

TABLE IV. — BEALEY,—interior of Canterbury, at 2104 ft. above sea.

Mean Annual Temp.	Mean daily range of Temp for year.	Extreme range of Temp. for year.	Mean Barometer reading for year.	Range of Barometer for year.	Mean Elastic Force of Vapour for year.	Mean Degree of Moisture for year.	Total Rain Fall.	Mean Amount of Cloud.
Degrees.	Degrees	Degrees.	Inches	Inches.	Inches	Sat.-100.	Inches.	0 to 10.
46·8	15·4	65 0	29·770*	1 228	·256	80	106·293	5·2

* Reduced to sea level.

TABLE V. — EARTHQUAKES in NEW ZEALAND, in 1870, recorded at the Government Meteorological Stations.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Mongonui	0
Auckland	7* 8	...	29	3, 24	29	..	0
Taranaki	4	..	25*	..	..	29	3, 24	29	..	7
Napier	8, 15, 17	12*	.	.	3, 25	..	7*	11	30	3	10, 19	18	6
Wellington	3, 25	..	7*	11	30	3	10, 19	18	9
Nelson	7* 8*	22	..	3	19	...	5
Christchurch	17*	.	..	..	..	31*	..	..	..	...	2
Bealey	10	..	..	..	21	13	..	24* 31*	..	..	..	..	5
Hokitika	14	..	..	..	31	1	2	..	19	5
Dunedin	31	..	..	..	..	1
Southland	0

The figures denote the days of the month on which one or more shocks were felt. Those with an asterisk affixed were described as *smart* shocks. The remainder were very slight and may have escaped record at some stations, there being no instrumental means employed for their detection. The only shock which damaged property was that at Christchurch on the 31st August.

NOTES ON THE WEATHER DURING 1870.

January.—Month marked by excessive rainfall in the extreme north and south of the Islands, and continued dry westerly winds about the central portion, especially on the West Coast; in the North there occurred a storm from N.W. on 28th and 29th, and on same date a severe thunder storm took place in the South from S.W., with heavy rain; at Bealey, 3·750 inches recorded on morning of 29th for previous 24 hours; in Southland, four heavy falls occurred—2·61 (4th), 3·02 (14th), 2·12 (29th), 1·09 (31st), the first three from S.E. and last from N.W. Aurora on 3rd, seen in North.

February.—The weather during the month generally very fine, but rather sultry, with slight rainfall, and on the whole moderate winds. The rainfall, however, in the South was excessive, but no severe gales are reported. At

Bealey, 3·790 inches of rain fell in 24 hours (on 11th), and on 20th, 2·010. Aurora observed on 12th, in South.

March.—Fine steady weather during the month, except on the South and West Coasts, where N.W. storms occurred in the first week. Brilliant Aurora was generally observed on the evenings of the 12th, 18th, and 22nd. Very severe gale at Southland on 5th, 6th, 7th, and 8th, with heavy rain, hail, thunder, and lightning.

April.—Severe weather for the season, especially in the southern parts of the Islands, where the rainfall was in excess of the usual average. Electrical storms were general in the early part of the month, and from 5th to 7th brilliant Auroras were observed. Snow fell at Christchurch on 27th, and hail on 1st, 4th, 26th, and 27th, and snow at Bealey on 1st, 4th, and 25th. At Hokitika, severe gale on 10th, with thunder and lightning; 5·59 inches of rain in 24 hours. Snow also at Dunedin on 25th and 26th, and hail on 1st, 2nd, and 26th.

May.—Stormy weather generally during the month. The rainfall has been above the average. Active eruption of Tongariro, with lava, during this month. Severe storm at Auckland on 8th and 9th from N.E., with slight rain; on the 8th the horizontal movement of wind for 24 hours previously was 1070 miles. At Nelson, 3·45 inches of rain recorded on 9th, during a storm from same quarter. At Bealey, thunder on 3rd, 15th, 16th and 28th, and 2·720 inches of rain registered on 16th; snow fell at that station on 2nd, 3rd, and 23rd. In Southland, on 15th, barometer fell from 29·9 to 28·9, followed by a heavy rainfall from S.E., causing flood.

June.—The weather during the month throughout the colony was generally wet and disagreeable, and in the South Island the rainfall was excessive; the winds were, on the whole, moderate; severe thunder storms occurred. On 15th, at Wellington, there occurred a severe hail, rain, and thunder storm—very large hail stones, loud thunder, and vivid lightning, with bitterly cold S.E. wind. Heavy rain on 25th at Bealey (2·360 inches in 24 hours), and snow on 15th and 23rd. Very heavy rain at Hokitika, especially on 25th, when 3·25 inches fell in 24 hours. Mild weather, but wet, in the extreme South, for the time of year.

July.—The weather was generally wet, stormy, and severe; frequent storms, with thunder, hail, and heavy rain, occurred; on 7th and 8th an earthquake was felt at several of the stations. Tongariro reported active. Strong gale in North from S.W., on 1st, with thunder, hail, and rain; also on 3rd to 10th very stormy from same quarter, with thunder and hail. Stormy weather at Bealey from 2nd to 4th, from S.W., also strong winds, with thunder and heavy rain, at Hokitika, on same dates.

August.—This month remarkable for the stormy weather and excessive rainfall in the northern part of the colony; while in the South and West



Districts the rainfall is much below the average. The atmospheric pressure during the month is lower than the average at every station ; the temperature of air being that usual for this month. On 5th and 6th, severe thunder storm felt at northern stations, with rain and hail. Snow occurred on eight days at Bealey ; snow also at Dunedin on 28th and 29th. Violent thunder storm on 31st at Southland, with heavy snow. Aurora observed on 22nd.

September.—Weather generally fine throughout the colony ; small rainfall, and winds moderate. Brilliant Aurora observed in North and South on 24th and 25th.

October.—Season all over the colony much drier than usual, but in the Northern Provinces amounting to a positive drought. At Bealey, however, on the 4th there was a storm from S.W., with rain, thunder, hail, and snow ; also a gale on 10th from N.W., and on 17th from same quarter, with rain and thunder ; snow also on 12th at this place. At Hokitika, wet southerly weather from 1st to 5th, with thunder. Aurora observed on 24th, 25th, and 26th, North and South. Meteor seen in North on 16th ; very brilliant.

November.—Generally fine during the month, with the exception of a storm, with electrical disturbance, that traversed the whole length of the Islands from N. to S. on 23rd and 24th. Temperature considerably over the average for same month in previous years ; rainfall only slightly in excess in the North, but deficient in the South ; at Nelson there was a long continued drought, with close dull weather, broken only by one day's heavy rainfall on 24th. Aurora observed in North on 19th, and in South on 23rd and 26th. Meteor seen on 20th in South Island.

December.—Very strong northerly winds in early part of month throughout the colony, accompanied at times with severe thunder, lightning, hail, and rain ; latter part of month was generally fine and pleasant at all the stations. Strong gale at Taranaki on 2nd from N., and on 5th from N.W., with thunder and rain ; hail on 4th. On 2nd severe thunder storm at Nelson from N., and on 6th thunder and lightning and strong wind from N.W., and heavy rain—2·30 inches fell in three hours. At Bealey, 4·640 inches recorded on 6th for previous 24 hours, and snow on 4th, 5th, and 6th ; on same dates at Hokitika, heavy gale from E.N.E., with thunder, hail, and rain ; and on 7th heavy squalls with large hailstones, wind N.W. Frequent Auroras observed in South, but most brilliant on 18th.

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