

# Climate

Use this section to find out more about the climate of the Campbells River sub-catchment. Learn about rainfall, drought, temperature, frosts, and the variability of our local climate.

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N.B Rockley is the only location in the sub- catchment where climate data is recorded and only rainfall data is available.

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#### How much rain?

An important measure of rainfall for an area is the **average annual rainfall**. This shows how much rain, on average, a place receives per year. The average annual rainfall for Rockley is 679 mm. How much rainfall an area receives is associated with factors such as altitude and local topography so the rainfall received by Rockley is only an indication of the rainfall received by the sub-catchment. It is likely that areas higher than Rockley receive more rainfall whilst lower areas receive less. Average annual rainfall gives a general indication of how much rainfall an area receives but it does not show the variation of rainfall that can occur between years or the time of year rain generally falls.

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#### When does it fall?

##### *Annual patterns*

Apart from the amount of rain that falls it is also important to know when it falls during the year and how reliable the rain will be.

The Campbells River sub-catchment lies in between the predominantly summer rainfall area of northern Australia and the winter rainfall areas of the south. For Rockley, the **seasonal distribution** of rain is, on average, slightly summer dominant (Table 1). The influence of each system shifts from year to year - so some years have more winter rain and others a predominant summer pattern. The seasonal distribution can also be influenced by location.

Table 1

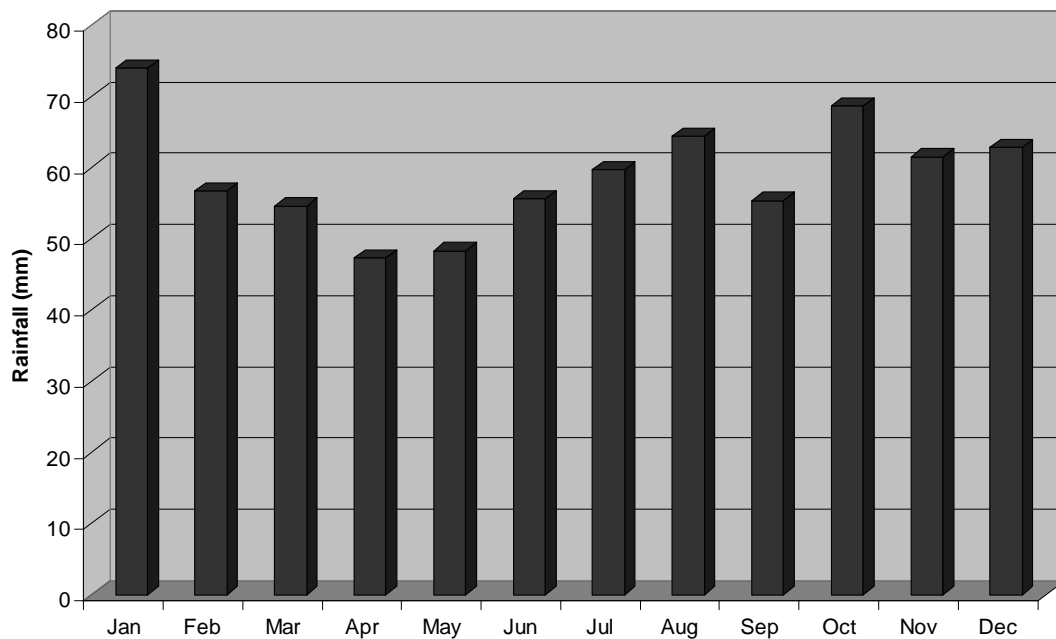
Summer/winter rainfall (mm) for areas of the Campbells River sub-catchment. (Bureau of Meteorology)

Location	Summer Rainfall	Winter Rainfall	Winter dominance*
Rockley	194	180	0.92

\* Winter dominance is ratio of the sums of the mean rainfall for the 3 winter months compared to the 3 summer ones. A ratio of 0.5 indicates summer dominance where as 1.5 indicates winter dominance.

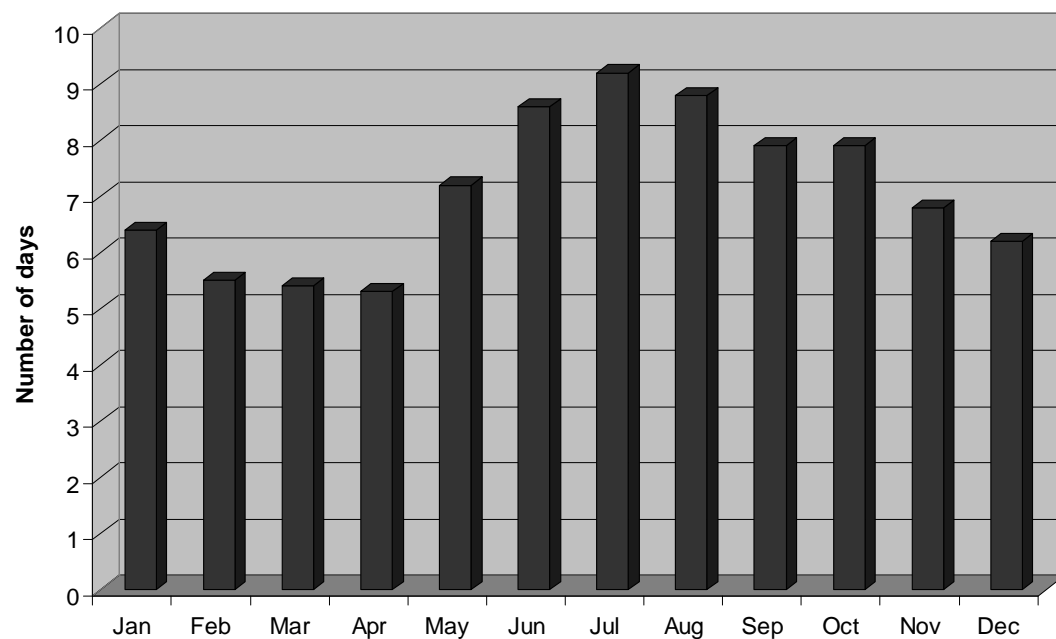
Rainfall information can be reduced further to show the **monthly distribution** of rain throughout the year. The monthly distribution for Rockley is shown below (figure 1) and shows that April and May are the driest months whereas January is the wettest.

**Figure 1**  
Annual distribution of rainfall (mm) by monthly rainfall means for Rockley. (Bureau of Meteorology)



The average number of raindays, another representation of distribution, indicates how many days during a period that rain falls in a locality. It can be measured per month, season or for a year and Rockley has 85 raindays per year. Raindays are also recorded on a monthly basis and are shown below in figure 2.

**Figure 2**  
Average number of raindays per month for Rockley. (Bureau of Meteorology)



## Drought

**Drought** is a widely used term to describe periods of low rainfall. More accurate terms are used to describe a drought and these are covered in the main **climate** chapter. It is important to remember that *the maintenance of ground cover is essential in times of drought*. This should become a major goal for landholders. With at least minimal ground cover and the good root mass that accompanies this, recovery of pastures is much quicker when adequate rains do return. Ground cover protects the farmer's major asset - his soil - from wind and water erosion both during and at the end of a drought. Compaction and loss of soil structure make the problem worse if ground cover is not maintained.

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## What influences our temperatures?

No temperature data exists for the Campbells River sub-catchment so the many variables (e.g. elevation, exposure, local topography) influence the temperature of an area cannot be demonstrated for this sub-catchment. An overview of these variables for the entire Central Tablelands Landcare district is available in the main climate section.

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## Conclusion

The climate within any sub-catchment is highly variable. Elevation is the main driver of these variations (e.g. the higher the elevation the colder the temperature and the higher the rainfall). Local variation in the landscape, however, can also affect climate (e.g. cold air drains into valleys and basins). Variations within a local landscape are quite noticeable on a frosty morning; the creek line will have a heavier frost where the top of the ridge 50 - 100 vertical metres higher will have only a light frost or no frost at all.

It is also important, when considering rainfall, to focus on the median value and *not* the mean value. The mean is the average of all records taken for an area whereas the median is *the value that occurred most frequently*.

Remember that the climate data provided in this section should be used only as a guide, unless you live at the specified locations. For a more detailed picture on the climate at your location you should consider keeping records.

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## References

- Bureau of Meteorology - Australia  
[www.bom.gov.au](http://www.bom.gov.au)