

Unprecedented rainfall in the north, hot and dry for the south

Rainfall	Above normal (120-149% of normal) or well above normal (>149% of normal) rainfall was observed across most of the North Island, northern Tasman and eastern Marlborough. It was an exceptionally wet month for the southern half of Northland, Auckland, the Coromandel Peninsula, western Bay of Plenty and parts of Hawke's Bay which all received at least 400% of normal January rainfall. Auckland observed its wettest ever month in records dating back to 1853. In stark contrast, below normal (50-79% of normal) or well below normal (<50% of normal) rainfall was observed across the majority of the South Island.
Temperature	Temperatures were above average (0.51-1.20°C above average) or well above average (>1.20°C above average) across the majority of the South Island, and most western, inland and northern parts of the North Island. Temperatures were generally near average ($\pm 0.50^\circ\text{C}$ of average) along the eastern North Island, Marlborough, and coastal North Canterbury, with patches of below average temperature (0.51-1.20°C below average) observed in coastal parts of Gisborne and Wairarapa.
Soil Moisture	At the end of January, soil moisture levels were considerably higher than normal across the majority of the North Island. The exception was southwestern parts from Manawatū-Whanganui to Wellington where soil moisture levels were near normal. Soil moisture levels were lower than normal for the lower half of the South Island and most of the West Coast, as well as much of Tasman, with near normal soil moisture levels prevailing for most remaining parts of the South Island.

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Important note: NIWA have updated Aotearoa New Zealand's climate normals to the 1991-2020 baseline period. This is in line with a World Meteorological Organization recommendation that the 30-year standard reference periods should be updated every decade to better reflect the changing climate, and its influence on day-to-day weather. Beginning now and until further notice, all normal values and differences from normal reported in this and subsequent climate summaries are compared to the 1991-2020 baseline period. Using the latest baseline period has no bearing on rankings which are presented in these summaries. For example, the nationwide average temperature in January 2023 was 18.38°C. This was New Zealand's 10th-warmest January on record, at 1.16°C above the 1991-2020 January average (and 1.25°C above the 1981-2010 January average). Detailed analyses are ongoing to understand how New Zealand's climate normals have changed between the 1981-2010 and 1991-2020 baseline periods. Results from these analyses will be publicised in due course.

Overview

La Niña persisted during January 2023 and was a key climate driver for the month. In addition, the Southern Annular Mode (SAM) was positive every day during January, with positive SAM phases associated with higher than normal air pressure in the Aotearoa New Zealand region. Indeed, an expansive high air pressure anomaly near and over the South Island was observed. This, coupled with an equally strong low pressure anomaly north of the North Island, contributed to more easterly winds than normal over the country.

The prevailing air pressure pattern also contributed to several slow-moving, high impact rainfall events in the North Island, very dry conditions in the west and south of the South Island, and a record marine heatwave off the South Island's West Coast. The monthly sea-surface temperature anomaly of +3.15°C to the west of the South Island surpassed the previous monthly record of +2.46°C set in January 2018 (records began in 1982). By the end of January, marine heatwave conditions were widespread around the South Island and in parts of the western and lower North Island.

Rainfall extremes were a dominant feature of January 2023. Northern and eastern parts of the North Island were subject to several consecutive rainfall events that each delivered a typical month's worth of rainfall, or more. Rainfall totals for the month were above normal (120-149% of normal) or well above normal (>149% of normal) across most of the North Island, northern Tasman and eastern Marlborough, but these descriptors don't do justice to the exceptional totals that were observed. For example, the southern half of Northland, Auckland, the Coromandel Peninsula, western Bay of Plenty and parts of Hawke's Bay each received at least 400% of normal January rainfall. Several stations in Auckland received more than 600% of normal rainfall, with the highest anomaly of 859% recorded in Māngere. In Albert Park, a January total of 538.5 mm was observed, making it the all-time monthly high for that site's homogenised record which begins in 1853¹. See NIWA's [statement](#) on Auckland's record-breaking month of rainfall for more information.

In stark contrast to the North Island, rainfall was below normal (50-79% of normal) or well below normal (<50% of normal) across the majority of the South Island. It was exceptionally dry for parts of western and southern Southland, coastal south Otago, northwestern Otago, Banks Peninsula and Aoraki Mt Cook Village, which each received less than 20% of normal January rainfall. Isolated pockets of near normal rainfall (80-119% of normal) were observed in the Kāpiti Coast and Nelson.

January temperatures were above average (0.51-1.20°C above average) or well above average (>1.20°C above average) across the majority of the South Island, and most western, inland and northern parts of the North Island. It was particularly warm for western parts of the South Island, with temperature anomalies exceeding 3.0°C in many locations. Such high temperatures were largely a result of regular Foehn wind events and very high sea surface temperatures nearby. Foehn events are typically associated with northwest winds in New Zealand, but the same process occurs for western locations during easterly winds events, and easterlies were a regular feature during January. The nationwide average temperature in January 2023 was 18.4°C. This was 1.2°C above the 1991-2020 January average from NIWA's seven station temperature series which begins in 1909, and New Zealand's 10th-warmest January on record.

¹ Fowler, A. M. (2021) *Central Auckland rainfall, 1853-2020: towards a homogenous record*. Journal of Hydrology (NZ) 60 (1): 25-47

The prevalence of high pressure over the South Island contributed to relatively high sunshine hours for many locations there. Alexandra recorded 305 hours of sunshine, making it the town's sunniest January since records began in 1930. Farther north, Hokitika observed 274 hours of sunshine, which was the town's fourth-highest January sunshine total since records began in 1912. In the North Island, high rainfall totals were accompanied by low sunshine hours. Dargaville, Whangārei, Auckland, Gisborne, Dannevirke, Masterton and Martinborough each observed their lowest January sunshine hour total on record².

Further Highlights³:

- The highest temperature was 34.2°C, observed at Cromwell on 29 January, and Alexandra on 31 January.
- The lowest temperature was 0.4°C, observed at Waipara on 9 January.
- The highest 1-day rainfall was 265 mm, recorded at Māngere (Auckland) on 27 January.
- The highest wind gust was 141 km/h, observed at Cape Reinga on 3 January.
- Of the six main centres in January 2023, Dunedin was the coolest, driest and sunniest, Auckland and Tauranga were the equal-warmest, while Auckland was additionally the wettest and least sunny.
- Of the available, regularly reporting sunshine observation sites, the sunniest four locations so far in 2023 are Central Otago (308.6 hours), Queenstown Lakes District (302.1 hours), West Coast (299.1 hours) and Mackenzie Basin (294.8 hours).

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Rainfall: Exceptionally wet for the North Island, dry for much of the south

Seventeen North Island locations observed their wettest-ever January on record. The rainfall anomalies recorded in some locations were phenomenal, particularly for areas of Northland, Auckland, Waikato and western Bay of Plenty where anomalies exceeding 500% were common. Auckland and Tauranga each recorded 18 wet days during January (days with at least 1 mm of rain), three times greater than their January average of six days, respectively.

In contrast, 18 South Island locations observed record or near-record low rainfall totals for January. Perhaps most notably, Invercargill observed its driest January since records began in 1900. Wānaka was New Zealand's driest location, recording just 4 mm of rain over the entire month. Many parts of the South Island and lower North Island observed prolonged periods of dry weather, with dry spells⁴

² It is important to note that sunshine durations in New Zealand have been measured with different instruments over time. Contemporary observations are typically made with *Kipp & Zonen* instruments (electronic), whereas historic observations were made with *Campbell Stokes* instruments (manual). As such, these data are not reliably comparable. This topic was examined by NIWA Scientists in 2019 – for further information see <https://www.jstor.org/stable/26892910>

³ From stations available in NIWA's National Climate Database.

⁴ Defined here as a period of at least 15 consecutive days with less than 1 mm of rainfall on any given day.

observed at the following locations: Wānaka (28 days from 30 December 2022 – 26 January 2023), Alexandra (20 days from 7-26 January), Queenstown (15 days from 11-25 January), and Wellington (15 days from 12-26 January). According to NIWA’s New Zealand Drought Index, it had become *extremely dry* by the end of January in parts of coastal South Otago, northwestern Otago, and northern Fiordland.

Record^{5,6} or near-record January rainfall totals were recorded at:

Location	Rainfall total (mm)	Percentage of normal	Year records began	Comments
High records or near-records				
Kaikohe	527	504	1956	Highest
Whangārei	489	627	1937	Highest
Warkworth	551	742	1966	Highest
Whangaparāoa	313	581	1946	Highest
Auckland (Whenuapai)	483	739	1943	Highest
Auckland (North Shore)	481	718	1966	Highest
Auckland (Western Springs)	480	736	1948	Highest
Whitianga	523	544	1961	Highest
Paeroa	387	608	1914	Highest
Auckland (Māngere)	478	859	1959	Highest
Pukekohe	346	487	1944	Highest
Whatawhata	334	373	1952	Highest
Hamilton (Airport)	235	313	1935	Highest
Port Taharoa	258	400	1973	Highest
Te Kuiti	363	434	1950	Highest
Gisborne	252	384	1905	Highest
Māhia	159	297	1990	Highest
Purerua	281	489	1983	2nd-highest
Leigh	390	578	1966	2nd-highest
Matamata	238	291	1951	2nd-highest
Tauranga	385	506	1898	2nd-highest
Te Puke	401	415	1973	2nd-highest
Taupō	223	304	1949	2nd-highest
Tūrangi	321	322	1968	2nd-highest
Takapau Plains	214	258	1962	2nd-highest
Dannevirke	186	230	1951	2nd-highest
Tutira	327	361	1894	2nd-highest
Napier	266	416	1870	2nd-highest
Hastings	189	413	1965	2nd-highest
Kaitaia	288	385	1948	3rd-highest
Kerikeri	449	401	1935	3rd-highest
Masterton	182	348	1926	3rd-highest

⁵ The rankings (1st, 2nd, 3rd.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.

⁶ Comparisons to normals in all Tables in this summary are relative to the 1991-2020 baseline. Please refer to the first page of the summary for further details.

Castlepoint	259	316	1902	3rd-highest
Whakatu	170	371	1965	3rd-highest
Hamilton (Ruakura)	217	288	1905	4th-highest
Taumarunui	221	205	1913	4th-highest
Waipawa	174	266	1945	4th-highest
Low records or near-records				
Invercargill	24	27	1900	Lowest
Balclutha	6	9	1964	Lowest
Nugget Point	12	16	1930	Lowest
Windsor	15	31	2000	Equal lowest
Arapito	45	25	1978	2nd-lowest
Lake Moeraki	101	25	1985	2nd-lowest
Mt Cook (Airport)	46	11	1928	2nd-lowest
Akaroa	7	13	1977	2nd-lowest
Wānaka	4	7	1927	2nd-lowest
Manapouri (West Arm Jetty)	60	16	1971	2nd-lowest
Ōkārīto	96	33	1981	3rd-lowest
Waimate	12	24	1898	3rd-lowest
Oamaru	12	23	1941	3rd-lowest
Gore	26	28	1907	3rd-lowest
Milford Sound	94	14	1929	4th-lowest
Tara Hills	12	27	1949	4th-lowest
Ranfury	13	22	1897	4th-lowest
Manapouri (Airport)	20	22	1961	4th-lowest
Chatham Island	21	43	1999	4th-lowest

Temperature: Warm everywhere except the eastern coasts

January temperatures were relatively high across the majority of New Zealand. The exception was eastern parts of the North Island, and the eastern coast of the South Island about and north of Canterbury, where easterly winds and cloud cover suppressed daytime maximum temperatures. Interestingly, the mean daily maximum temperature at Castlepoint (19.1°C) was lower than that observed approximately 900 km to the southwest in Oban, Stewart Island (19.7°C).

Regular clear skies, Foehn winds, drier than normal soils and a record-breaking marine heatwave contributed to exceptionally high daytime maximum temperatures for the West Coast. Hokitika's mean maximum air temperature was 23.9°C, its highest since records began in 1866. Franz Josef's mean maximum temperature of 25.2°C was a remarkable 5.5°C higher than average. Greymouth recorded nine days with a daily maximum temperature above 25°C in January; the town averages just one such day *per summer*.

Although regular cloud cover (and sodden soils) limited daytime maximum temperatures for many parts of the North Island, it also brought enhanced overnight minimum temperatures, with numerous locations observing near-record high mean minimum temperatures for the month. The mean minimum temperature in Hamilton (Ruakura) was 15.7°C, which is 2.9°C higher than normal for the

time of year. Kaitaia, Kerikeri and Whitianga each observed mean minimum temperatures that were 2.6°C higher than normal for the time of year.

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

Location	Mean air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Franz Josef	19.1	3.9	1953	Highest
Waipounamu	16.4	1.5	1980	Highest
Campbell Island	11.3	1.7	1991	Highest
Westport	20.0	3.6	1937	2nd-highest
Arapito	19.4	3.1	1978	2nd-highest
Hokitika	19.1	3.3	1866	2nd-highest
Reefton	20.1	2.8	1960	2nd-highest
Greymouth	19.8	4.0	1947	2nd-highest
Ōkārito	19.0	3.2	1982	2nd-highest
Haast	18.3	3.6	1949	2nd-highest
Milford Sound	17.9	2.9	1934	2nd-highest
Secretary Island	18.6	3.8	1985	2nd-highest
Te Anau	17.4	2.7	1963	2nd-highest
Manapouri (West Arm Jetty)	17.7	3.2	1971	2nd-highest
Oban (Stewart Island)	15.6	2.0	1975	2nd-highest
South West Cape	15.7	2.6	1991	2nd-highest
Dargaville	21.0	1.7	1943	3rd-highest
Wānaka	19.9	2.6	1955	3rd-highest
Lumsden	16.4	1.6	1982	3rd-highest
Tiwai Point	16.1	1.6	1970	3rd-highest
Nugget Point	15.9	1.8	1970	3rd-highest
Arthurs Pass	16.0	2.8	1973	4th-highest
Low records or near-records				
None observed				

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

Location	Mean maximum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Hokitika	23.9	4.4	1866	Highest
Greymouth	24.4	5.3	1947	Highest
Ōkārito	24.1	4.3	1982	Highest
Franz Josef	25.2	5.5	1953	Highest
Haast	22.9	4.5	1949	Highest
Secretary Island	22.7	4.7	1985	Highest
Waipounamu	23.0	2.4	1980	Highest
Campbell Island	14.0	2.0	1991	Highest
Westport	23.6	3.4	1937	2nd-highest
Arapito	24.4	3.4	1978	2nd-highest
Reefton	26.5	3.1	1960	2nd-highest

Milford Sound	23.1	3.8	1934	2nd-highest
Manapouri (West Arm Jetty)	23.7	4.3	1971	2nd-highest
South West Cape	19.2	3.2	1991	2nd-highest
Wānaka	27.2	3.4	1955	3rd-highest
Manapouri (Airport)	24.2	3.5	1963	3rd-highest
Lumsden	23.0	2.2	1982	3rd-highest
Cromwell	28.0	3.1	1949	3rd-highest
Invercargill	21.9	3.0	1905	3rd-highest
Tiwai Point	19.9	1.9	1970	3rd-highest
Oban (Stewart Island)	19.7	2.1	1975	3rd-highest
Levin	24.5	2.4	1895	4th-highest
Ranfurly	24.5	2.5	1897	4th-highest
Middlemarch	24.3	1.8	2000	4th-highest
Queenstown	26.1	3.4	1871	4th-highest
Clyde	27.1	2.2	1978	4th-highest
Low records or near-records				
Whitianga	22.5	-1.5	1962	2nd-lowest
Māhia	19.8	-2.0	1990	2nd-lowest
Mokohinau	21.3	-1.1	1994	3rd-lowest
Castlepoint	19.1	-1.9	1972	3rd-lowest
Matamata	23.0	-1.4	1999	4th-lowest
Te Puke	22.6	-1.4	1973	4th-lowest

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

Location	Mean minimum air temp. (°C)	Departure from normal (°C)	Year records began	Comments
High records or near-records				
Campbell Island	8.5	1.3	1991	Highest
Kaitaia	17.4	2.6	1948	2nd-highest
Purerua	17.2	1.8	1983	2nd-highest
Whangārei	17.7	1.9	1967	2nd-highest
Auckland (Whenuapai)	16.7	2.1	1945	2nd-highest
Auckland (Western Springs)	17.4	1.9	1948	2nd-highest
Whitianga	16.8	2.6	1962	2nd-highest
Hamilton (Ruakura)	15.7	2.9	1906	2nd-highest
Port Taharoa	17.2	1.8	1973	2nd-highest
Lower Retaruke	13.7	1.9	1966	2nd-highest
Westport	16.4	3.8	1937	2nd-highest
Reefton	13.7	2.5	1960	2nd-highest
Ōkārīto	13.8	2.1	1982	2nd-highest
Secretary Island	14.5	2.9	1985	2nd-highest
Waipounamu	9.7	0.6	1980	2nd-highest
South West Cape	12.1	2.0	1991	2nd-highest
Chatham Island	13.6	1.5	1999	2nd-highest
Kerikeri	16.8	2.6	1945	3rd-highest
Dargaville	16.6	1.4	1943	3rd-highest
Te Puke	15.8	2.2	1973	3rd-highest
Taupō	14.0	2.4	1949	3rd-highest

Hamilton (Airport)	15.5	2.9	1946	3rd-highest
Waikeria	15.0	2.5	1957	3rd-highest
Waipawa	13.8	2.3	1945	3rd-highest
Arapito	14.3	2.6	1978	3rd-highest
Hokitika	14.3	2.3	1866	3rd-highest
Greymouth	15.2	2.7	1947	3rd-highest
Franz Josef	13.0	2.4	1953	3rd-highest
Haast	13.7	2.7	1949	3rd-highest
Milford Sound	12.7	2.0	1934	3rd-highest
Oamaru	12.6	1.9	1967	3rd-highest
Dunedin (Musselburgh)	13.6	2.0	1947	3rd-highest
Nugget Point	12.2	2.0	1970	3rd-highest
Te Anau	11.1	2.5	1963	Equal 3rd-highest
Whakatāne	16.3	1.7	1974	4th-highest
Napier	16.5	2.2	1870	4th-highest
Ohakune	11.0	1.4	1962	4th-highest
Manapouri (West Arm Jetty)	11.7	2.1	1971	4th-highest
Tiwai Point	12.3	1.4	1970	4th-highest
Oban (Stewart Island)	11.5	1.9	1975	4th-highest
Low records or near-records				
None observed				

January climate in the six main centres

January rainfall was exceptionally high in Auckland and Hamilton, with both cities observing their wettest January on record. Tauranga recorded 506% of its usual January rainfall, making it the city's second-wettest January on record. The high rainfall totals were accompanied by a lack of sunshine for the northern main centres. Auckland received its lowest sunshine total for January since records began in 1963, while Hamilton and Tauranga's sunshine totals were their second-lowest for January since records began in 1932 and 1936, respectively. It was a settled month in Dunedin where the temperature was well above average and rainfall well below normal.

Of the six main centres in January 2023, Dunedin was the coolest, driest and sunniest, Auckland and Tauranga were the equal-warmest, while Auckland was additionally the wettest and least sunny.

January 2023 main centre climate statistics:

Temperature			
Location	Mean temp. (°C)	Departure from normal (°C)	Comments
Auckland ^a	20.1	+0.3	Near average
Tauranga ^b	20.1	+0.3	Near average
Hamilton ^c	19.5	+1.0	Above average
Wellington ^d	17.6	+0.6	Above average
Christchurch ^e	17.6	+0.5	Near average
Dunedin ^f	16.8	+1.6	Well above average
Rainfall			
Location	Rainfall (mm)	% of normal	Comments
Auckland ^a	478	859	Highest on record
Tauranga ^b	385	506	2nd-highest on record
Hamilton ^c	235	313	Highest on record
Wellington ^d	116	146	Above normal
Christchurch ^e	26	61	Below normal
Dunedin ^f	24	34	Well below normal
Sunshine			
Location	Sunshine (hours)		
Auckland ^a	145		
Tauranga ^b	164		
Hamilton ^g	156		
Wellington ^d	229		
Christchurch ^e	244		
Dunedin ^f	271		

^a Māngere ^b Tauranga Airport ^c Hamilton Airport ^d Kelburn ^e Christchurch Airport ^f Musselburgh ^g Ruakura

Highlights and extreme events

Rain and slips

On 5 January, heavy rain caused widespread flooding and slips for many parts of the Coromandel Peninsula, with several roads temporarily closed.

From 10-11 January, ex-tropical Cyclone Hale severely impacted much of the northern and eastern North Island, with a state of local emergency declared in Gisborne. Heavy rain caused flooding, slips and road closures across parts of Northland, north Auckland, Great Barrier Island, the Coromandel Peninsula and Gisborne, and reportedly caused substantial damage to crops in many areas. High and rough seas caused appreciable beach erosion in the eastern Coromandel. Residents of Tokomaru Bay were forced to evacuate due to flooding. The Hikuwai River (north of Gisborne) peaked at a height of 13.51 m, exceeding the peak height reached during Cyclone Bola in 1988 (13.31 m). Farther south, heavy rain on 11 January caused slips and road closures in the Masterton District, and surface flooding was reported on SH1 between Picton and Blenheim.

From 27-28 January, torrential rainfalls occurred over much of the northern North Island, with widespread impacts particularly observed in Northland, Auckland, Coromandel and the Bay of Plenty. The rainfall observed in Auckland was unprecedented, with maximum rainfall totals for 1-hr, 2-hr, 6-hr, 12-hr, 24-hr and 48-hr durations all exceeding the previous highest totals on record, respectively. The exceptional nature of this event makes it unwieldy to list all its impacts, so the following bullet points list some of the most notable impacts and observations as at early-February 2023:

- Four people died due to the severe weather event.
- A state of emergency was declared in Auckland.
- At least 5,000 Auckland properties were being assessed for flood or landslide damage, with at least 77 homes red stickered.
- Auckland Airport was severely flooded, with floodwaters throughout the terminal buildings forcing the airport to close temporarily. Tens of thousands of travellers were impacted by cancelled and diverted flights.
- Flooding forced residents to evacuate their homes in many parts of Auckland, and the speed at which flooding intensified meant there were many instances of people being caught out and requiring rescuing. Many motorists were stranded in their cars by floodwaters.
- The Coromandel Peninsula was totally cut off by road closures, and a section of SH25A between Kopu and Hikuai had collapsed making it impassable, with *Waka Kotahi*, with *Waka Kotahi* stating it will be closed “for quite some time”.
- A state of emergency was declared for Waitomo District, with some residents forced to evacuate their homes due to flooding.
- The homogenised central Auckland rainfall series recorded a January total of 539 mm at Albert Park, shattering the previous all-months record of 420 mm from February 1869. Rainfall data from this series began in 1853.

- Māngere recorded 478 mm of rainfall for the month, which is equivalent to 43% of the average annual rainfall at that location.

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

Location	Extreme 1-day rainfall (mm)	Date of extreme rainfall	Year records began	Comments
Auckland (Whenuapai)	190	27th	1943	Highest
Auckland (North Shore)	230	27th	1966	Highest
Auckland (Western Springs)	215	27th	1948	Highest
Auckland (Māngere)	265	27th	1959	Highest
Pukekohe	198	27th	1944	Highest
Whatawhata	119	27th	1952	Highest
Te Kuiti	132	28th	1957	Highest
Kaikohe	107	4th	1956	2nd-highest
Mokohinau	106	27th	1994	2nd-highest
Whangaparāoa	103	27th	1946	2nd-highest
Port Taharoa	84	27th	1973	2nd-highest
Tūrangi	115	28th	1968	2nd-highest
Gisborne	91	10th	1937	2nd-highest
Whangārei	92	27th	1943	3rd-highest
Warkworth	131	27th	1967	3rd-highest
Ngawi	67	11th	1930	3rd-highest
Māhia	49	10th	1990	3rd-highest
Leigh	114	27th	1967	4th-highest
Taupō	84	27th	1949	4th-highest
Hastings	53	28th	1967	4th-highest
Whakatu	51	28th	1967	4th-highest
Waipara West	42	27th	1973	4th-highest

Temperatures

The highest temperature was 34.2°C, observed at Cromwell on 29 January, and Alexandra on 31 January.

The lowest temperature was 0.4°C, observed at Waipara on 9 January.

Western, inland and southern parts of the South Island were frequented by regular spells of relatively high temperatures. Perhaps most notable was Greymouth, where the maximum temperature reached 30.9°C on 8 January. This was the first time Greymouth had registered a temperature of 30°C or more, with records beginning in 1947. Daily maximum temperatures of at least 30°C were common in Central Otago, occurring in Alexandra, Clyde and Cromwell on 10 days, 10 days, and 12 days, respectively.

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

Location	Extreme maximum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Westport	29.1	28th	1937	Highest
Greymouth	30.9	8th	1947	Highest

Ōkārito	26.9	30th	1982	Highest
Arapito	29.4	28th	1978	2nd-highest
Manapouri (West Arm Jetty)	30.1	9th	1971	2nd-highest
Franz Josef	28.8	29th	1953	3rd-highest
Secretary Island	27.2	11th	1985	3rd-highest
Waipounamu	30.2	31st	1980	3rd-highest
Whangaparāoa	29.0	19th	1982	4th-highest
Levin	30.5	29th	1895	4th-highest
Haast	27.3	7th	1949	4th-highest
Manapouri (Airport)	30.8	29th	1963	4th-highest
Campbell Island	17.5	3rd	1991	4th-highest
Brothers Island	25.0	4th	1997	Equal 4th-highest
South West Cape	25.6	9th	1991	Equal 4th-highest
Low records or near-records				
Matamata	18.7	10th	1999	Equal 3rd-lowest

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

Location	Extreme minimum (°C)	Date of extreme temperature	Year records began	Comments
High records or near-records				
Westport	21.1	7th	1966	Highest
Waipounamu	17.2	6th	1980	Highest
Ōkārito	18.6	31st	1983	2nd-highest
Haast	18.9	31st	1949	2nd-highest
Secretary Island	17.8	16th	1988	2nd-highest
Brothers Island	17.6	4th	1997	2nd-highest
Auckland (Whenuapai)	21.0	29th	1951	Equal 2nd-highest
Auckland (Western Springs)	21.4	29th	1971	Equal 2nd-highest
Greymouth	19.1	29th	1972	Equal 2nd-highest
Paeroa	21.0	29th	1971	3rd-highest
New Plymouth	20.2	30th	1944	3rd-highest
Purerua	20.0	30th	1983	Equal 3rd-highest
Hamilton (Airport)	20.2	29th	1946	Equal 3rd-highest
Franz Josef	17.3	31st	1953	Equal 3rd-highest
Westport	19.0	30th	1966	4th-highest
Whatawhata	19.8	29th	1952	Equal 4th-highest
Hāwera	19.3	30th	1977	Equal 4th-highest
Nugget Point	15.6	27th	1972	Equal 4th-highest
Low records or near-records				
None observed				

Wind

The highest wind gust was 141 km/h, observed at Cape Reinga on 3 January.

On 3 January, a fatal vehicle accident occurred near Ahipara (Northland) when a ute collided with a tree that had been downed by strong winds.

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

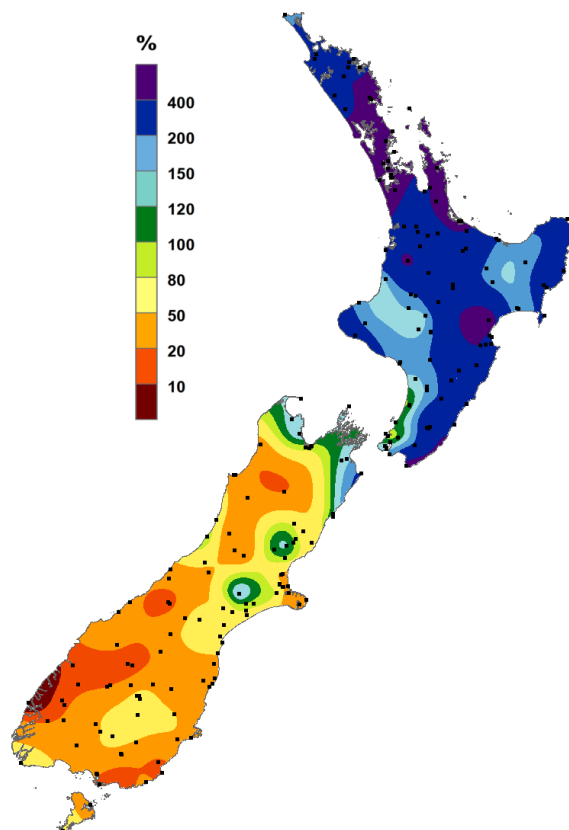
Location	Extreme wind gust (km/h)	Date of extreme gust	Year records began	Comments
Cape Reinga	141	3rd	1974	Highest
Mt Ruapehu (Chateau)	109	10th	2000	2nd-highest
Kaikohe	82	31st	1986	3rd-highest
Whangārei	85	10th	1973	4th-highest

Cloud and Fog

On 31 January, heavy fog over Wellington Airport forced the diversion or cancellation of dozens of flights. The fog had mostly lifted by around 3 p.m., allowing regular flights to resume from that time onwards.

For further information, please contact:

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January rainfall

Expressed as a percentage of the 1991-2020 normal.

<https://www.niwa.co.nz/our-science/climate>

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