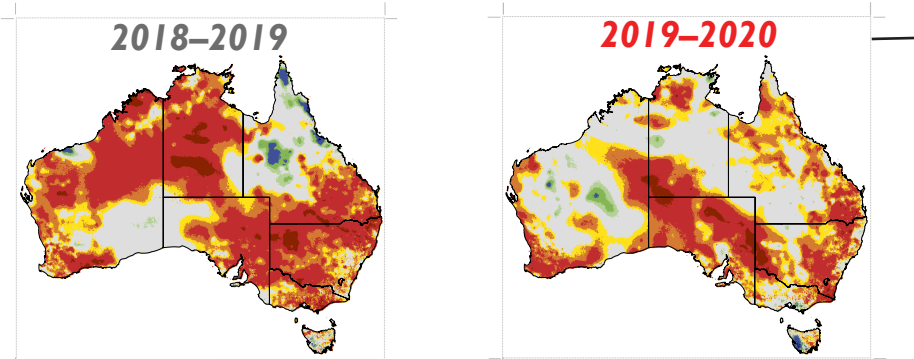


More of Australia's Variable Rainfall

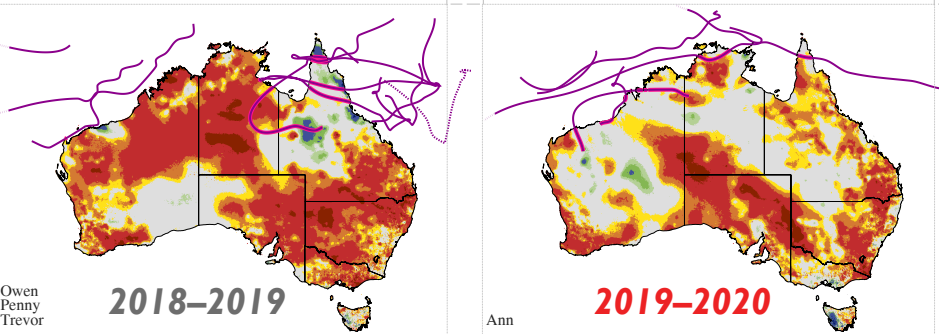
April to March Annual Australian Rainfall Relative To Historical Records 1890—extend your poster

- print this page using a colour printer
- cut out the extra maps and stick them on your poster,

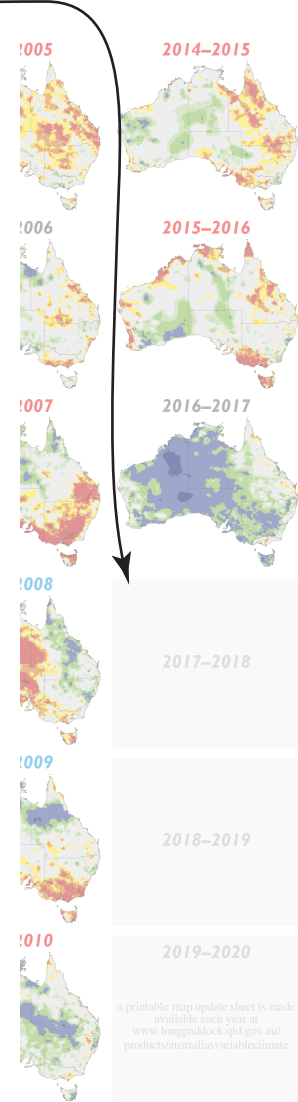
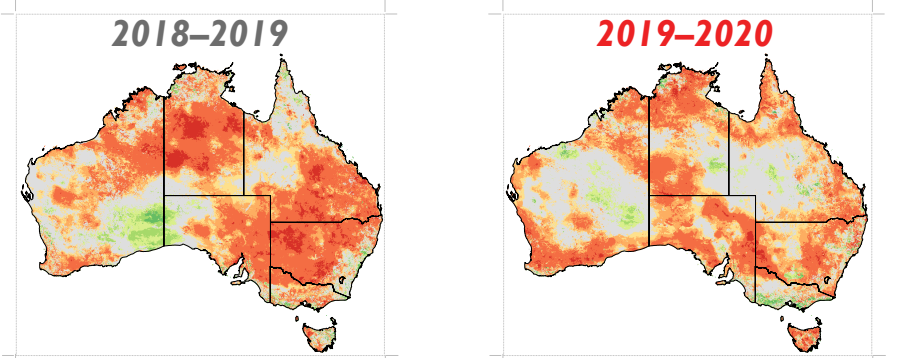
Australia's Variable Rainfall



Australia's Variable Rainfall with Tropical Cyclone Tracks



Australia's Modelled Pasture Growth



ENSO refers to the El Niño-Southern Oscillation (ENSO) which fluctuates between El Niño or Neutral' refers to neither El Niño nor La Niña. ENSO refers to the equatorial Pacific Ocean temperature anomalies relative to the long-term average. It is possible to have periods associated with 'ENSO'.

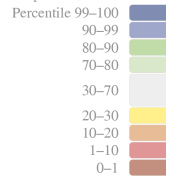
For this poster, 'ENSO Neutral' refers to neither El Niño nor La Niña.

*Monthly SOI values calculated using the Southern Oscillation Index (SOI) inclusive (monthly) values available at <http://www.bom.gov.au/climate/cu>

**NOAA: World Meteorological Organization (WMO) Consensus El Niño and La Niña In-Release, April 28, 2005 (available at <http://www.noaa.gov/news.noaa.gov/sto>)

Rainfall classification

Maps for each year show rain relative to historical records from 1890 expressed as a percentile. For 0-10 indicates that rainfall was the lowest ten per cent of rain annual periods, at that location.



Graph

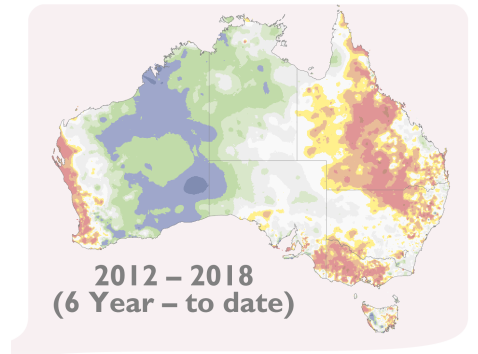
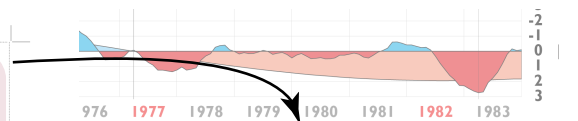
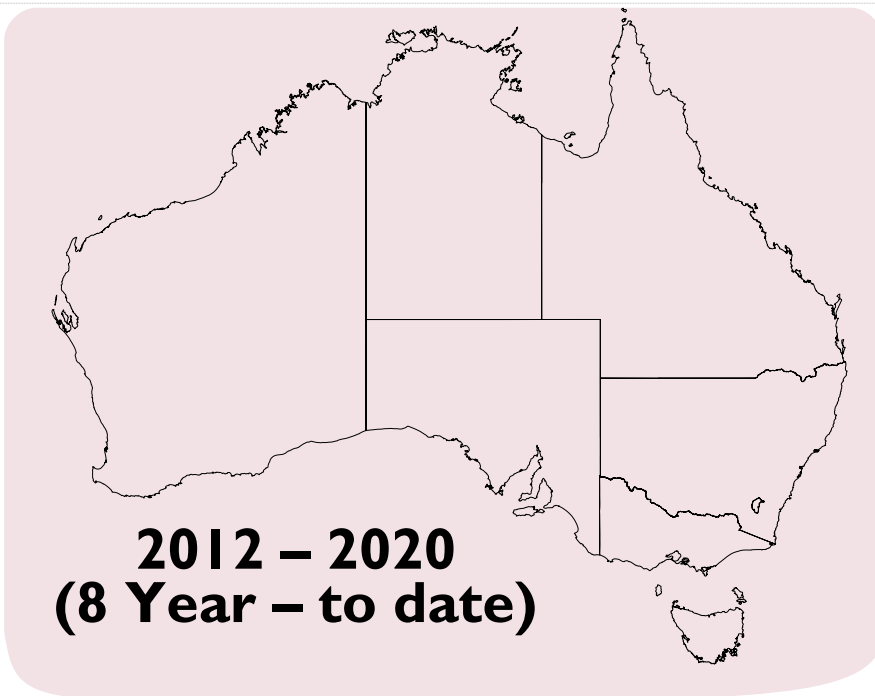
The bottom graph shows fluctuations in the six-month moving average of the Southern Oscillation Index (SOI). The SOI compares the pressure anomalies between Tahiti and Darwin. The graph also shows fluctuations in the Inter-decadal Pacific Oscillation (IPO), a slower moving fluctuation in Pacific Ocean sea surface temperature influences climate variability. The IPO values on the graph are the filtered time series using 11-year Chebychev filter provided by Office, updated to June 2016.

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Acknowledgments

- Rainfall data sourced from the Bureau of Meteorology (www.bom.gov.au)
- Percentile calculations by the Bureau of Meteorology (www.bom.gov.au)
- SOI data sourced from the Bureau of Meteorology (www.bom.gov.au)
- IPO values smoothed using a Chebychev filter provided by the Met Office. Reproduced with permission.

Queensland's extended wet and dry periods



The graph shows fluctuations in the six-month moving average of the Southern Oscillation Index (SOI). The SOI compares the difference in atmospheric pressure anomalies between Tahiti and Darwin. The graph also shows fluctuations in the Inter-decadal Pacific Oscillation (IPO), a slower moving fluctuation in Pacific Ocean sea surface temperature influences climate variability. The IPO values on the graph are the filtered time series using 11-year Chebychev filter provided by Andrew Coleman, UK Met Office (updated to February 2018).

For each period shown rainfall ranked against historical records from 1889 to 2018. The ranking is expressed as a percentile. For example, a percentile rank of 0-1 indicates that rainfall over the indicated period ranks within the lowest ten per cent of rainfall values recorded for that period length, at that location.

