

6. Significant Events

January 2003 saw the persistence of the El Niño event that dominated Australian rainfall patterns in 2002. Drought intensified in eastern and southern Australia with occasional heatwave conditions. On 25th January, Melbourne registered a maximum of 44.1°C - its highest temperature since it recorded 45.6°C on "Black Friday", 13th January 1939 and only the fourth day of 44.0°C or higher on record. Adelaide's temperature also peaked at 44.1°C on the 25th making it the seventh time that 44.0°C has been reached there (last time 23rd Jan 1982). Record low January rainfall totals were widespread in east-central and southeast Queensland at sites with more than 100 years of records. In many instances the meagre rainfall was less than 5 mm.

The inevitable result of the dry and hot conditions, particularly in eastern Australia, was fire. Large and devastating bushfires occurred in Queensland, New South Wales, Australian Capital Territory, Victoria and Western Australia during the 2002/03 summer fire season. Tragically, four people were killed when fires entered the outskirts of Canberra on 18th January. Over three million hectares were burnt by the massive southeastern bushfires in the Australian Alps, that were started by lightning strikes from a line of dry storms on 8th January. The fires joined to form a complex stretching from the ACT through the New South Wales Alps and deep into the Victorian high country.



Eldorado fire near Beechworth, 21st January 2003. Photo courtesy of the Victorian Department of Sustainability and Environment (Natalie Ord).

The fires burnt for total of 59 days with smoke haze occasionally being blown over Melbourne reducing the visibility to less than three kilometres. This fire complex, which burned over 1.1 million hectares in Victoria alone, was the third largest fire known in southeastern Australia, after the December/January ("Black Friday") fires of 1939 and the February ("Black Thursday") fires of 1851.

In contrast, extremely wet and unseasonably cool conditions prevailed along and to the southwest of the Gulf of Carpentaria as a result of a very slow moving monsoon depression which remained in the region for some 16 days. In one week (ended 9th January) as much as 600 mm fell over the Roper River Catchment. Redbank Mine (near the NT/Qld border) broke the record for the highest total for any NT station in any month, with 1252 mm falling in January.

February brought more widespread relief. As the El Niño began to decline, good rain fell over much of the Australian continent, with above average to very much above average falls over the majority of SA, NSW, Queensland, NT and WA; the only dry state being Tasmania. Flash flooding occurred in several regions late in the month - Tamworth was particularly hard hit on 22nd February with a damage bill in the millions of dollars. On 26th February, St Lawrence (Qld) received 364 mm in one day, having only received 381 mm during all of 2002. The weather was also fairly wild in the west, with an outbreak of severe storms on 16th and 17th February producing hail to golf-ball size that smashed windows and dented vehicles from Mt Barker to Jerramungup in southern WA. In Melbourne, the year from March 2002 to February 2003 was the driest twelve month period since records commenced in 1855, with only 317 mm (less than half the average) registered in the city gauge. A noteworthy heatwave affected southwest WA in March: Perth hit 42.0°C on the 10th, its second hottest March day on record, following 38.1°C, 40.0°C and 40.8°C on the three preceding days.

With neutral conditions returning to the tropical Pacific by May, rainfall totals for the April to July period were average to slightly above average over much of the eastern half of the country, further easing rainfall deficits in many of the drought affected areas. On 1st April in Wilcannia, western NSW, the Darling River started to flow once again, spilling over the town weir in the afternoon. On the east coast, a disturbance associated with an upper level trough brought heavy rains from 11th to 16th May, causing flash flooding in many areas, with parts of Sydney's south (Sutherland shire) declared a natural disaster area. At Audley, 108 mm fell in just three hours.

The second quarter of 2003 also saw several meteorological phenomena of note. On 18th May many parts of central and western Victoria were blacked out by severe storms, one of which spawned a tornado that devastated parts of the Bendigo city suburbs of Eaglehawk and California Gully, destroying 10 houses and damaging a further 88. On 6th June, clouds of dust moved across Victoria, including Melbourne, a situation symptomatic of the slow recovery from severe drought conditions in southeastern Australia and a highly unusual event for a southern winter.

A. Drought slowly eases across eastern Australia; Queensland remains the worst affected state.

B. Learmonth: Only 37 mm of rain for the year (14% of average).

C. Redbank Mine: 1252 mm in January is a record for any month, for any NT location.

D. Extremely dry January with many long-standing records broken.

E. Melbourne: Slow moving thunderstorms bring over 100 mm in 2 hours to parts of the north and east suburbs early on 3rd December.

F. St Lawrence: 364 mm in the 24 hours to 9 am 26th February.

J. Occasional extreme heat during the second half of January. Temperatures in the mid-40s at times reaching the coast: 44.1°C at both Adelaide (J1) and Melbourne (J2) on the 25th and 45.3°C at Badgery's Creek (western Sydney, J3) on the 30th.

K. Perth: 42.0°C on 10th March was the second highest on record for the month in the city.

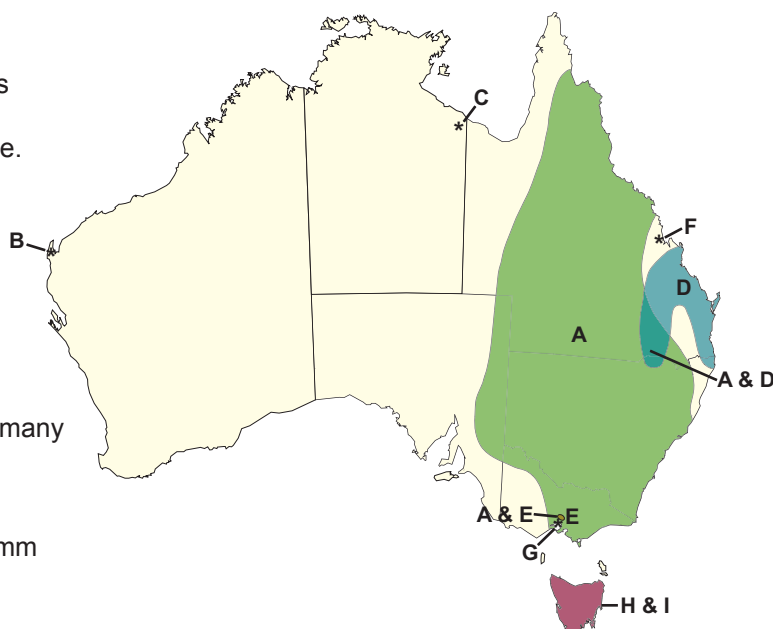
L. Another very warm year in parts of NSW and Queensland with annual maximum temperatures 1 to 2°C above average.

P. Fires in January and February burn a huge area of southeast Australia over 59 days.

P1. Canberra: Four people die as a firestorm engulfs parts of the western suburbs on 18th January.

Q. Tamworth: Flash floods on 22nd February cause damages in the millions of dollars.

R. Bendigo: Some suburbs devastated by a tornado on 18th May.



G. Melbourne: The driest 12-month period on record with just 317 mm from March 2002-February 2003.

H. Averaged state-wide, the wettest June-September period on record in Tasmania.

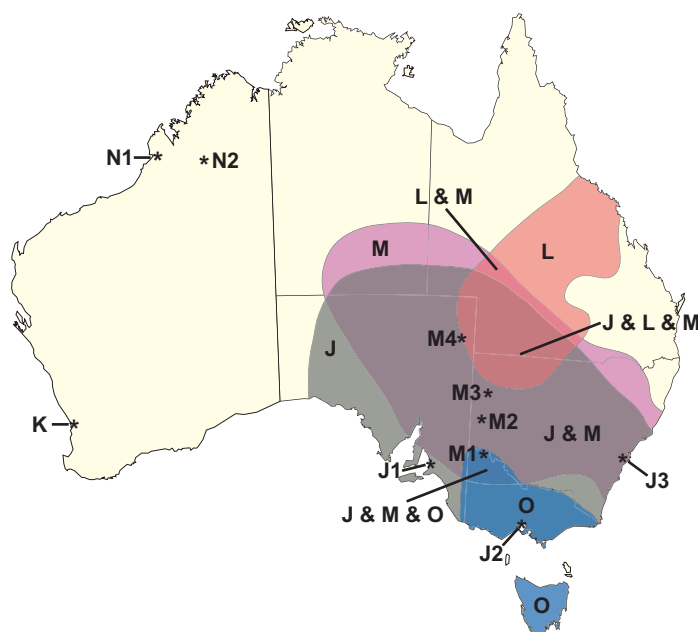
I. Very dry December quarter in Tasmania including driest November on record (state average).

M. Excessive early spring heat with temperatures from the mid-30s to low 40s on 22nd September. State records set: 37.4°C at Mildura (M1), 39.5°C at Menindee (M2) and White Cliffs (M3), and 41.4°C at Moomba (M4).

N1. West Roebuck: National September record maximum temperature of 43.1°C on the 27th.

N2. Fitzroy Crossing: 42.9°C on the 27th also exceeded the previous September record.

O. October state-average minimum temperatures were the lowest since at least 1950 in Victoria and Tasmania.



S. Severe cold outbreak on 22nd August brought widespread snow to the Great Southern district.

T. Widespread severe gales from 23rd to 25th August.

U. Major outbreak of severe storms on 25th and 26th October. Many reports of large, damaging hail including the deaths of many creatures at the Currumbin Wildlife Sanctuary (U1).

V. Dust storms generated by strong westerly winds on 28th and 29th October.

