

## Aotearoa New Zealand Climate Summary: May 2022

Issued: 3 June 2022

# Third-warmest May on record

Temperature	Temperatures were above average (0.51-1.20°C above average) or well above average (>1.20°C above average) for most of the country. It was a particularly warm May in parts of Southland, Otago, inland Canterbury and the West Coast, where mean temperatures were more than 2°C higher than average.
Rainfall	Rainfall was below normal (50-79% of normal) or well below normal (<50% of normal) in parts of Northland, Auckland, Gisborne, Hawke's Bay, the Wairarapa, Canterbury (south of Christchurch), Otago and southwestern Southland. Rainfall was above normal (120-149% of normal) or well above normal (>149% of normal) for northern parts of inland Canterbury and the West Coast, Manawatū-Whanganui, much of Taranaki, and inland portions of Bay of Plenty and Waikato.
Soil Moisture	At the end of May, drier than normal soils were prominent for Otago, eastern and inland Canterbury about and south of Christchurch, southern Wairarapa, northern Waikato, Auckland, and eastern and northern parts of Northland. Soils were wetter than normal for parts of Manawatū-Whanganui, Hawke's Bay and coastal Gisborne.

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**Overview Temperature** Rainfall May 2022 climate in the six main centres Highlights and extreme events

### **Overview**

May 2022 mean sea level air pressure was above normal over and to the east of Aotearoa New Zealand. Overall, this resulted in more northerly airflows than usual over much of the country – a pattern aided by continuing La Niña conditions. The weather was generally settled and warm for the first half of the month, although a heavy rainfall event in early May caused flooding in parts of the West Coast. During the second half of May, the weather turned more unsettled as several intense low pressure systems and associated cold fronts crossed New Zealand. These systems brought powerful winds, areas of heavy rain, and numerous thunderstorms, one of which produced a possible tornado in Levin that caused considerable damage to many structures (see Highlights and extreme events section for further details).

Temperatures were above average (0.51-1.20°C above average) or well above average (>1.20°C above average) in every region of New Zealand. It was the third-warmest May on record in New Zealand. The nationwide average temperature in May 2022 was 12.6°C. This is 1.8°C above the 1981-2010 May average from NIWA's seven station temperature series which begins in 1909. Of the four warmest Mays on record, all have occurred since 2011.

The very warm air temperatures were a result of more frequent northerly airflows, ongoing warmer than average sea surface temperatures (SSTs) around the country, and climate change. Monthly SST anomalies were the largest on record for May in the west of the North Island and the north, west, and east of the South Island (1.9°C, 2.0°C, 1.8°C, and 1.9°C above average respectively since records began in 1982).

May rainfall was below normal (50-79% of normal) or well below normal (<50% of normal) in parts of Northland, Auckland, Gisborne, Hawke's Bay, the Wairarapa, Canterbury (south of Christchurch), Otago, and southwestern Southland. It was particularly dry in Lauder, Ranfurly and Timaru, where just 12 mm, 13 mm and 14 mm of rainfall was recorded, respectively. In contrast, rainfall was above normal (120-149% of normal) or well above normal (>149% of normal) for northern parts of inland Canterbury and the West Coast, Manawatū-Whanganui, much of Taranaki, and inland portions of Bay of Plenty and Waikato. The wettest locations compared to normal were Westport and Levin, which recorded 213% and 206% of normal May rainfall, respectively.

Further Highlights:

- The highest temperature was 25.6°C, observed at Rangiora on 2 May, and Hastings on 19 May.
- The lowest temperature was -6.9°C, observed at Middlemarch on 28 May.
- The highest 1-day rainfall was 115 mm, recorded at Milford Sound on 7 May.
- The highest wind gust was 193 km/h, observed at Cape Foulwind on 20 May.
- Of the six main centres in May 2022, Auckland was the warmest, Tauranga was the sunniest, Dunedin was the driest, Christchurch was the coolest, Hamilton was the wettest and Wellington was the least sunny.
- Of the available, regularly reporting sunshine observation sites, the sunniest four locations in 2022 so far are Taranaki (1290 hours), Bay of Plenty (1203 hours), Greater Nelson (1194 hours) and Kāpiti Coast (1170 hours).

### For further information, please contact:

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### Temperature: A very warm month throughout Aotearoa

Higher than average temperatures prevailed throughout the country in May, with dozens of locations setting record or near-record high mean, mean daily maximum, and mean daily minimum temperatures. It was especially warm in Castlepoint where the mean temperature of 16.2°C was 3.5°C higher than average. This meant the mean temperature there was closer to that expected in December (16.4°C) compared to May (12.7°C).

Daytime maximum temperatures were notably high for May, and numerous inland South Island locations recorded average daily maximum temperatures at least 3°C higher the usual for the time of year. In Middlemarch (Otago), the average daily maximum temperature was 16.6°C, which is 4.3°C higher than normal for May.

Location	Mean	Departure from	Year	Comments
	air temp. (°C)	normal (°C)	records began	
High records or near-records				
Castlepoint	16.2	3.5	1972	Highest
Westport	13.8	2.6	1937	Highest
Hokitika	12.4	2.2	1866	Highest
Ōkārito	12.5	2.2	1982	Highest
Puysegur Point	12.6	2.4	1978	Highest
South West Cape	11.7	2.4	1991	Highest
Mokohinau	17.1	1.6	1994	2nd-highest
Leigh	17.5	2.1	1966	2nd-highest
Whangaparāoa	16.3	1.7	1982	2nd-highest
Whatawhata	14.0	1.8	1952	2nd-highest
Ngawi	15.2	2.1	1972	2nd-highest
Porirua	13.3	1.4	1968	2nd-highest
Arapito	13.2	2.0	1978	2nd-highest
Greymouth	13.2	2.4	1947	2nd-highest
Haast	12.2	2.1	1949	2nd-highest
Secretary Island	12.7	1.7	1985	2nd-highest
Nugget Point	10.5	1.9	1970	2nd-highest
Campbell Island	7.3	1.1	1991	2nd-highest
Whitianga	14.7	1.6	1962	3rd-highest
Tauranga	14.8	1.5	1913	3rd-highest
Te Puke	13.7	1.5	1973	3rd-highest
Pukekohe	14.6	1.4	1969	3rd-highest
Hamilton (Ruakura)	13.4	1.5	1906	3rd-highest
Hicks Bay	15.4	1.5	1969	3rd-highest
Wellington (Airport)	14.3	1.8	1962	3rd-highest
Hāwera	13.0	1.8	1977	3rd-highest
Tākaka	12.2	1.4	1978	3rd-highest
Franz Josef	11.6	1.9	1953	3rd-highest
Nelson	12.7	1.8	1862	3rd-highest
Akaroa	12.9	2.4	1978	3rd-highest
Le Bons Bay	12.0	1.7	1984	3rd-highest
Ranfurly	8.2	2.7	1897	3rd-highest
Middlemarch	9.3	2.7	2000	3rd-highest

#### Record<sup>1</sup> or near-record mean air temperatures for May were recorded at:

<sup>&</sup>lt;sup>1</sup> The rankings (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>.etc) in all Tables in this summary are relative to climate data from a *group* of nearby stations, some of which may no longer be operating. The current climate value is compared against all values from any member of the group, without any regard for homogeneity between one station's record, and another. This approach is used due to the practical limitations of performing homogeneity checks in real-time.

Te Anau   9.6   2.4   1963   3rd-highest     Roxburgh   10.4   2.7   1950   3rd-highest     Oban (Stewart Island)   10.9   2.3   1975   3rd-highest     Windsor   10.3   2.6   2000   Equal 3rd-highest     Kaitaia   16.2   1.3   1948   4th-highest     Auckland (Whenuapai)   14.6   1.3   1945   4th-highest     Rotorua   12.0   1.1   1964   4th-highest     Taupō   11.7   2.3   1949   4th-highest     Gisborne   14.0   1.7   1973   4th-highest     Waiouru   8.5   1.4   1962   4th-highest     Waiouru   8.5   1.4   1962   4th-highest     Kaikōura   10.8   2.3   1960   4th-highest     Kaikōura   13.0   1.9   1953   4th-highest     Kaikōura   13.0   1.9   1963   4th-highest     Kaikōura   10.5   1.4	Dunedin (Musselburgh)	11.5	2.2	1947	3rd-highest	
Oban (Stewart Island)   10.9   2.3   1975   3rd-highest     Windsor   10.3   2.6   2000   Equal 3rd-highest     Kaitaia   16.2   1.3   1948   4th-highest     Auckland (Whenuapai)   14.6   1.3   1945   4th-highest     Rotorua   12.0   1.1   1964   4th-highest     Taupō   11.7   2.3   1949   4th-highest     Port Taharoa   15.2   1.2   1973   4th-highest     Gisborne   14.0   1.7   1905   4th-highest     Waiouru   8.5   1.4   1962   4th-highest     Wateka   11.7   1.6   1956   4th-highest     Kaikōura   13.0   1.9   1963   4th-highest     Kaikōura   10.6   2.2   1974   4th-highest     Waiau   10.6   2.2   1974   4th-highest     Cheviot   10.5   1.4   1982   4th-highest     Mt Cook Village   8.4   2.	Te Anau	9.6	2.4	1963	3rd-highest	
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Auckland (Whenuapai)   14.6   1.3   1945   4th-highest     Rotorua   12.0   1.1   1964   4th-highest     Taupō   11.7   2.3   1949   4th-highest     Port Taharoa   15.2   1.2   1973   4th-highest     Gisborne   14.0   1.7   1905   4th-highest     Waiouru   8.5   1.4   1962   4th-highest     Waiouru   8.5   1.4   1962   4th-highest     Reefton   10.8   2.3   1960   4th-highest     Motueka   11.7   1.6   1956   4th-highest     Cape Campbell   13.5   1.4   1953   4th-highest     Kaikōura   13.0   1.9   1963   4th-highest     Waiau   10.6   2.2   1974   4th-highest     Cheviot   10.5   1.4   1982   4th-highest     Mt Cook Village   8.4   2.2   1929   4th-highest     Christchurch (Botanic Gardens)   11.5	Windsor	10.3	2.6	2000	Equal 3rd-highest	
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Low records or near-records	Queenstown	9.8	2.6	1871	4th-highest	
	Five Rivers	9.6	2.3	1982	4th-highest	
None observed	Low records or near-records					
	None observed					

### Record or near-record mean maximum air temperatures for May were recorded at:

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Matamata	19.1	2.2	1999	Highest
Whakatāne	19.2	1.7	1974	Highest
Hamilton (Ruakura)	19.2	2.3	1906	Highest
Hamilton (Airport)	18.7	1.9	1946	Highest
Te Kuiti	18.5	1.9	1959	Highest
Tūrangi	16.6	2.0	1968	Highest
New Plymouth	18.0	1.9	1944	Highest
Lower Retaruke	16.8	1.6	1966	Highest
Castlepoint	19.3	4.0	1972	Highest
Paraparaumu	17.5	2.1	1953	Highest
Wellington (Airport)	17.2	2.0	1962	Highest
Westport	17.1	2.1	1937	Highest
Greymouth	16.7	2.2	1947	Highest
Puysegur Point	14.7	2.3	1978	Highest
Mt Cook (Airport)	13.9	3.1	1929	Highest
Windsor	17.0	3.7	2000	Highest

Invercargill	15.1	2.9	1905	Highest
South West Cape	13.7	2.5	1991	Highest
Whangārei	19.9	1.5	1967	2nd-highest
Whangaparāoa	19.0	1.8	1982	2nd-highest
Whitianga	19.9	2.2	1962	2nd-highest
Rotorua	16.8	1.9	1964	2nd-highest
Taupō	17.0	2.9	1949	2nd-highest
Motu	15.7	2.5	1990	2nd-highest
Auckland (Māngere)	19.4	2.0	1950	2nd-highest
Whatawhata	19.4	2.0	1959	2nd-highest
Waikeria	19.0	2.2	1952	2nd-highest
Martinborough	19.0	2.1	1937	2nd-highest
-	18.0	2.5	1980	2nd-highest
Ngawi Porirua	18.3	2.0	1972	
				2nd-highest
Stratford	16.7	2.4	1960	2nd-highest
Hāwera	17.0	2.0	1977	2nd-highest
Tākaka	18.0	1.5	1978	2nd-highest
Hokitika	16.3	2.0	1866	2nd-highest
Ōkārito	16.4	1.7	1982	2nd-highest
Franz Josef	16.4	1.8	1953	2nd-highest
Haast	15.8	2.1	1949	2nd-highest
Secretary Island	15.2	1.6	1985	2nd-highest
Waiau	17.6	3.0	1974	2nd-highest
Wānaka	14.6	2.6	1955	2nd-highest
Ranfurly	14.9	3.8	1897	2nd-highest
Middlemarch	16.6	4.3	2000	2nd-highest
Cromwell	16.2	3.5	1949	2nd-highest
Clyde	15.4	2.8	1978	2nd-highest
Nugget Point	13.6	2.2	1970	2nd-highest
Mokohinau	18.6	1.4	1994	3rd-highest
Paeroa	19.0	1.6	1947	3rd-highest
Te Puke	18.7	1.5	1973	3rd-highest
Port Taharoa	18.5	1.2	1973	3rd-highest
Taumarunui	17.5	1.9	1947	3rd-highest
Mt Ruapehu (Chateau)	11.4	1.6	2000	3rd-highest
Waipawa	18.2	2.5	1945	3rd-highest
Palmerston North	17.6	2.0	1928	3rd-highest
Levin	17.5	1.9	1895	3rd-highest
Upper Hutt (Trentham)	17.1	1.7	1939	3rd-highest
Waiouru	13.1	1.9	1962	3rd-highest
Arapito	17.4	1.6	1978	3rd-highest
Milford Sound	13.9	1.7	1934	3rd-highest
Blenheim	18.1	2.1	1932	3rd-highest
Hanmer Forest	17.2	3.1	1906	3rd-highest
Waipara West	17.7	2.1	1973	3rd-highest
Akaroa	17.7	2.5	1978	3rd-highest
Lake Tekapo	14.3	3.3	1927	3rd-highest
Oamaru	15.6	2.2	1967	3rd-highest

Manapouri (Airport)	14.2	2.7	1963	3rd-highest
Queenstown	14.5	2.6	1871	3rd-highest
Five Rivers	14.9	2.9	1982	3rd-highest
Lauder	15.2	3.3	1924	3rd-highest
Alexandra	15.7	2.5	1929	3rd-highest
Tiwai Point	14.5	2.4	1970	3rd-highest
Oban (Stewart Island)	14.4	2.5	1975	3rd-highest
Hicks Bay	18.7	1.8	1969	Equal 3rd-highest
Leigh	20.5	2.5	1966	4th-highest
Auckland (Whenuapai)	19.1	1.4	1945	4th-highest
Tauranga	19.0	1.7	1913	4th-highest
Masterton	18.2	2.1	1906	4th-highest
Dannevirke	16.7	2.0	1951	4th-highest
Reefton	14.8	1.6	1960	4th-highest
Motueka	17.6	1.6	1956	4th-highest
Kaikōura	16.3	2.1	1963	4th-highest
Medbury	16.4	1.9	1927	4th-highest
Lincoln	16.5	2.2	1881	4th-highest
Tara Hills	14.2	2.5	1949	4th-highest
Manapouri (West Arm Jetty)	11.3	1.9	1971	4th-highest
Roxburgh	15.2	2.2	1950	4th-highest
Campbell Island	9.3	1.0	1991	4th-highest
Low records or near-records				
None observed				

Record or near-record mean minimum air temperatures for May were recorded at:

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Castlepoint	13.1	3.1	1972	Highest
Westport	10.6	3.1	1937	Highest
Haast	8.6	2.2	1949	Highest
Puysegur Point	10.5	2.6	1978	Highest
South West Cape	9.8	2.5	1991	Highest
Mokohinau	15.7	1.9	1994	2nd-highest
Leigh	14.4	1.6	1966	2nd-highest
Arapito	9.1	2.5	1978	2nd-highest
Ōkārito	8.5	2.5	1982	2nd-highest
Kaikōura	9.7	1.6	1963	2nd-highest
Le Bons Bay	9.1	1.7	1984	2nd-highest
Porirua	9.3	0.9	1968	3rd-highest
Hokitika	8.5	2.4	1866	3rd-highest
Greymouth	9.6	2.5	1947	3rd-highest
Secretary Island	10.3	2.0	1985	3rd-highest
Te Anau	5.8	3.0	1963	3rd-highest
Ngawi	12.1	1.7	1972	4th-highest
Wellington (Kelburn)	10.8	1.8	1928	4th-highest

Reefton	6.8	2.9	1960	4th-highest
Nelson	8.5	2.2	1862	4th-highest
Cape Campbell	11.1	1.3	1953	4th-highest
Dunedin (Musselburgh)	7.6	1.7	1947	4th-highest
Roxburgh	5.5	3.2	1950	4th-highest
Oban (Stewart Island)	7.4	2.1	1975	4th-highest
Nugget Point	7.4	1.6	1970	4th-highest
Campbell Island	5.4	1.3	1991	4th-highest
Low records or near-records				
None observed				

### Rainfall: Dry for eastern areas, wet in parts of the west

May airflow patterns continued to be influenced by La Niña, with frequent northerly winds and airmasses arriving from the sub-tropics. Rainfall patterns were mixed, with many eastern areas drier than normal, while rainfall totals in some western parts of the country were higher than normal.

Akaroa and Matamata were New Zealand's driest locations relative to normal, with just 24% of normal May rainfall recorded, respectively. In Akaroa, it was the second-driest May since records began in 1977. Westport recorded 364 mm of rain during May, which is more than the total rainfall recorded there during January, March and April (259 mm).

### Record or near-record May rainfall totals were recorded at:

Rainfall total (mm)	Percentage of normal	Year records began	Comments
rds			
318	136	2000	3rd-highest
ds			
22	24	1977	2nd-lowest
22	24	1951	4th-lowest
	total (mm) rds 318 rds 22	total (mm) of normal rds 318 136 rds 22 24	total (mm)   of normal   began     rds   318   136   2000     rds   22   24   1977

### May climate in the six main centres

It was a very mild May for all main centres, but especially in Dunedin, which observed its thirdwarmest May on record. It was also very dry in Dunedin, with just 39% of normal rainfall for the month. Of the six main centres in May 2022, Auckland was the warmest, Tauranga was the sunniest, Dunedin was the driest, Christchurch was the coolest, Hamilton was the wettest and Wellington was the least sunny.

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland <sup>a</sup>	15.1	+1.1	Above average
Tauranga <sup>b</sup>	14.8	+1.5	Well above average
Hamilton <sup>c</sup>	12.6	+1.0	Above average
Wellington <sup>d</sup>	13.4	+1.7	Well above average
Christchurch <sup>e</sup>	10.7	+1.7	Well above average
Dunedin <sup>f</sup>	11.5	+2.2	3rd-highest on record
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland <sup>a</sup>	69	64	Below normal
Tauranga <sup>b</sup>	151	137	Above normal
Hamilton <sup>c</sup>	180	168	Well above normal
Wellington <sup>d</sup>	98	88	Near normal
Christchurch <sup>e</sup>	50 <sup>2</sup>	87	Near normal
Dunedin <sup>f</sup>	25	39	Well below normal
Sunshine			
Location	Sunshine (hours)		
Auckland <sup>a</sup>	174		
Tauranga <sup>b</sup>	190		
Hamilton <sup>g</sup>	176		
Wellington <sup>d</sup>	111		
Christchurch <sup>e</sup>	170 <sup>2</sup>		
Dunedin <sup>f</sup>	129		

### May 2022 main centre climate statistics:

<sup>a</sup> Māngere <sup>b</sup> Tauranga Airport <sup>c</sup> Hamilton Airport <sup>d</sup> Kelburn <sup>e</sup> Christchurch Airport <sup>f</sup> Musselburgh <sup>g</sup> Ruakura

<sup>&</sup>lt;sup>2</sup> Missing one day of data.

### Highlights and extreme events

#### **Rain and slips**

The highest 1-day rainfall was 115 mm, recorded at Milford Sound on 7 May.

From 8 to 9 May, heavy rainfall on the West Coast caused several large slips and surface flooding. This resulted in road closures including SH6 at 8 Mile between Inangahua and Lyell, Taylorville Rd (between Greymouth and Blackball), and SH6 between Greymouth and Punakaiki. Farther south, a portion of Rattray St in Dunedin's CBD was closed due to surface flooding.

On 9 May, a period of heavy evening rain in Timaru caused areas of flooding as 12 mm of rainfall was recorded in just one hour. Several CBD businesses had floodwaters come into their premises.

On 30 May, heavy rain fell over northeastern parts of the North Island, with SH25 south of Whitianga closed due to flooding. Whitianga recorded 40.4 mm of rain in the hour to 1:00 p.m. This was the town's heaviest hourly rainfall since 31 May 2020, when 49.8 mm fell in the hour to 1:00 a.m.

Following a particularly dry start to May in Waikato and South Auckland, the Ministry for Primary Industries classified a medium-scale adverse event on 16 May for the impact that the long-term dryness was having on farmers and growers.

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Ohakune	78	17th	1961	Highest
Whanganui	51	15th	1937	3rd-highest
South West Cape	35	18th	1991	3rd-highest
Greymouth	88	8th	1947	4th-highest
Waipara West	33	9th	1973	4th-highest

#### Record or near-record May extreme 1-day rainfall totals were recorded at:

#### Temperatures

The month started on a very warm note for much of the country. The warmth was especially persistent in parts of the South Island where a warm spell<sup>3</sup> was observed. In Cromwell for example, the average daily maximum temperature for May is 12.7°C. From 1-8 May, Cromwell's average daily maximum temperature was 19.6°C, and reached as high as 21.1°C on 2 May. The warm spell lasted eight days in Cromwell and Lauder, seven days in Invercargill and Mount Cook Village, and five days in Gore.

Invercargill observed an average daily maximum temperature of 19.4°C during its seven-day warm spell. This is higher than the normal daily maximum temperature observed there in January (18.8°C). The city's highest temperature recorded during this hot spell was 21.6°C, just 0.1°C lower than Invercargill's highest May temperature on record (21.7°C, observed in 1924).

<sup>&</sup>lt;sup>3</sup> Defined here as at least five consecutive days where the daily maximum temperature is  $\geq$ 5°C higher than *normal* for the time of year. *Normal* in this context is the 1981-2010 average daily maximum temperature for May.

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments					
High records or near-records	High records or near-records								
Whangaparāoa	22.7	17th	1982	Highest					
Castlepoint	23.7	3rd	1972	Highest					
Cape Reinga	22.9	7th	1951	2nd-highest					
Whitianga	23.4	18th	1962	2nd-highest					
Ngawi	23.3	3rd	1972	2nd-highest					
Hastings	25.6	19th	1965	2nd-highest					
Mt Cook Village	20.8	7th	1929	2nd-highest					
Five Rivers	21.2	7th	1982	2nd-highest					
Invercargill	21.6	6th	1905	2nd-highest					
Masterton	24.7	3rd	1906	3rd-highest					
Porirua	20.9	4th	1968	3rd-highest					
Wellington (Airport)	21.1	4th	1962	3rd-highest					
Stratford	20.5	5th	1960	3rd-highest					
Middlemarch	23.5	2nd	2000	3rd-highest					
South West Cape	20.0	30th	1991	3rd-highest					
Mokohinau	20.8	16th	1994	Equal 3rd-highest					
Motu	20.6	3rd	1990	4th-highest					
Martinborough	22.6	3rd	1986	4th-highest					
Ōkārito	19.8	1st	1982	4th-highest					
Windsor	23.0	31st	2000	4th-highest					
Ranfurly	20.7	2nd	1897	4th-highest					
Low records or near-records									
None observed									

Record or near-record daily maximum air temperatures for May were recorded at:

### Record or near-record daily minimum air temperatures for May were recorded at:

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments		
High records or near-records						
Porirua	17.0	9th	1972	Highest		
Secretary Island	15.2	7th	1988	Highest		
Puysegur Point	16.8	7th	1978	Highest		
Le Bons Bay	15.5	2nd	1984	Highest		
South West Cape	15.0	7th	1991	Highest		
Campbell Island	10.5	1st	1991	Highest		
Brothers Island	16.1	4th	1997	Equal highest		
Mokohinau	18.9	18th	1994	2nd-highest		
Auckland (Whenuapai)	17.8	17th	1951	2nd-highest		
Auckland (Western Springs)	17.6	16th	1971	2nd-highest		
Wellington (Airport)	17.3	9th	1972	2nd-highest		
Westport	16.3	3rd	1966	2nd-highest		

Waipara West	18.3	2nd	1973	2nd-highest
				-
Akaroa	15.9	2nd	1978	2nd-highest
Orari Estate	11.6	9th	1972	2nd-highest
Auckland (Māngere)	18.0	16th	1961	Equal 2nd-highest
Port Taharoa	17.2	17th	1974	Equal 2nd-highest
Ngawi	18.0	3rd	1972	3rd-highest
Ōkārito	14.1	31st	1983	3rd-highest
Windsor	10.9	9th	2000	3rd-highest
Dunedin (Musselburgh)	13.2	8th	1947	3rd-highest
Te Anau	12.9	8th	1973	3rd-highest
Invercargill	13.3	8th	1905	3rd-highest
Whitianga	17.7	17th	1971	Equal 3rd-highest
Whangārei	18.3	18th	1967	4th-highest
Whatawhata	16.9	16th	1952	4th-highest
Martinborough	16.7	9th	1986	4th-highest
Wellington (Kelburn)	16.2	9th	1931	4th-highest
Hāwera	15.8	16th	1977	4th-highest
Greymouth	14.8	3rd	1972	4th-highest
Kaikōura	15.5	3rd	1972	4th-highest
Manapouri (Airport)	12.3	8th	1973	4th-highest
Kaikohe	16.8	19th	1973	Equal 4th-highest
Motu	13.8	18th	1990	Equal 4th-highest
Oamaru	11.1	9th	1972	Equal 4th-highest
Low records or near-records				
None observed				

#### Wind

The highest wind gust was 193 km/h, observed at Cape Foulwind on 20 May.

On 20 May, strong and damaging winds struck many parts of the North Island. In Cambridge, a woman died after being trapped under a tree that had toppled in the wind. Farther north, several lanes of the Auckland Harbour Bridge were closed because of the strong winds. Levin recorded a wind gust of 141 km/h – the highest May gust for the town since records began in 1971. The strong winds (and possible tornado on this day) caused considerable damage to a number of buildings and trees.

On 21 May, strong winds occurred for coastal parts of Southland. In Invercargill, a trampoline was picked up and blown down a residential street, causing damage to a parked car.

#### Record or near-record May extreme wind gusts were recorded at:

Location	Extreme wind gust (km/h)	Date of extreme gust	Year records began	Comments
Levin	141	20th	1971	Highest
Clyde	87	21st	1983	Highest
Rotorua	95	20th	1972	2nd-highest
Hāwera	102	20th	1986	2nd-highest
Puysegur Point	161	1st	1986	2nd-highest

Pukekohe	69	20th	1986	Equal 2nd-highest
Hamilton (Ruakura)	74	20th	1996	3rd-highest
Tūrangi	100	21st	1973	3rd-highest
Kaikohe	83	20th	1986	Equal 3rd-highest
Secretary Island	130	21st	1994	4th-highest
Tauranga	91	21st	1973	Equal 4th-highest
Mt Ruapehu (Chateau)	87	20th	2000	Equal 4th-highest

#### Snow and ice

On 20 May, a cold southerly change saw snow settle about Arthur's Pass Village and Castle Hill Village in the South Island, however nearby roads remained open.

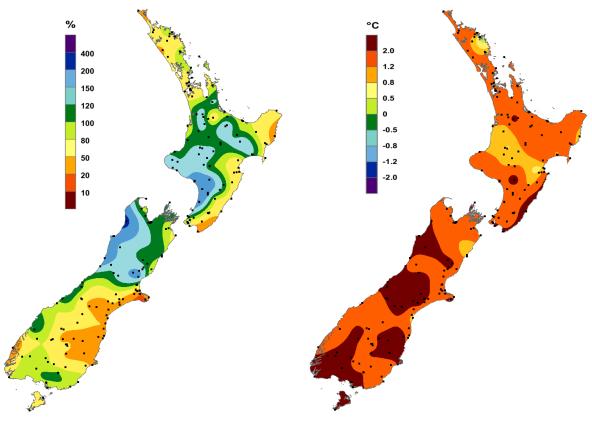
### Lightning, hail, and tornadoes

On 19 May, approximately 6000 lightning strikes were recorded near West Coast and out to the Tasman Sea.

On 20 May, severe thunderstorms occurred over much of the country, but especially southern parts of the North Island. At around 6:15-6:30 a.m., a possible tornado hit Levin, damaging between 30-50 homes, and bringing down numerous powerlines and mature trees. In Ōhau (just south of Levin), a severe hailstorm caused considerable damage to property and crops. One farmer described the damage as catastrophic and the worst hail damage in 44 years of farming, with nothing left of their cabbage, silverbeet and lettuce crop. Around 12,000 lightning strikes were recorded about New Zealand in the 6 hours to 11:30 a.m.

### For further information, please contact:

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May rainfall Expressed as a percentage of the 1981-2010 normal.

May temperature Expressed as a departure from the 1981-2010 average in degrees Celsius.

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