

# Trends in Eyre Peninsula climate

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This document is a collation of graphs showing the trends in rainfall, temperature and extreme temperature events for the Bureau of Meteorology (BoM) high quality sites on the Eyre Peninsula.

This document is a supplement to the report on trends in the main part of the milestone report from Eyre Peninsula.

#### Seasonal climate trend maps from BoM

BoM – Climate – climate change – trend maps

http://www.bom.gov.au/climate/change/index.shtml#tabs=Tracker&tracker=trend-maps

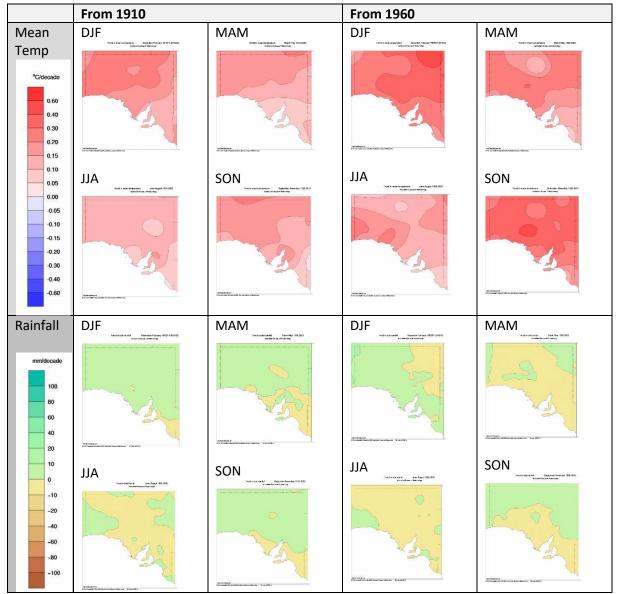


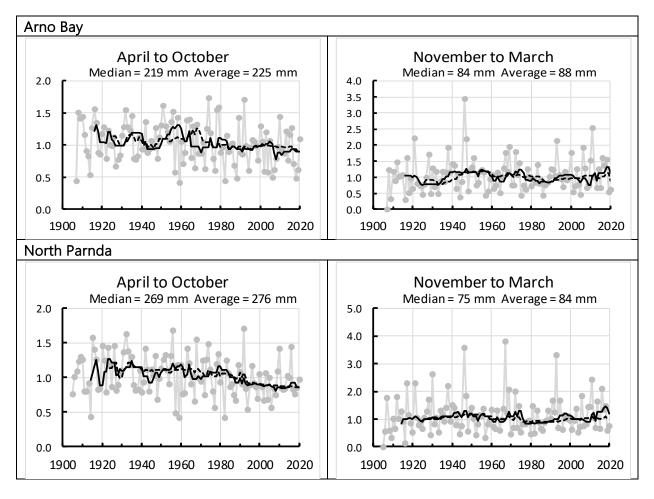
Figure 1. The BoM maps show a warming trend in all seasons. The rainfall trends show a wetting in summer and drying in all other seasons.

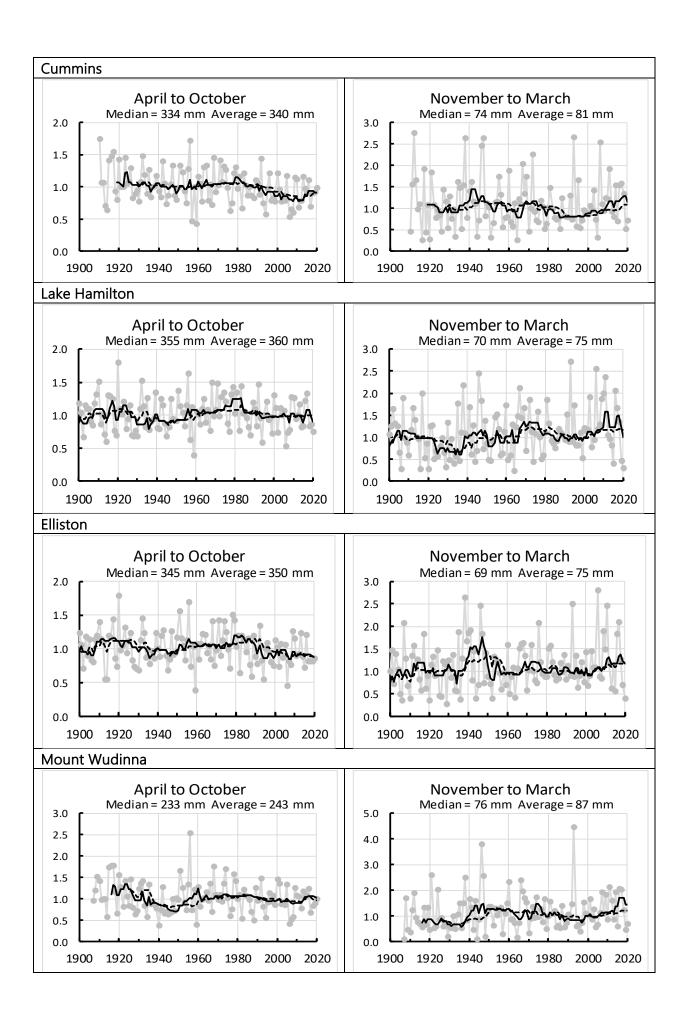
#### Rainfall at Bureau of Meteorology High quality rainfall stations

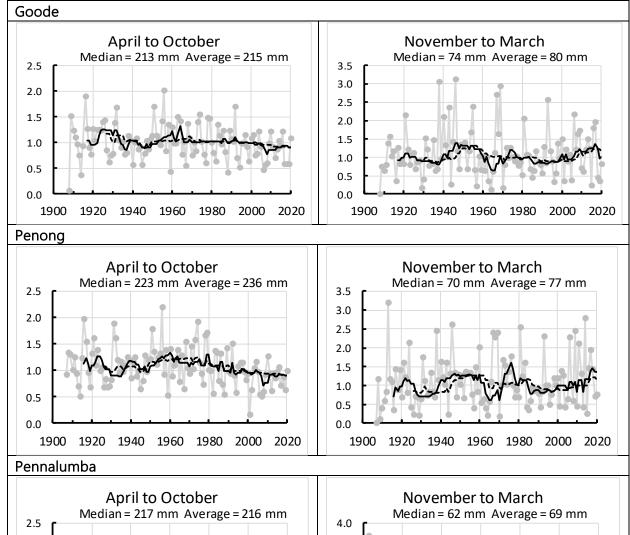
There are 9 current stations in or near the Eyre Peninsula cropping region. These are (anti-clockwise) from Arno Bay, North Parnda, Cummins, Lake Hamilton, Elliston, Mount Wudinna, Goode, Penong, Pennalumba.

All locations show a distinct seasonality of lower rainfall in summer and highest rainfall in winter; Autumn and spring rainfall are similar. Median and average November to March rain is relatively stable at 60 to 90 mm, in contrast to April to October rainfall from 210 mm in locations near or west of Ceduna to 350 mm at locations on lower Eyre Peninsula. There is considerable year-to-year variation in rainfall which overshadows any trend in rainfall. Long term trends hint at a possible decline in winter and spring rainfall, and in growing season (April to October) rainfall, with a possible wetting in summer. These trends are not apparent in all locations, nor have they been consistently apparent over the climate record, particularly in recent years to past decade.

Figure 1 Time series of rainfall for growing season (April to October) and non-growing season (November to March) at nine locations on Eyre peninsula. The Y axis is the ratio to the median. Annual (grey circles), 10 year moving average (black solid line) and 20 year moving average (black dashed line). The median and average are for the period of earliest record (typically 1910) to 2020. Note the change of scale on the Y axis.







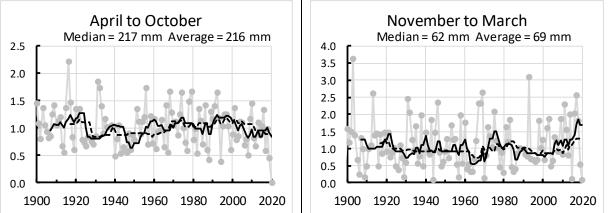
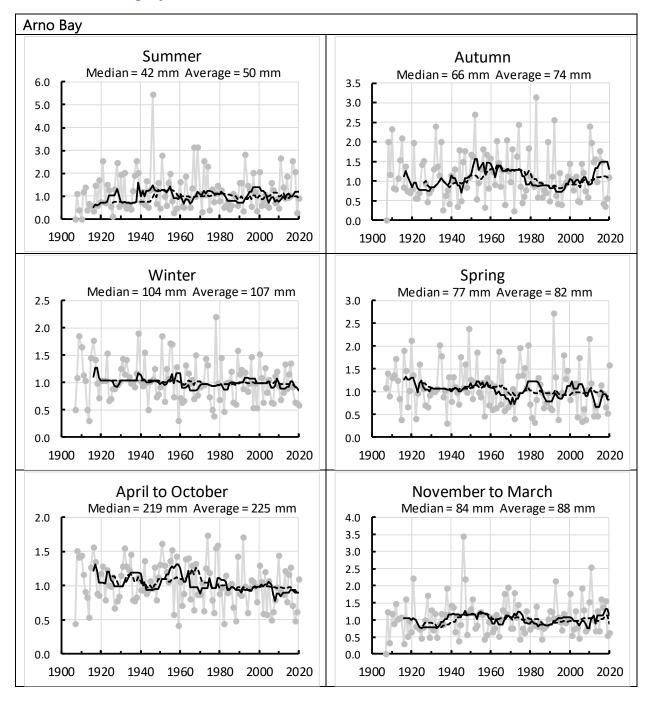
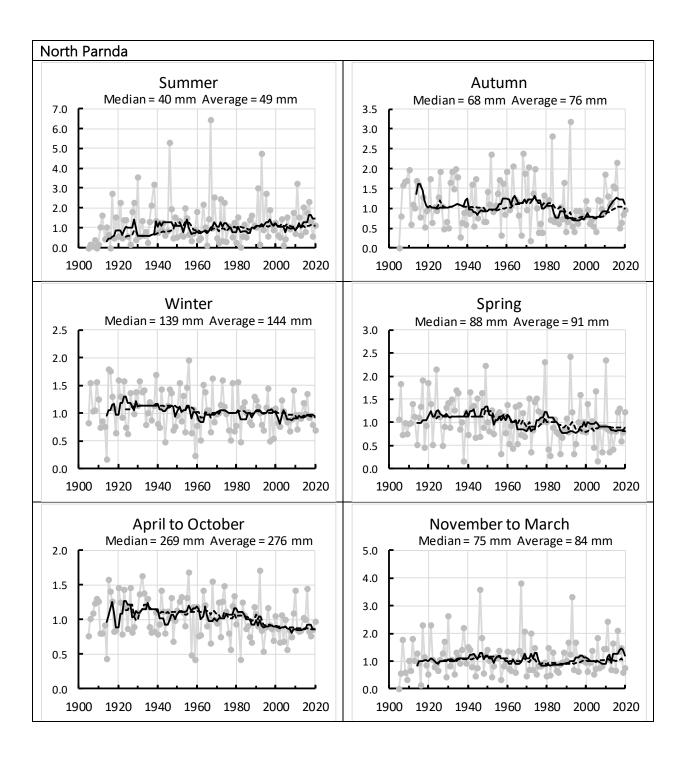
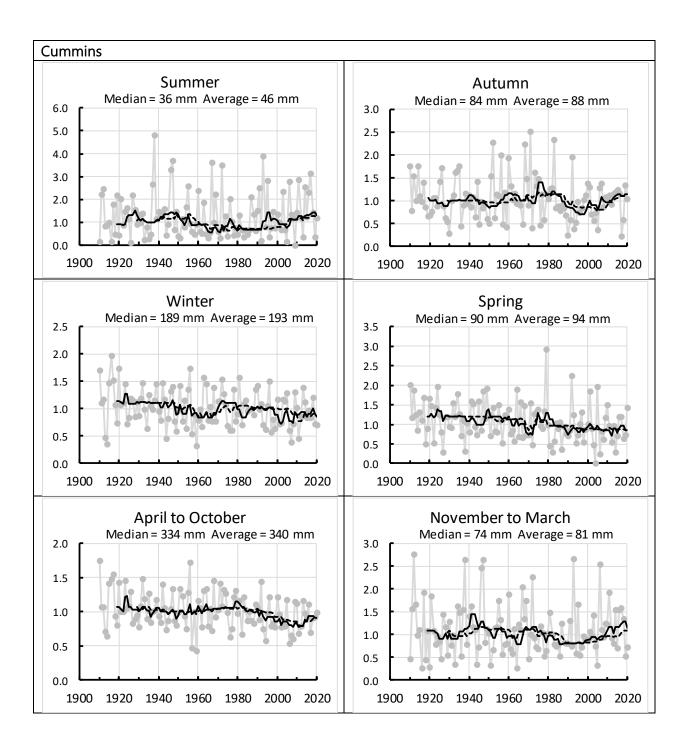
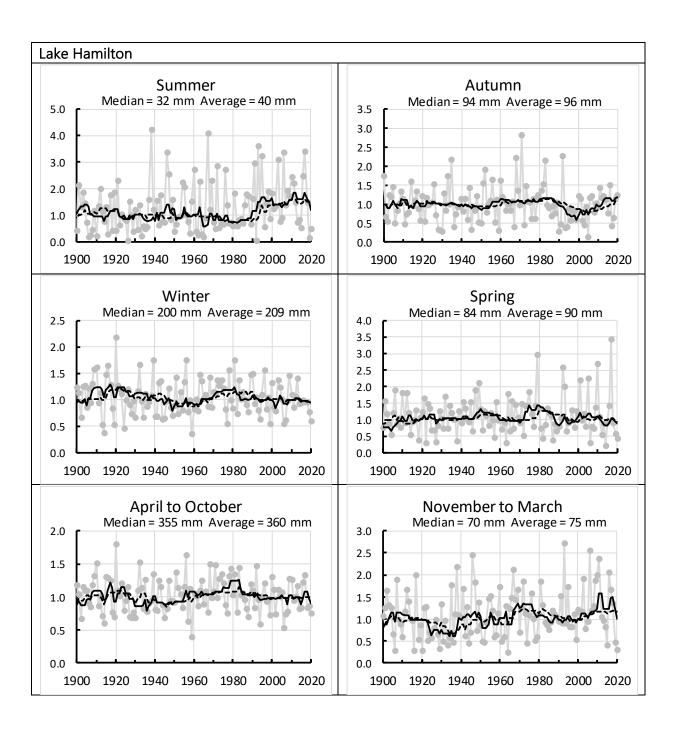


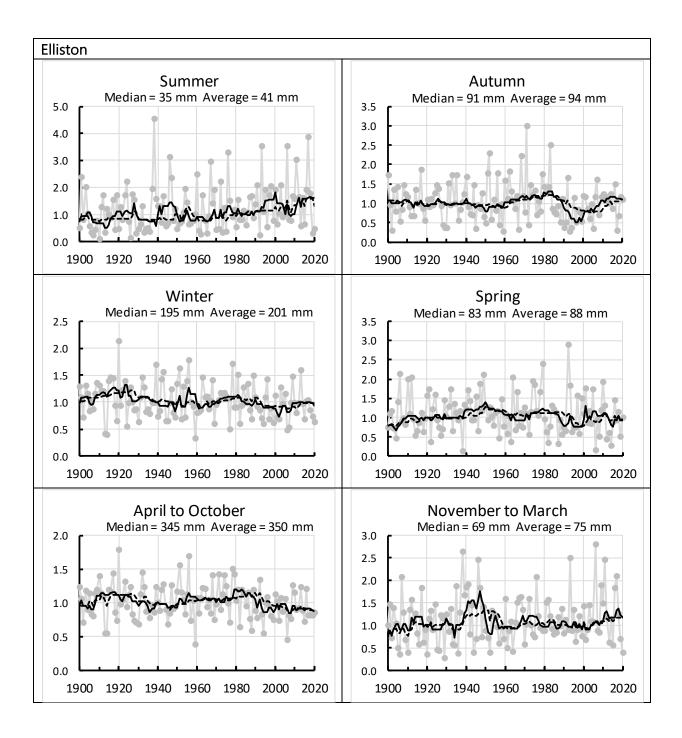
Figure 2 Time series of rainfall for summer (December to February), autumn (March to May), winter (June to August), spring (September to November), and growing season (April to October) and non-growing season (November to March) at nine locations on Eyre peninsula. The Y axis is the ratio to the median. Annual (grey circles), 10 year moving average (black solid line) and 20 year moving average (black dashed line). The median and average are for the period of earliest record (typically 1910) to 2020. Note the change of scale on the Y axis.

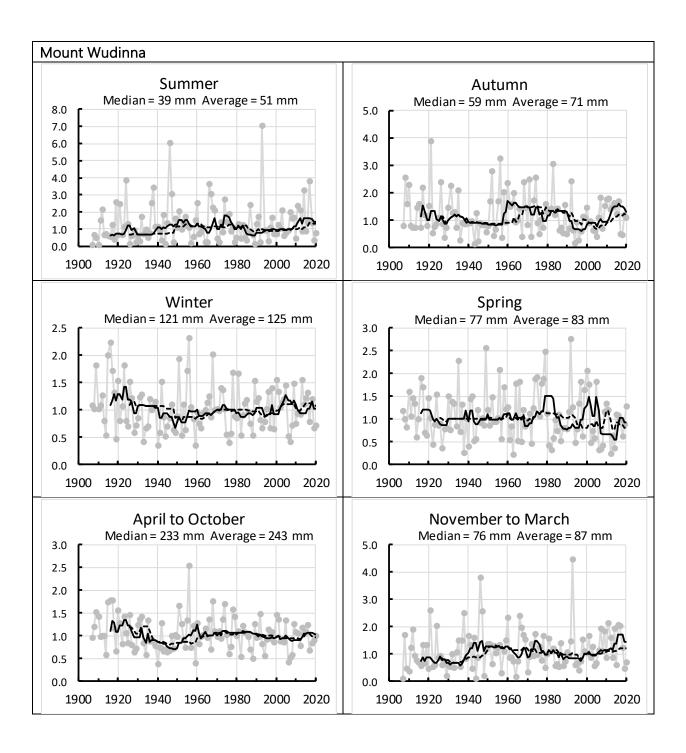


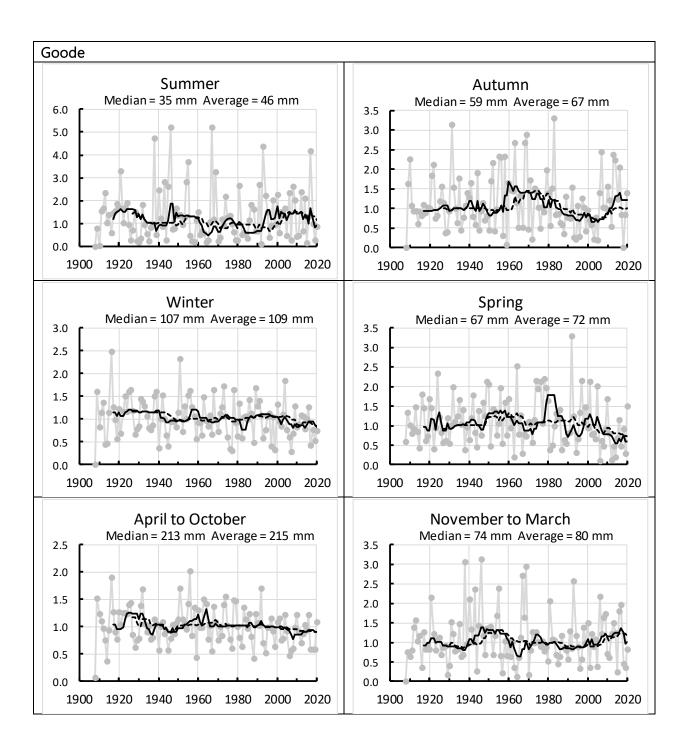


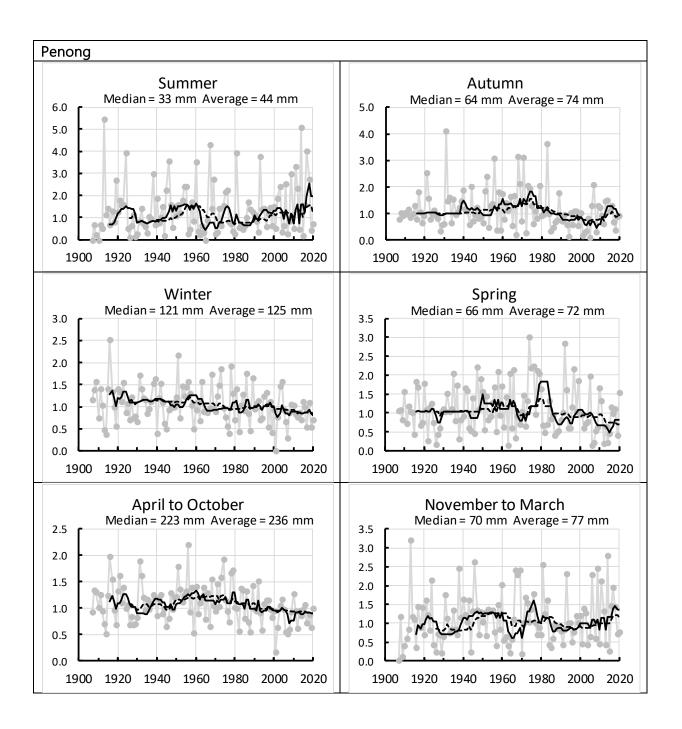


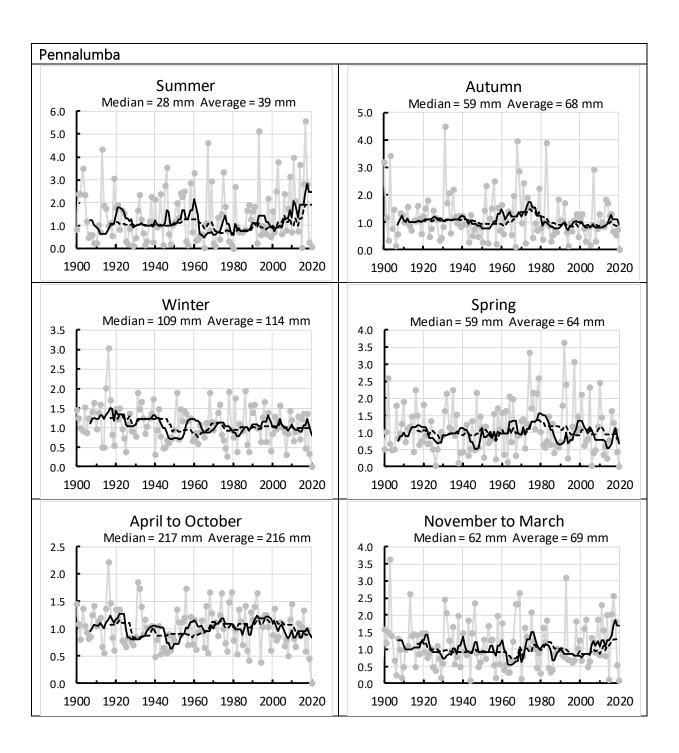






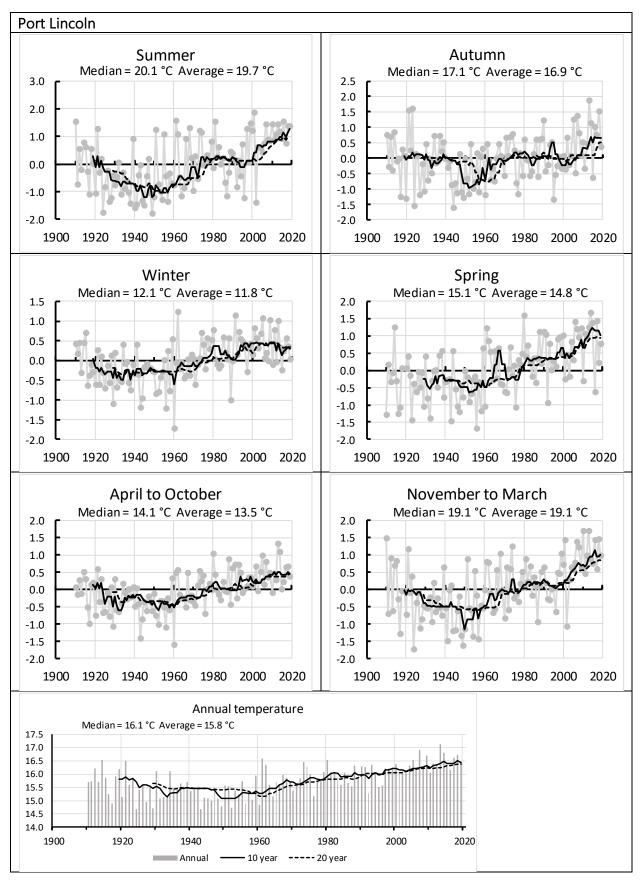


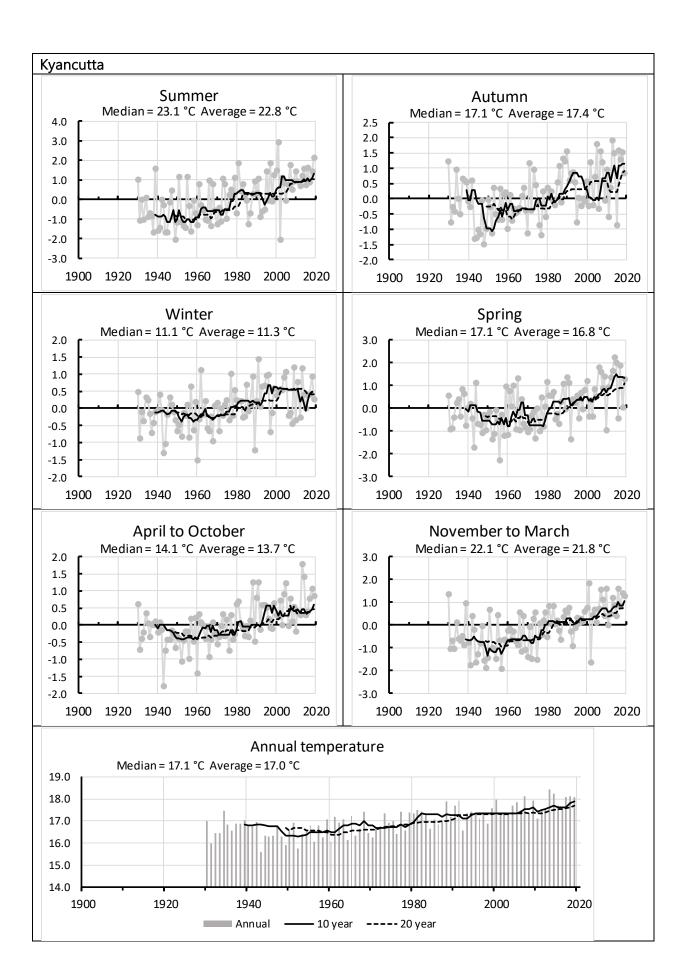


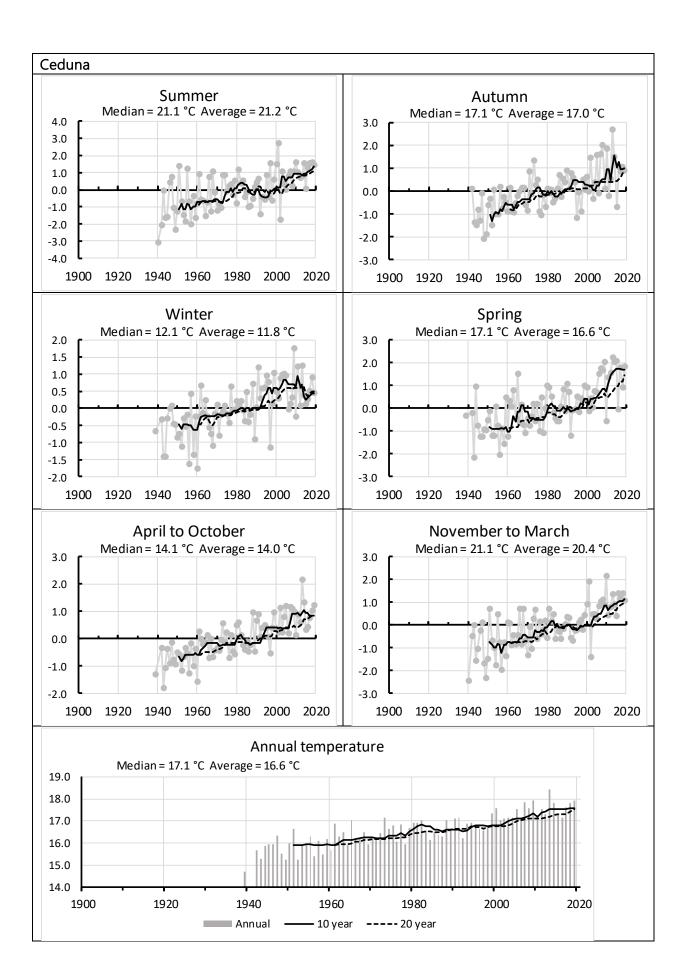


Trends in high quality temperature sites

Figure 4 High Quality Temperature sites. Y axis is Degree Celsius.







### Safe Flowering window.

Last frost before 1<sup>st</sup> Nov (from 1<sup>st</sup> April). First Heat after 1<sup>st</sup> July (until 31<sup>st</sup> November). Not every year has frost or heat.

