THE METEOROLOGICAL SERVICE OF CANADA.
DEPARTMENT OF MARINE AND FISHERIES.

THE TEMPERATURE AND PRECIPITATION OF BRITISH COLUMBIA.

By A. J. CONNOR, M.A.,
Climatologist of the Meteorological Service.

Published under the Direction of
R. F. STUPART, F.R.S.Can.,
Director of the Meteorological Service. Chief Office, Toronto.

Printed by J. de L. TACHE,
Printer to the King's Most Excellent Majesty.
OTTAWA, 1915.

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PREFATORY NOTE.

The demand for data concerning the climates of the provinces of Canada having exhausted the supply of pamphlets and brochures which I have during many years as Director of the Meteorological Service prepared for distribution both in Canada and abroad, I have been led on account of the impossibility of devoting sufficient of my time to this branch of a rapidly growing Service, to arrange for the publication of a series of booklets upon the climates of Canada under the editorship of A. J. Connor, the climatologist of this Service. All the data arising from meteorological observations in Canada during the last seventy years or more will be analysed and published in synoptical form with comment. This, the first of these booklets, dealing with the temperature and precipitation of British Columbia, will be followed as soon as possible by a similar publication dealing with the data of the Northwestern Provinces, and in due time by others concerning the remaining provinces of the Confederation.

R. F. STUPART,
Director of the Meteorological Service.

Meteorological Office,
Toronto, April 1915.

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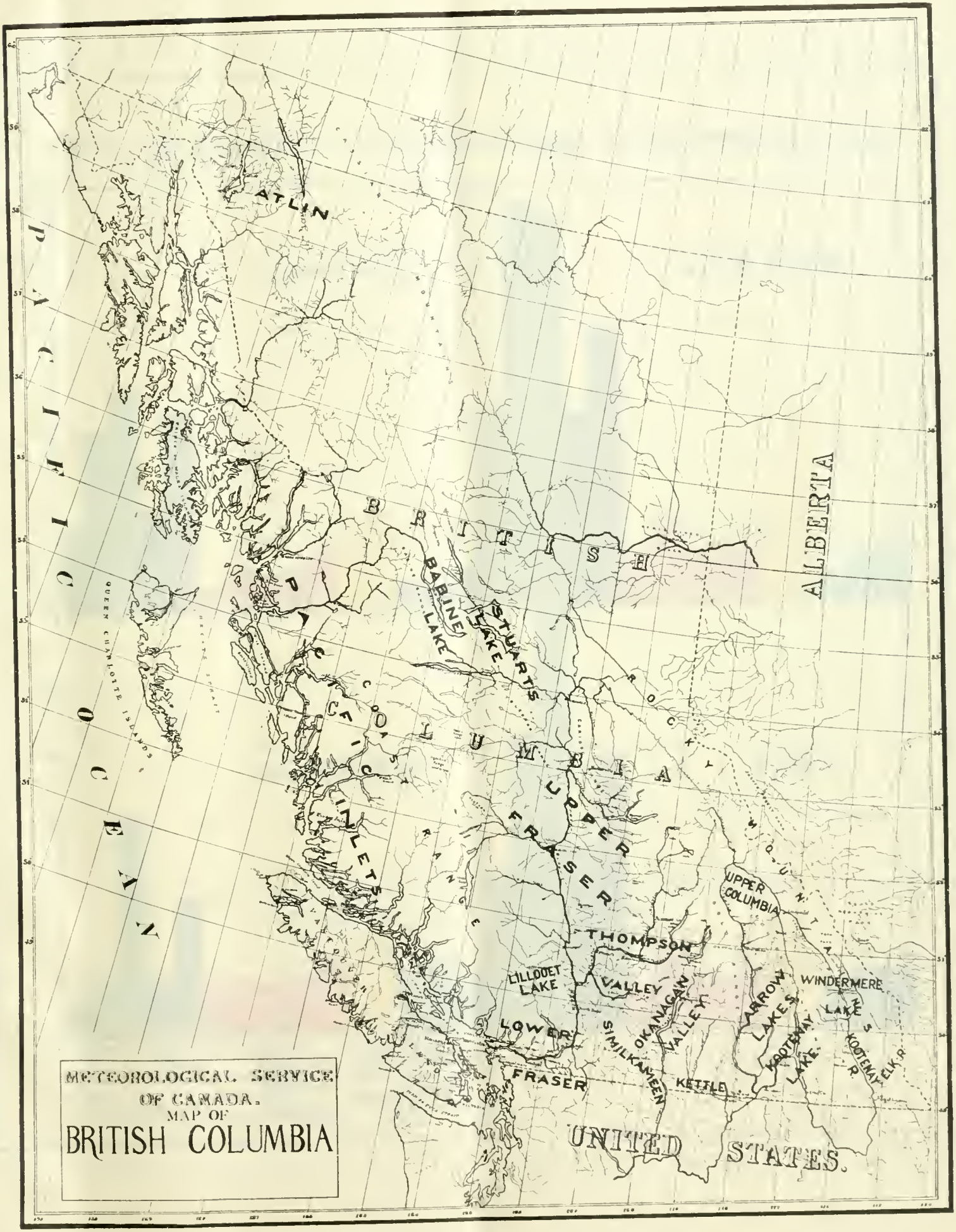
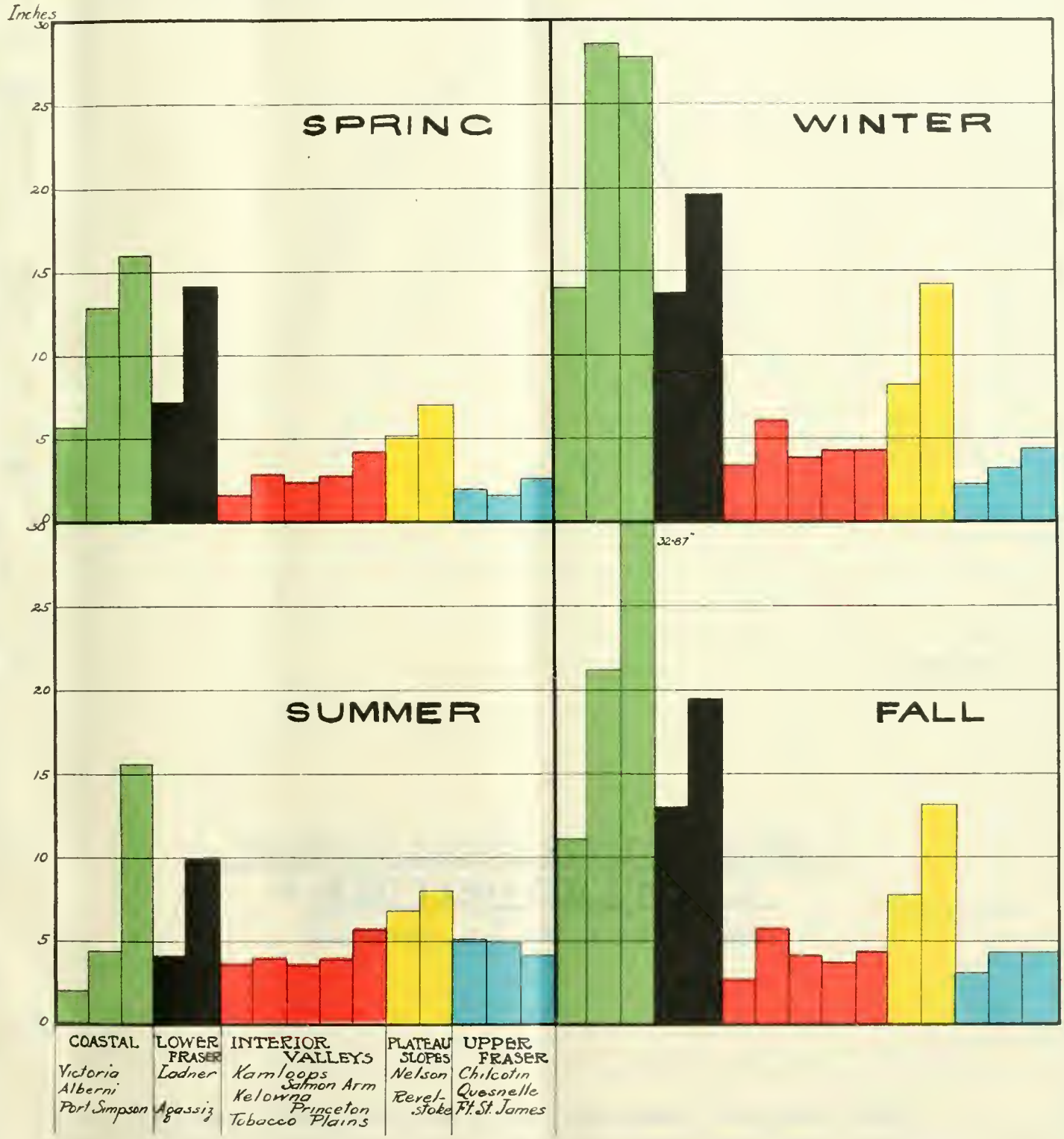
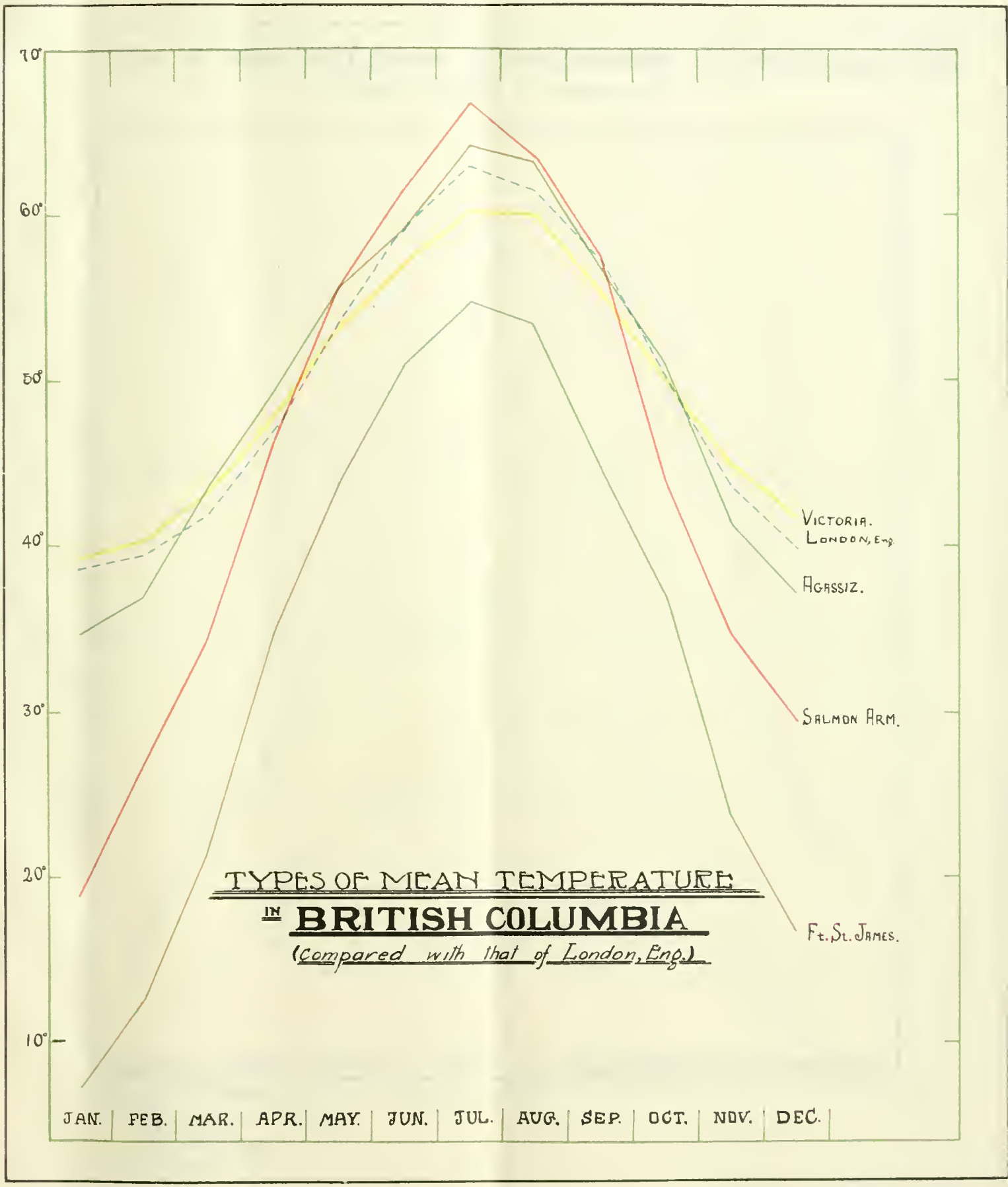

METEOROLOGICAL SERVICE
OF CANADA.
MAP OF
BRITISH COLUMBIA
PACIFIC OCEAN
QUEEN CHARLOTTE ISLANDS
ATLIN
BRITISH COLUMBIA
ALBERTA
BABINE LAKE
STUARTS LAKE
PACIFIC COAST INLETS
COAST RANGE
ROCKY MOUNTAINS
UPPER FRASER
UPPER COLUMBIA
THOMPSON
LILLOOET LAKE
VALLEY
OKANAGAN VALLEY
WINDERMERE LAKE
ARROW LAKES
KOOTENAY LAKE
KOOTENAY R.
ELK R.
LOWER FRASER
SIMILKAMEEN
KETTLE
UNITED STATES.

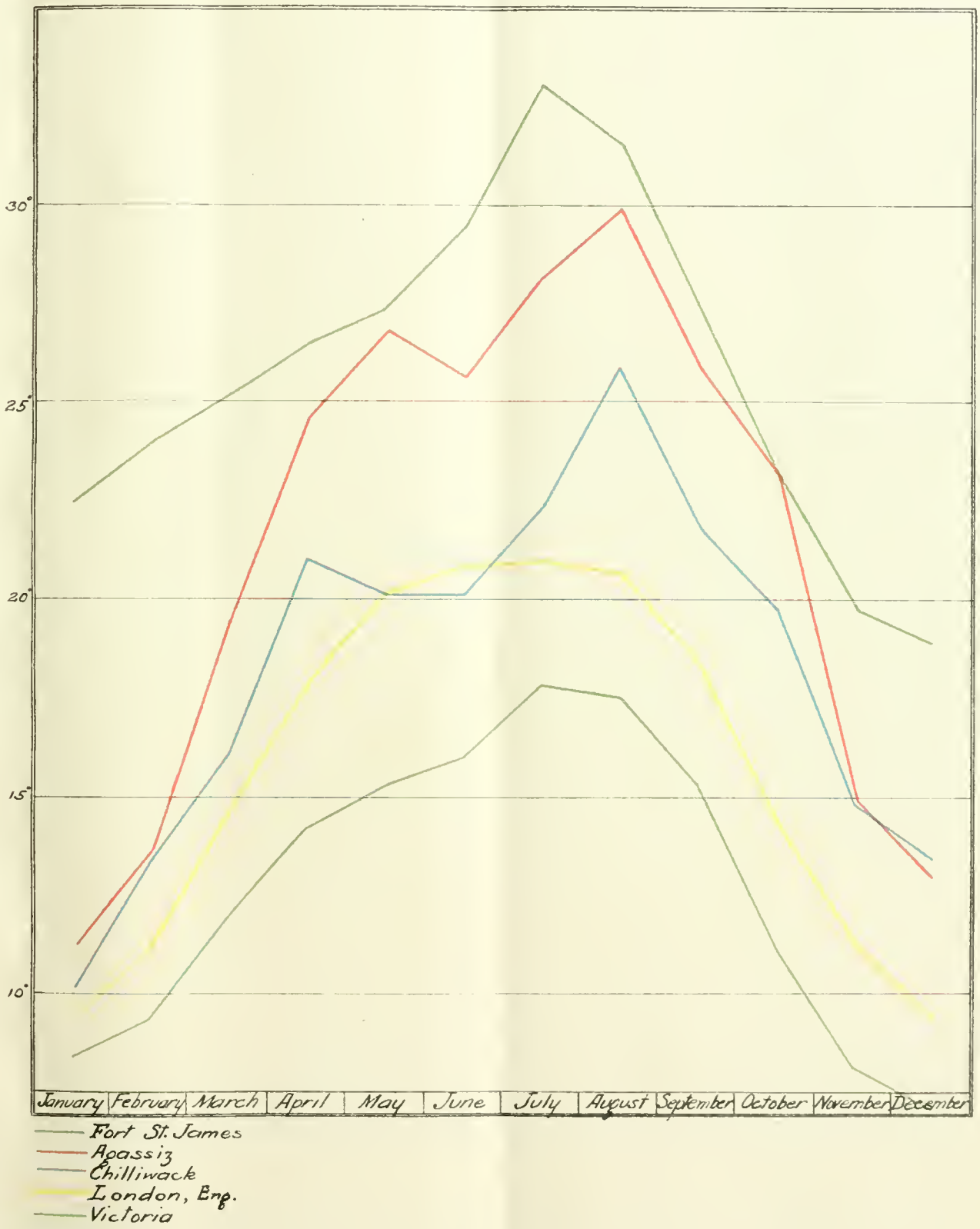
TYPES OF SEASONAL PRECIPITATION IN BRITISH COLUMBIA




70°
60°
50°
40°
30°
20°
10°
JAN.
FEB.
MAR.
APR.
MAY.
JUN.
JUL.
AUG.
SEP.
OCT.
NOV.
DEC.
VICTORIA.
LONDON, Eng.
AGASSIZ.
SALMON ARM.
FT. ST. JAMES.
TYPES OF MEAN TEMPERATURE
IN BRITISH COLUMBIA
(Compared with that of London, Eng.)

TYPES OF MEAN DAILY RANGE OF TEMPERATURE IN BRITISH COLUMBIA.

(Range at London for comparison.)



PART I.

The Temperature and Precipitation of British Columbia.

The province of British Columbia is pr ëminently a country of mountain and valley. The great ranges are the Rocky Mountains, which separate it from Alberta, the Selkirks, the Gold and the Cariboo in the lower interior, the Cassiar Mountains in the far north, and the Coast Range which slopes towards the Pacific Ocean, and is, itself, parallelled by the partially submerged Island Range, which appears as Vancouver Island and Queen Charlotte Islands. In every depression there is to be found a stream of tortuous course, here and there broadening out into one of the lakes or arms which form such a distinguishing feature of the country. Many of these valleys are broad and fertile for they form the channels of all the principal rivers of the Pacific Coast of North America except the Colorado. But many of the smaller valleys, especially those of tributary streams, and the constricted portion of the Fraser Valley, afford for agriculture only a narrow strip, known colloquially as "bench-land", on either bank. Mining and lumbering, however, flourish in such districts. On the coast-line similar depressions are open to the sea and form the magnificent fiords of British Columbia, which surpass in grandeur those of Norway or of Scotland, steeply rock-walled and winding mazily far into the interior.

The mountains, although they have so enormously reduced the arable area of the province, do to a certain extent make amends by their protection of the valleys from the severe cold waves which prevail in the same latitudes on the plains of the Northwest provinces: and on the other hand by their resistance to the eastward movement of the moisture-laden winds from the Pacific Ocean. By compelling the ascent of these saturated air-streams up their western slopes, they not only increase the rate of precipitation but they set free much of the latent heat of vaporization, and so warm the valleys as the drier air is forced down the eastern slopes. Naturally, the maximum benefit from these considerations accrues to those valleys which lie nearest the Ocean, and, besides, some depressions are so peculiarly situated that the precipitation is largely deposited upon the higher levels, the low levels remaining comparatively dry. But even in these less advantageous situations the run-off from the higher levels ultimately finds its way to natural reservoirs in the bottoms. From these reservoirs seepage provides natural irrigation for the bottom lands while artificial irrigation may be employed to water soil above the seepage-action. In some districts, as in the Upper Columbia valley, seepage has turned the low-lying land into marshes, but this has been successfully reclaimed by dyking.

Observations of temperature and precipitation have been made in British Columbia at stations of the Meteorological Service of Canada for many years, the bulk of the data, however, not antedating the year 1900. Few stations have maintained an unbroken record, and the greater number have very short periods of record. In the analysis of the results of these observations which is to be found in the following pages, it was decided to group the stations by valleys and the monthly data by seasons.

In the grouping by valleys a station at a higher level or at a valley junction, which could be assigned to either one of two valleys, was assigned to that one to which its most distinctive climatological characteristic seemed properly to link it.

In the grouping by seasons it was decided to take winter as the months of December, January and February; spring as March, April and May; summer as June, July and August; fall as September, October and November. This consideration of the data by seasons avoids that confusion of detail which is coincident with the examination of the twelve months individually, but the monthly figures are to be found in the tables of Part II.

The general results of this analysis as regards mean daily temperature and total precipitation of the four seasons are tabulated below.

MEAN TEMPERATURE.

District.	Winter.	Spring.	Summer.	Fall.
	degrees.	degrees.	degrees.	degrees.
Vancouver Island—				
West Coast	39	45	55	49
East Coast	38	48	61	49
Lower Fraser	37	48	61	49
Thompson River	25	46	63	45
Southern Kettle	24	45	62	43
Okanagan	26	46	64	46
Similkameen	24	46	64	44
Okanagan River-Osoyoos	24	52	73	52
Arrow and Kootenay Lakes	27	44	61	44
Elk and Kootenay Rivers	20	41	59	41
Tobacco Plains	25	44	63	43
Windermere Lake	18	41	59	39
Illecillewaet—Upper Columbia	15	39	58	39
Upper Fraser to Babine Lake	12 to 24	33 to 47	52 to 66	35 to 45
Pacific Coast—Queen Charlotte Islands	33	44	58	46
Atlin	7	31	51	34

In the Similkameen Valley below Keremeo it is probable that the same very hot summers prevail as are shewn by the temperatures for Fairview which are the basis of the figures given for the Okanagan River-Osoyoos Lake district.

Along the Elk and Kootenay rivers, the stations at Cranbrook, Ft. Steele, Fernie, and Gateway, are all cooler throughout the year than stations in the West Kootenay, but the station at Fruitlands Farm, east of Elko and Flagstone, on Tobacco Plains has a different climate and is listed under the latter name.

SEASONAL PRECIPITATION.

District.	Winter.	Spring.	Summer.	Fall.
	Inches.	Inches.	Inches.	Inches.
Vancouver Island				
West Coast	45	25	10	35
East Coast	18	9	4	15
Lower Fraser	21	12	6	21
Thompson River				
Kamloops—Nicola	3	2	3	2½
Salmon Arm—Shuswap	6	3	4½	6
Griffin Lake	12	6½	7½	8
Southern Kettle Valleys	3	3½	4½	3½
Okanagan Valley	3	2½	4	3
Similkameen	2½	2¼	3	3
West Kootenay	8½	5½	6	7½
East Kootenay	4½	4	4	4½
Windermere Lake	2¼	2½	5¼	3½
Illecillewaet—Upper Columbia	13	6	6	11
Upper Fraser—Babine Lake	5	4	6	5½
Coast—Queen Charlotte Islands	33	19	13	38
Atlin	3	1½	3	3½

VANCOUVER ISLAND.

TEMPERATURE.

Seasonal Mean Temperature

The averages derived from observations made at Carmanah, Clayoquot, Quatsino and Cape Scott, when compared with those from observations made in the interior and at points on the east coast shew that the summers are from 5° to 10° cooler on the west coast. Spring is 3° warmer on the east coast and in the interior while winter and fall are practically the same. It may be seen from the table here given, however, that the stations on the west coast do shew the effect of latitude, in winter, Quatsino and Cape Scott having a mean temperature for the season about 2° cooler than that of either Carmanah or Clayoquot to the south.

Station.	Winter.	Spring.	Summer.	Fall.	Year.
	degrees.	degrees.	degrees.	degrees.	degrees.
Carmanah	40	45	55	49	47
Clayoquot	41	46	57	50	49
Quatsino	38	45	56	48	47
Cape Scott	38	43	54	48	46
Means	*39*	*45*	*55*	*49*	*47*
Thetis Island	37	47	60	48	48
Alberni	36	48	63	50	49
Cowichan	38	48	61	50	49
Quamichan	37	48	61	49	49
Kuper Island	37	47	61	49	49
Nanaimo	38	48	62	50	49
French Creek	37	46	60	47	48
Victoria	40	48	59	50	49
Means	*38*	*48*	*61*	*49*	*49*

Temperature Extremes

The interior and eastern littoral stations are subject to greater extremes of temperature than the western littoral. Temperatures of 90° are of very rare occurrence on the west coast but inland and at stations on the Gulf of Georgia maxima of 95° and higher do frequently occur. Alberni has recorded 99° in June, 103° in July, 106° in August and 101° in September. This station, although called Alberni, in the publications of the Meteorological Service, is really situated at Beaver Creek, inland from the Alberni canal and at a considerable elevation above sea-level. It has exhibited some very peculiar fluctuations from its established monthly normal temperatures.

In the interior and on the east coast, including Esquimalt and Victoria, temperatures below zero have been recorded at long intervals. In the year 1895, February, 1.5° below zero was the minimum at Victoria. In 1886, 1887 and in 1890, temperatures from 1° to 3° below zero were recorded at Quamichan. At Carmanah, on the other hand, the two lowest temperatures on record are 4° above zero and 6° above zero.

Extreme Variation of Monthly Mean Temperature

Although the area of Vancouver Island is great enough to warrant the supposition that stations in the interior would shew relatively great variations in monthly temperatures, while littoral stations would display but small amplitudes of variation, yet the collected results of observations fail to make this manifest.

Differences in degrees between the temperatures of the warmest and the coldest month of the same name are as follows:—

—	Nanaimo.	Quamichan.	French Creek.	Cowichan.	Clayoquot.	Carmanah.	Cape Scott.	Quatsino.
December	4	12	6	7	7	6	6	9
January	10	13	5	9	8	4	13	9
February	11	17	6	6	8	7	6	7
March	8	10	8	7	7	9	10	9
April	8	10	8	5	4	5	7	5
May	6	7	5	5	7	3	5	5
June	5	8	6	5	6	5	2	5
July	8	6	6	4	8	5	4	6
August	7	9	9	4	7	5	3	7
September	4	8	10	12	6	3	5	4
October	7	6	6	7	5	8	5	5
November	6	7	14	7	7	13	13	4

The observations from which these tables were made, however, cover varying periods of time, some extending back to the cold winters of the late eighties and early nineties, while others do not. Synchronal observations for a long period might confirm the supposition. The Table serves, however, to give a general view of the absolute range of monthly temperatures over the whole island.

Average Mean Daily Range of Temperature

The table given below shews that the daily range is greater on the east coast and in the interior than on the west coast; since even over the small area, comparatively, of Vancouver Island, the modifying influence of the ocean is not powerful enough to obliterate the tendency to extremes engendered over land. Proximity to the continental land across the strait of Georgia prevents stations situated similarly to Nanaimo and French Creek from exhibiting true littoral characteristics in this respect. Another factor which increases the daily range of temperature on a portion of the island is situation on the slope facing the strait. By intercomparison of the ranges at Nanaimo on the shore with those of Quamichan, beyond which the slope rises to the westward while to the eastward lie a portion of the main island, and the considerable land areas of Salt Spring, Pender, Saturna, Mayne and Galiano Islands, and those of Cowichan very nearly at the crest of the slope, we arrive at the conclusion that the effect of a situation on the slope running down to the strait of Georgia is to increase the daily range by about 8° during the months of May to September inclusive. During the same period the daily range at Victoria is increased by 6° over that of stations on the unprotected west coast. In this connection it may be observed that the temperatures at Victoria shew that it occupies a more or less mean position between the true maritime type of the west coast and the land-influenced type of the interior and of the strait of Georgia.

	Average Mean Daily Range of Temperature.								
	Quatsino.	Cape Scott.	Carmanah.	Nanaimo.	Quamichan.	Kuper Island.	Victoria.	French Creek.	Cowichan.
December	9	10	8	8	17	10	7	9	7
January	9	10	9	10	16	11	8·5	10	10
February	9	9	9	11	17	13	9	13	14
March	10	11	12	15	22	16	12	17·5	17
April	13	13	13	15	22	19	14	20	21
May	12	12	12	18	25	23	15	20	21
June	13	11	13	18	28	22	16	20	21
July	14	10	11	19	33	26	18	23	24
August	15	11	13	19	31	25	18	24	18
September	11	12	12	16	29	20	15	21	17
October	11	14	8	13	24	15	11	16	13
November	9	9	9	9	20	12	8	11	9
Means	*11·5*	*11·3*	*11·0*	*14·3*	*23·7*	*17·7*	*12·6*	*17·1*	*17·7*

The annual mean of the average daily range at Quatsino, Cape Scott, Carmanah, and Victoria is, therefore, 11·6° and at the other stations, all in the interior or on the east coast, 18·1°.

Mean Daily Maximum and Minimum.

The table appended will shew that the distinction between western littoral stations and inland-eastern stations in this regard is not the depression of the minimum but the elevation of the maximum points on the daily curve of temperature in the summer months, June, July, and August.

	Mean Maximum.	Mean Minimum.
Quamichan	76·7	45·9
Cowichan	71·3	50·4
Kuper Island	72·9	49·1
Alberni	77·6	48·4
Nanaimo	71·4	52·4
French Creek	70·7	48·5
Means	*73·4*	*49·1*
Clayoquot	65·4	48·6
Carmanah	62·1	48·5
Quatsino	63·4	49·2
Cape Scott	59·7	48·6
Victoria	67·7	50·5
Means	*63·7*	*49·1*

The depression of the minimum on the west coast is, therefore, 0° but the elevation of the maximum in the interior-east coast is 9.7°. In the winter months, December, January, February, although the minimum is depressed 3.2° at the eastern-interior stations below that of the western

littoral stations, the depression of the maximum is not proportional, being only 1°. The winter figures follow:—

	Mean Maximum.	Mean Minimum.
Quamichan	45·1°	28·7°
Cowichan	42·5	32·1
Kuper Island	44·5	33·5
Alberni	41·9	30·5
Nanaimo	42·7	33·2
French Creek	42·8	32·0
Means	*43·3.*	*31·7*
Clayoquot	46·5	35·0
Carmanah	44·4	35·6
Quatsino	42·7	33·8
Cape Scott	43·4	33·8
Victoria	44·5	36·2
Means	*44·3*	*34·9*

PRECIPITATION.

Average Seasonal and Annual Precipitation.

Precipitation on both the west and east coasts does, in general shew the same proportional seasonal distribution. This proportion appears to be, roughly, winter, spring, summer, fall, in the ratio, 10:5:2:8. But while the annual amount on the west coast averages nearly 110 inches, on the east coast it is about 40 inches only.

—	Nanaimo.	Kuper Island.	Quamichan.	Goldstream L.	Cowichan.	French Creek.	Alberni.	Denman Island.	Carmanah.	Cape Scott.	Quatsino.	Clayoquot.	Victoria.
Winter	18·54	19·44	16·41	30·56	18·34	14·92	28·72	18·83	45·01	42·87	41·06	44·05	13·95
Spring	7·00	7·28	8·14	11·77	5·92	5·94	12·82	7·64	26·36	23·76	22·62	25·07	5·58
Summer	3·49	3·21	2·54	3·53	2·92	3·76	4·41	3·49	7·02	9·01	11·45	9·79	1·94
Fall	13·93	13·06	10·89	21·46	13·01	14·54	21·22	19·44	31·37	43·08	35·91	39·43	6·46
Annual	42·96	42·99	37·98	67·32	40·19	39·16	67·17	49·40	109·74	116·02	111·04	118·34	32·49
Snow	25	33	40	70	26	29	52	14	19	1 (?)	27	14	14

The snowfall is included in the seasonal and annual figures, which embrace the precipitation from all causes. The anomalous totals are those for Goldstream Lake, Alberni and Victoria. Goldstream is not far from Victoria, but inland and at a great elevation, evidently high enough to precipitate moisture from the Pacific winds in the spring, fall, and winter at nearly the same rate as the west coast stations. Victoria has shewn in recent years a considerable diminution in rainfall; in fact the exposure of the instrument has undoubtedly been faulty. For when the gauge was at Esquimalt, about three miles westward, the observations would fix the annual precipitation at about 42 inches or the same as that of Kuper Island or Nanaimo. Observations at Alberni (Beaver Creek) are made five miles due north of Alberni town and at an elevation of approximately 300 feet. Another, but much shorter, set of observations was made at Alberni (Sumas River), apparently on the canal and practically at sea-level. Thirty-five miles to seaward, down the Sound from Alberni is Banfield where another set was made. A comparison of these three series is interesting.

	On Sea, Banfield.	35 miles from Sea Alberni (Sumas River.)	40 miles from Sea (300′) Alberni (Beaver Creek.)
Winter	36·68	29·32	28·72
Spring	16·83	13·61	12·82
Summer	4·60	3·26	4·41
Fall	32·78	27·03	21·22
Annual	90·89	73·22	67·17

The gradually decreasing precipitation as we go inland from the ocean and up the Sound, which is most apparent in the annual amounts is also shewn in every seasonal amount except that for summer. We are led to the conclusion that the situation of Beaver Creek at the head of a Sound, looking seaward from an elevation, gives it a littoral precipitation, although we have already seen that it is far enough inland to have a temperature which places it in the list of interior stations.

THE VALLEY OF THE LOWER FRASER.

TEMPERATURE.

Seasonal Mean Temperature

The averages for the seasons in this valley are almost identical with those from the east coast of Vancouver Island. Vancouver although on Burrard Inlet is included in this valley on account of the general similarity of its climate.

	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Vancouver	37	48	62	49	49
New Westminster	37	48	61	49	49
Ladner	37	47	61	49	48
Steveston	37	46	59	48	48
Matsqui	36	48	61	49	48
Agassiz	36	49	62	50	50
Chilliwack	37	49	62	50	50
North Nicomen	37	49	62	50	50
Means	*37*	*48*	*61*	*49*	*49*

In the summer of 1908 an observer was appointed at Pemberton Hatchery on Lillooet Lake, and later one at Pemberton Meadows. While these stations were at first listed in the Monthly Weather Review with the Lower Fraser Stations, they really have a different climate as the following six-year averages for the former station shew.

Pemberton Hatchery	Winter	Spring	Summer	Fall	Annual.
	26°	44°	61°	45°	44°

The summer season has practically the same temperature as the main valley, but the situation nearly 2° of latitude to the north and in a narrow valley running in a general north and south direction depresses the winter mean more than 10°, and the spring and fall means by about 5°.

Temperature Extremes

Temperatures of 90° have been registered at Agassiz every year since 1889 except in the year 1909 when the highest was 88°. In July 1898 100° was recorded and 103° in August of the same year. In ten out of twenty-five years 95° has been reached or exceeded. 98° has been recorded at Chilliwack, 99° at North Nicomen, 97° at Matsqui, 94° at New Westminster, and 92° at Vancouver. At Ladner and Steveston, however, 85° has not yet been exceeded. In fact high maxima are not nearly so frequent at stations near the mouth of the Fraser in the summer.

Temperatures below zero occasionally occur in January, at points some distance from the coast falling to 10° below zero. The mean of the extreme lowest readings in Januaries for twenty five years at Agassiz, is 10° above zero : the mean of the extreme highest temperatures of the same month for the same period is 52°: a non-periodic range of 42°. At Vancouver, which is 62 miles west of Agassiz, as the crow flies, and on the coast of the mainland, the corresponding figures are 50° and 16°, a non-periodic range of 34° only.

Extreme Variation of Monthly Mean Temperatures

The records at Agassiz and New Westminster covering practically the same period of about 25 years, the differences between the warmest and coldest months of the same name at these two stations present a fair idea of the amplitude of variation.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Agassiz	16	17	13	11	11	10	13	16	8	8	12	12
New Westminster	14	9	11	7	7	6	7	9	7	10	17	11

The greater variations appear to occur at the greater distance from the coast, and the records from the other stations do, in a general way, confirm this, although the lack of synchrony between the different series of observations is inhibitory to definite conclusions. A comparison of the

figures above with the similar table given for Vancouver Island shews that the magnitude of this variation is considerably smaller on the Island, especially in the summer months.

Average Mean Daily Range of Temperature

	Winter.	Spring.	Summer.	Fall.
	degrees.	degrees.	degrees.	degrees.
Vancouver	9	16	21	13
New Westminster	9	18	21	14
Ladner	10	18	20	16
Steveston	11	15	18	25
Matsqui	12	19	23	16
North Nicomen	10	18	22	14
Chilliwack	12	19	23	19
Agassiz	13	24	28	21

While these ranges are in general considerably greater than those which obtain on Vancouver Island it is noteworthy that not until we have gone so far up the river as Agassiz do we find ranges comparable in magnitude with those at Quamichan on the eastern slope of the Island: and while the annual range at Quamichan is 27.3°, at Agassiz it is only 21.3°. This statement ignores the summer ranges at Hazlemere, three miles from the International Boundary and the same distance from Boundary Bay. It is not strictly in the valley of the Fraser and the record is short.

Mean Daily Maximum an Minimum.

	Summer.		Winter.	
	Mean Minimum.	Mean Maximum.	Mean Minimum.	Mean Maximum.
	degrees.	degrees.	degrees.	degrees.
Vancouver	51	73	33	42
New Westminster	51	72	32	42
Ladner	50	70	32	42
Steveston	50	68	32	43
Matsqui	50	73	30	41
North Nicomen	51	73	32	42
Chilliwack	51	74	31	43
Agassiz	48	76	30	42
Means Lower Fraser	*50*	*72*	*31·5*	*42*
Means Vancouver Island (interior-east)	*49*	*73*	*32*	*43*
Means Vancouver Island (west coast)	*49*	*64*	*35*	*44*

If the figures for Ladner and Steveston, the two stations on the low-lying delta at the mouth of the river be omitted, the summer maximum for the lower Fraser becomes 73.5°, undoubtedly a truer approximation, and shewing the slight margin over the maximum for the interior of the Island, which would naturally be expected from topographical considerations.

The figures for Agassiz give some indication that at this point we begin to approach the easterly limits of the climatic district. East of this place, however, the only observations that have been made are those from Little Mountain (Hope P.O.) and these began in 1910. This record-period is too short to determine an average but we may note that for the winter months the mean minimum is 26° and the maximum 35°, while for the summer months the corresponding figures are, 51° and 74°. We may therefore, place the eastern limits of the lower Fraser River valley, climatographically, as not far from this last-named point, Hope, which lies at the confluence of the Coquihalla with the Fraser.

PRECIPITATION.

The most striking fact to be learned from the results of observations is that the least precipitation in the district is recorded at the very mouth of the river. Ladner and Steveston lie on either side of the South Arm of the Fraser where it debouches into the Strait of Georgia. The country immediately surrounding these stations is delta-land. Here the annual precipitation is little more than half that to which the higher land to the east is subject. At New Westminster on the North Arm and at Vancouver on Burrard Inlet, however, this comparative deficiency of precipitation does not obtain. It should be noted that Hazlemere, already mentioned with regard to temperature and lying about three miles north of Blaine, Washington, presents a somewhat similar falling-off in precipitation as Ladner and Steveston, but not to the same extent. Sixteen years of observation at Langley prairie, also shew that at that point the annual

Average Seasonal and Annual Precipitation (in inches)

precipitation is about six inches less than the general average. It is much to be regretted that observations were not made at a greater number of points south of the river. Those we have, however, point to the probability that the region extending from the Delta country about Ladner into the prairie district south of the Fraser is subject to less precipitation than points on the river and its north arm, the difference diminishing as we move eastward through the prairie country towards Sumas Lake.

	New Westminster.	Vancouver	Chilliwack.	Langley.	Matsqui.	Ladner.	Steveston.	N. Nicomen.	Chilliwack.	Agassiz	Harrison.
Winter	22 54	22 34	26 79	20 11	20 40	13 61	11 29	26 40	22 23	19 80	18 43
Spring	12·01	11 11	13 79	11 24	14 12	7 20	6 80	15 68	12 08	11 22	11 91
Summer	6 06	5 86	6 59	6 34	6 97	4 00	3 96	8 00	5 98	9 83	5 25
Fall	18 16	21 26	24 48	16·28	18 36	13 03	12 87	32 20	19 37	19 37	13 32
Annual	58 80	60 57	71 65	53 97	60 15	37 84	38 02	82 28	60 66	62 01	48 91
Snow	31	25	18	30	26	20	17	38	34	42	22

Note — Snowfall is already included in the seasonal amounts, and annual total.

Annual Variability of Precipitation.

Twenty-five years of observation at Agassiz give us an annual average of 63 inches precipitation. During this period the driest year shewed a deficiency of 16 inches as compared with the average, and the wettest year an excess of 20 inches. The differences from average throughout this period having been summed without regard to sign, we strike a mean annual variability of 8 inches, or 13% of the average amount. Practically the same period at New Westminster presents an average of nearly 59 inches for the annual amount. During this time the greatest yearly amount exceeded the average by 13 inches and the least yearly amount was in defect 17 inches. The mean annual variability is found to be 5 inches or 9% of the annual average. It seems a fair deduction that the annual variability for the region lying between these two stations is about 10% of the annual average.

THE MIDDLE FRASER.

It has already been said that the records made at Hope, at the junction of the Fraser and Coquihalla rivers, indicate that the climate at this point is somewhat different from that of the region we have styled the Lower Fraser Valley. At this confluence the river-course turns sharply north and fifteen miles further in that direction passes Yale, the head of navigation. Between Hope and Spence's Bridge no records are available, and therefore, no data concerning the climate of Yale can be given here. The "Year Book of British Columbia" does, however, state that it possesses "Limited but excellent fruit-growing possibilities". Beyond Yale for fifty miles the river-valley continues northward to Lytton, where is the confluence with the Thompson. A great part of this course is canyon-like in character, with the Snowy Group on the west side, and the Anderson River Mountains, the Stoyoma and Kanaka Mountains on the east side. At a point about five miles below Lytton the basin widens, but there is very little "bench-land" throughout the valley. For all this district, of no great importance agriculturally, climatographic data is lacking.

THE THOMPSON RIVER VALLEY.

TEMPERATURE.

Seasonal Mean Temperature

By this name we designate the country about the Thompson river from Spence's Bridge to Shuswap Lake, including Nicola Lake, which drains into the Thompson at Spence's Bridge, and also Shuswap River. In this region the winters are 12° colder than in the lower Fraser valley, while the summers are 3° warmer. At Nicola Lake, however, the summer temperature differs little from that of the southern valley, while the spring and fall are somewhat cooler than at Kamloops.

—	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Enderby	25	45	63	43	44
Spence's Bridge	25	50	68	49	48
Nicola Lake	24	43	60	43	42
Kamloops	26	48	67	47	47
Salmon Arm	25	45	64	44	45
Means Thompson	*25*	*46*	*63*	*45*	*45*
Means Lower Fraser	*37*	*48*	*61*	*49*	*49*
Difference	*- 12*	*- 2*	*+ 3*	*- 4*	*- 4*

The North Thompson.

Early in the year 1913 an observer at Vavenby, sixty-five miles north of Kamloops, on the North Thompson ten miles east of its confluence with the Clearwater, began to send in monthly reports of temperature and precipitation. While the observations have not progressed long enough to establish normal values for this northerly region, a month to month comparison with stations of ten-year records on the South Thompson enables us to present the following figures as a very likely approximation to the normal seasonal temperatures at Vavenby.

	Winter.	Spring.	Summer.	Fall.	Annual.
Vavenby	22°	44°	62°	43°	43°

If we may rely upon these figures, the temperatures on the north branch of the Thompson differ very little from those at Enderby, except that the winters are slightly colder.

Temperature Extremes.

From the latter part of May to the middle of September maximum temperatures ranging from 90° to higher than 100° are very likely to occur on several days. 102° has been recorded in June, July, and August at Enderby, and 97° in May; at Salmon Arm 101° in July and 91° in May; 100° to 102° at Kamloops in all months from May to August, and 92° in April and September. At Spence's Bridge 105° was registered on the 20th of July 1883. Nicola Lake does not appear to be subject to such extreme heat as the other stations, since 93° is the highest on record at that point. It has recorded 91° in May and 86° in September. At Griffin Lake, east of Anstey Arm 108° in June, and 110° in July and August have been registered.

In the winter months the lowest on record at Nicola Lake ranges from 8° below zero in December to 41° below in January, while 19°, 31° and 25°, below, have been registered in November, February and March, respectively. At Salmon Arm the absolutely lowest is 27° below zero; at Kamloops, 31° below; at Enderby, 27° below; and at Spence's Bridge 29° below. In February 1914, 24° below was registered at Vavenby, but the records at that point date only from 1913. At Griffin Lake a short record shews a minimum of 28° below.

Looking at the temperature extremes from another view-point we may consider only the extreme highest and extreme lowest temperature of a single month throughout a period of years, and strike an average of each. The difference between the two averages is the non-periodic range for that particular month. We may take Kamloops records for 23 years and treat them in this manner. The results follow.

—	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	degr	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.
Average of the upper monthly extreme	49	50	62	75	85	91	97	95	82	70	57	48
Average of the lower monthly extreme	- 9	- 5	11	26	33	41	47	41	34	26	12	1
Non-periodic range	58	55	51	49	52	50	50	51	48	44	45	44

Extreme Variation of Monthly Mean Temperature

The difference in degrees between the warmest month and the coldest of the same name is given in the table below.

Station	Dec.	Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.
	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.
Salmon Arm.	9	20	15	13	7	7	10	12	7	10	8	21
Nicola Lake	16	31	24	20	7	8	10	10	11	7	11	29
Spence's Bridge	11	29	12	18	4	8	6	7	9	6	7	14
Enderby	13	17	11	15	6	7	12	6	11	5	4	21
Kamloops	14	31	20	18	9	8	9	12	14	9	11	31
Means	*13*	*26*	*16*	*16*	*7*	*8*	*9*	*9*	*10*	*7*	*8*	*23*
Extremes	*16*	*31*	*24*	*20*	*9*	*8*	*12*	*12*	*14*	*10*	*11*	*31*

These results tend to shew that the monthly temperature is less variable from year to year in this district in the summer-time than it is at Agassiz, and in this respect the amplitude is more comparable with the extreme variation from April to September at New Westminster. In the winter the variation is considerably greater in the Thompson district than in the Lower Fraser Valley.

To examine this point still further we select the month of July at both Agassiz and Kamloops and compute the variations of the mean temperature of this month from the average. We find that the average variation from the established normal July temperature is 3° at Agassiz and 2° at Kamloops, a result which verifies the first deduction. Treating the monthly temperatures of January in the same way, we have an average monthly variability of 3° at Agassiz but of 6° at Kamloops.

Average Mean Daily Range of Temperature

The summer ranges apparently increase as we proceed in an easterly direction along the river while the figures for Vavenby indicate that a similar increase obtains as we go north on the tributary. The daily ranges in this district exceed those along the Lower Fraser; by 6° in the spring and in the summer.

	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Kamloops	11	23	25	17	19
Spence's Bridge	17	23	26	19	21
Nicola Lake	15	23	25	20	20
Salmon Arm.	12	23	28	19	21
Enderby	15	27	31	23	23
Vavenby	18	25	31	21	24

Mean Daily Maximum and Minimum.

In the discussion of the seasonal mean temperatures it was seen that the mean temperature of the Thompson Valley in the summer was 3° warmer on the average than the Lower Fraser Valley. The table given below shews that this is due entirely to the elevation of the maximum by 6°, the minimum remaining constant. In the winter, however, both elements are depressed, the minimum more than the maximum.

	Summer.		Winter.	
	Mean Maximum.	Mean Minimum.	Mean Maximum.	Mean Minimum.
	degrees.	degrees.	degrees.	degrees.
Kamloops	80	55	31	20
Spence's Bridge	81	55	32	15
Nicola Lake	72	47	31	16
Salmon Arm	78	50	31	19
Enderby	79	48	32	17
Vavenby	78	47	31	13
Means Thompson.	*78*	*50*	*31*	*17*
Means Lower Fraser	*72*	*50*	*42*	*32*
Difference	*+ 6*	*0*	*- 11*	*- 15*

PRECIPITATION.

A great portion of this valley is a very dry district. Except at the eastern limit of the valley the annual precipitation has never exceeded 20 inches. The average seasonal amounts follow. Average Seasonal Precipitation

	Winter.	Spring.	Summer.	Fall.	Annual.	Snow.
Kamloops	3·25	1·61	3·55	2·58	10·99	35
Spence's Bridge	2·84	2·13	2·06	1·94	8·97	28
Nicola Lake	2·59	2·31	3·51	3·17	11·38	29
Salmon Arm	6·06	2·87	3·96	5·67	18·56	62
Enderby	6·51	3·19	4·84	5·95	20·49	67
Vavenby					12·15	
Griffin Lake	12·15	6·52	7·51	7·95	34·13	126

NOTE.—*The snowfall (water equivalent) is already included in the seasonal and annual amounts.*

Griffin Lake lies 23 miles almost due northeast of Sicamous, and is situated on the Eagle River which flows at Sicamous into the Anstey Arm, of the Thompson River system. Going upstream on the Eagle we climb from Sicamous, 1,156 feet above sea to Griffin Lake, 1,511 feet above sea, finally reaching the summit of the watershed near Clanwilliam at an elevation of 1,800 feet. The records at Griffin Lake covered a very short period between 1893 and 1900, and even that record is marred by frequent breaks. There seems no reason to discredit the averages obtained from this short record, in so far as they indicate much heavier precipitation on this slope. Moisture-bearing winds moving inland from the Pacific must be deflected sharply in a vertical direction upon meeting the western face of this range and according to the well known theory of dynamical cooling, a sudden increase in the rate of precipitation must result. Only in so far as the years covered by this record were synchronal with a greater than normal frequency of cyclonic movements tending to produce conditions favouring precipitation are we justified in reducing these figures. After such reduction is liberally made there remains an annual average amount of precipitation from all causes of *28 inches to 30 inches.*

Wettest and Driest Years on Record.

	Rainfall.		Snowfall.		Total.	
	Wettest	Driest.	Wettest.	Driest.	Wettest.	Driest.
Kamloops	11·05	5·75	55·6	13·2	16·61	7·07
Spence's Bridge	11·38	1·68	5·8	9·8	11·96	2·66
Nicola Lake	12·43	3·40	19·4	56·1	14·37	9·01
Salmon Arm	15·39	7·87	40·3	87·5	19·42	16·62
Enderby	21·19	9·96	68·3	85·3	28·02	18·49
Annis (Canoe Point)	16·40		50·3		21·43	
Griffin Lake	52·37	19·35	123·2	192·0	64·69	38·55

In the case of Griffin Lake the driest complete year in the records is given. Other years for which the figures for one or more months were lacking were probably much below the totals given above.

The driest region extends as far east as Niskonlith Reserve on the Little Shuswap, beyond which, easterly, the records from Salmon Arm, Annis, Tappen, Enderby shew that there is an increase of from 8 to 10 inches, annually, over the precipitation of the Kamloops-Nicola district. In this eastern district, moreover, there has not, at any time within our records, occurred such absolute droughts as have been noted at Spence's Bridge and Kamloops.

One of the most striking facts disclosed by the tables is that there has been (with the exception of Kamloops) everywhere a greater amount of snow in the driest year on record than in the wettest year. An examination of the thirty-six years of observations at Nicola Lake almost leads one to believe that there is some relation between the snowfall and the rainfall of this nature, the heavier snowfalls in general belonging to the years of lighter rainfall, and occurring in the winter preceding the dry summer. The records for most of the stations are too short however, to pursue the speculation further.

THE SOUTHERN KETTLE RIVER VALLEYS.

TEMPERATURE.

Seasonal Mean Temperatures

The series of observations made in this region do not admit of the drawing of more than very general conclusions from them, for the reason that the records cover short periods and are not wholly synchronous. Monthly comparisons with the records from Kelowna produced the figures here given. It is possible that the mean of the three stations is nearer the true valley temperature than the individual figures. There is no marked difference from the mean temperature of the Thompson River Valley, the more especially if we regard the summer mean at Greenwood as too low by about 2°.

Observations at Midway have been discontinued. The station at Greenwood has been reopened, and that at Grand Forks is still in operation.

	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Midway	22	44	63	44	43
Grand Forks	24	47	64	44	45
Greenwood	25	44	60	42	43
Means Kettle Valley	*24*	*45*	*62*	*43*	*44*
Means Lower Fraser	*37*	*48*	*61*	*49*	*49*
Differences	*-13*	*-3*	*1*	*6*	*5*
Means Okanagan Valley	*26*	*46*	*64*	*46*	*46*
Differences	*-2*	*-1*	*-2*	*-3*	*-2*

The few degrees lower temperature in the Kettle River Valley in all seasons as compared with the Okanagan Valley, are accounted for entirely by the greater elevation above sea of the Kettle River stations, if we use the rate of fall in temperature with ascent as determined from the Ben Nevis observations in Scotland. The average difference in elevation of the two sets of stations is in the neighbourhood of 750 feet. The rate of cooling having been taken as .36° Fahr. per 100 feet, we have a result of 2.7° cooler in the Kettle Valley.

Temperature Extremes.

The observations at Midway cover the period from August, 1895, to April, 1903, as well as the months of January and February in the year 1904, and the months of November and December in the year 1909. During this time the highest temperatures recorded in the months from May to September have been, 95°, 98°, 100.5°, 104°, 92°, respectively; the lowest temperatures in the months from November to March, -31°, -23°, -42°, -39°, -13°, respectively. The other two stations cover a period less than four years at the time of writing.

Extreme Variation of Monthly Mean Temperature

The records at Midway, only, are long enough to consider at all from this view-point. The differences between the warmest and coldest months of the same name are:—

Jan.	Feb.	March.	April	May	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
11°	14	16	7	10	6	7	10	9	10	17	24

These differences resemble those given for the North Thompson very closely except that for the month of December, which is much larger. This arises from the fact that the mean for the month of December in the year 1898 is computed from a mean minimum of 4° below zero. No other station in the province as far north as 55° latitude reported a temperature as low as this in that month. The readings of the thermometer in that month must be rejected, internal evidence being against their credibility as well. This being done the range of 24° given above becomes 16°. The January range appears too small and will likely be increased by 6° if the observations are resumed and carried over a long period.

Average Mean Daily Range and Daily Max. and Daily Min

	Winter.			Spring.			Summer			Fall.		
	Max.	Min.	Range.	Max.	Min.	Range.	Max.	Min.	Range.	Max.	Min.	Range.
	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.
Midway	31	13	18	58	30	28	82	44	38	57	30	27
Greenwood	34	15	19	59	28	31	79	41	38	58	27	31
Grand Forks	31	17	14	59	34	25	80	48	32	54	33	21

These ranges are considerably greater, especially in the summer and fall than those in the Thompson Valley, and are due mainly to the depressions of the minimum.

PRECIPITATION.

The observations at Midway produce averages very similar to those of the Okanagan Valley as regards the annual total but with the difference that the wettest season of the year is spring and not summer, as in the Okanagan. A longer series of observation might bring the two sets of figures into harmony.

For the period during which observations were made at Grand Forks, the mean differences from the corresponding observations at Kelowna were; winter, + .34, spring, + 1.60, summer, +1.15, fall, +3.43. Applying these differences to the established normal precipitation at Kelowna we deduce the following normal precipitation at Grand Forks.

—	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Grand Forks	4·15	3·93	4·68	4·35	17·11
Midway	2·67	4·02	2·98	2·92	12·59
Greenwood	1·85	3·37	6·08	3·34	14·64
Rock Creek	3·11	2·65	4·78	3·12	13·66
Means Kettle	*2·95*	*3·49*	*4·63*	*4·43*	*14·50*
Means Okanagan	*3·07*	*2·29*	*3·87*	*3·15*	*12·38*

The figures given above for Midway, Greenwood, and Rock Creek are simple means of the two to eight years data available, without any weighting by comparisons. They should not therefore be relied upon as giving an approximation to the true station normals. The mean of all four sets, in which we may hope positive and negative errors have largely neutralized themselves, is probably a good approximation to the general valley average. Regarding Grand Forks, the Year Book of British Columbia, 1911-1914, says: "Surrounding this point is a very fertile valley producing cereals and fruits." Regarding Midway it says: "The Kettle River valley in which it is situated has some good farming land suitable for irrigation."

For the upper portions of these valleys, as at Beaverdell, Carmi, and at Canyon, data of any sort is unobtainable.

THE OKANAGAN AND SIMILKAMEEN VALLEYS.

The Okanagan Valley extends in a general north and south direction between the longitudes 119° W., and 120° W., occupying the major width of that interval. Its most northerly point is about 20 miles south of Salmon Arm in the Thompson district. For 60 miles of its length the lowest levels of the depression are occupied by the waters of Okanagan Lake, a narrow and sinuous waterway whose mean height above sea-level is 1,132 feet, and whose width varies from a little more than 4 miles to a little less than a mile. Numerous small streams flow into the lake from both the east and west sides, of which the most important is Mission Creek, about 30 miles in length, which debouches near the centre of the lake from the east.

The Similkameen Valley (the main valley) begins at a point 50 miles west of the centre of Okanagan Lake, the river flowing thence in a general southeast-by-south direction to finally meet the outflow from Okanagan Lake at a point just south of the International Boundary. Into the Similkameen flow several important tributary streams, the Tulameen, the South Similkameen (a north-flowing stream), the Ashnola, and several smaller. From these smaller valleys we have no observations. The average elevation above sea of points in the Similkameen Valley is probably about 300 feet higher than that of points in the Okanagan.

TEMPERATURE.

—	Winter.	Spring.	Summer.	Fall.	Annual.	Seasonal Mean Temperature
	degrees.	degrees.	degrees.	degrees.	degrees.	
Okanagan Valley—						
Vernon (Coldstream Ranch)	25	45	64	45	45	
Kelowna	27	46	64	45	46	
Summerland	25	46	65	46	46	
Penticton	29	47	64	48	47	
Means	*26*	*46*	*64*	*46*	*46*	
Similkameen Valley—						
Princeton	20	43	61	43	42	
Hedley	25	46	64	46	45	
Keremeos	26	48	68	47	47	
Means	*24*	*46*	*64*	*44*	*45*	

The stations are arranged in each valley from north to south so that a notable increase in temperature is visible as we move southwards in the Similkameen. But in the Okanagan Valley there seems to be little change along the lake. Vernon just north of the head of the waterway is cooler than places on the shore, while Penticton at the extreme south point of the Lake appears to have a warmer winter, spring and fall.

Leaving Penticton and moving south we pass along the narrow river which drains Lake Okanagan, through the smaller Dog and Vaseux Lakes, until we reach Fairview, 25 miles south of Penticton and at the opening of a valley of a small tributary creek. Here the temperature is astonishingly high. Observations began at Fairview in May, 1909 and ceased in March, 1912. Thus the records cover a regrettably short period. From month to month comparisons with Kelowna of both maximum and minimum readings we are enabled to append the following values of the normal seasonal temperatures.

—	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Fairview	24	52	73	52	50

These temperatures are higher than those at Lakeside, at the outlet of Lake Chelan, in the continuation of this valley in United States territory but 120 miles to the southward. I was at first inclined to discredit the Fairview readings altogether, but Mr. Baynes Reed, the Provincial Meteorological Agent at Victoria Observatory vouches for the carefulness of the observer, and reports that even during the short time the instruments were in position at Fairview, the heat so warped the wooden Stevenson screen that after its second summer it was found necessary to brace the angles with iron.

Temperature Extremes

At Princeton the extreme highest temperature of each year from 1901 to 1910 were, respectively, 95°, 92°, 93°, 101, 98°, 95°, 95°, 99°, 91°, 93°; at Kelowna for the same years, 93°, 91°, 93°, 95°, 96°, 95°, 93°, 96°, 92°, 93°. At Vernon the highest temperature recorded in July was 104°, and at Hedley 100°.

At Princeton the extreme lowest temperatures of the same ten years were, -21°, -26°, -21°, -27°, -32°, -8°, -45°, -25°, -49°, -26°. At Kelowna, -10°, —, -6°, -14°, -6°, +4°, -19°, -3°, -22°, -18°. For the seven years ending in 1913 the lowest temperature at Penticton has been -10°.

These figures exhibit a greater tendency to extremes of temperature in the Similkameen, than in the Okanagan.

The differences in temperature between the warmest month and the coldest of the same name.

Extreme Variation of Monthly Mean Temperatures

—	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Years of obser.
	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.	degr.
Vernon	27	29	16	14	6	12	12	12	10	8	20	11	20
Kelowna	23	19	15	7	6	8	10	7	8	7	11	9	14
Hedley	20	12	8	9	6	9	5	6	7	11	11	10	10
Keremeos	10	14	6	6	5	8	8	7	7	7	8	8	7
Princeton	22	18	17	7	7	8	9	10	13	16	4	11	13

The lack of synchrony in observations allows no conclusions.

Average Mean Daily Range of Temperature

—	Winter.	Spring.	Summer.	Fa...
	degrees.	degrees.	degrees.	degrees.
Okanagan Valley—				
Vernon	14	23	30	20
Kelowna	13	24	28	20
Penticton	11	25	28	20
Means	*13*	*24*	*29*	*20*
Similkameen Valley				
Princeton	20	29	34	25
Hedley	15	24	28	21
Keremeos	12	22	23	17
Means	*16*	*25*	*28*	*21*

The similarity of the ranges in the Okanagan to those at Agassiz, at the interior end of the lower Fraser Valley is very great. The ranges in the Similkameen appear to increase as we move upstream.

Average Daily Max. and Min.

	Winter.		Spring.		Summer.		Fall.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.
Okanagan Valley -								
Vernon	32	18	57	34	79	49	55	35
Kelowna	33	20	58	34	78	50	55	35
Penticton	35	24	59	34	78	50	58	38
Means	*33*	*21*	*58*	*34*	*78*	*50*	*56*	*36*
Similkameen Valley –								
Princeton	30	10	57	28	77	44	55	30
Hedley	33	18	58	34	78	50	57	36
Keremeos	32	20	59	37	79	56	56	39
Means	*32*	*16*	*58*	*33*	*78*	*50*	*56*	*35*

The minimum temperatures at Princeton and Keremeos are noteworthy: the first as shewing colder conditions in the Similkameen in the winter than obtain on the average in the Thompson Valley; the second as suggesting that the high minima at Fairview, already mentioned, may have foundation in fact. Keremeos as the crow flies or might fly if the mountain were not in the way, is 11 miles west of Fairview and about as far from the International Boundary also as Fairview. The decided elevation of the minimum from May to September at both places may be correct and if so is probably due to great absorption of heat by rocky ground in the day-time which is radiated into the narrow valley during the night, the mechanism of convection and filtering of cold air to the lower levels being faulty.

Before leaving this section of the country further consideration is to be given to the temperatures at Hedley. There are two observers at this place. One station is maintained at the offices of the Hedley Gold Mining Company, at an elevation above sea-level, variously estimated at 1,660 and 1,771 feet. The second station is at the Nickle Plate Mine, operated by this company at an elevation estimated at from 4,500 to 4,700 feet above sea. A comparison of the average temperature at the two stations is appended.

	Winter.		Spring.		Summer.		Fall.	
	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.	Mean Max.	Mean Min.
	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.
Hedley	32·5	18	58	33·5	78	50	56·5	35·5
Nickle Plate	28	12	44	24	63·5	40·5	46·5	29
Difference	*4·5*	*6*	*14*	*9·5*	*14·5*	*9·5*	*10*	*6·5*

The highest temperature recorded at Hedley was 100°; at Nickle Plate, 99°. The lowest temperature recorded at Hedley was -26°; at Nickle Plate, -35°. The difference between the annual mean temperatures is 9.4°. Taking the vertical temperature gradient (annual) from the Ben Nevis Observations as a basis of calculation, viz., .36° Fahr. for each 100 feet of ascent, we derive a vertical difference of 2,614 feet. Adding this to the height of the Mining Office, 1,771 feet, we obtain the height of the Nickle Plate Mine as 1,382 feet. I hope at a future date I shall be in possession of an accurate map, shewing the relative positions of the two stations on the watershed, from which in conjunction with the temperature observations an idea may be obtained of the temperature gradients in the valleys of this province.

PRECIPITATION

Average Seasonal Precipitation

	Winter.	Spring	Summer	Fall.	Annual	Annual.
The Okanagan Valley						
Vernon	3·55	2·17	1·11	5·06	13·87	33·4
Kelowna	3·81	2·33	3·33	1·01	13·08	30·9
Summerland	2·51	2·21	1·01	2·49	11·22	29·7
Penticton	2·41	2·14	3·77	2·12	10·74	16·7
Means	*3·07*	*2·29*	*3·17*	*2·17*	*12·*	
The Similkameen Valley						
Princeton	3·63	2·17	3·21	3·75	13·09	14·8
Hedley	2·91	2·45	3·58	2·35	11·32	22·4
Keremeos	1·03	2·01	2·19	2·58	8·11	10·6
Means	*2·53*	*2·21*	*3·10*	*2·89*	*10·8..*	
The Okanagan River						
Fairview	2·95	1·68	0·81	3·79	9·23	30·7
(Short Record.)						

It seems a fair conclusion from these figures that the precipitation decreases from north to south in both valleys. Since the snowfall diminishes in a similar ratio in the same direction, the total at Fairview has an anomalous appearance. The record here is very short but there seems good reason to believe that there are usually very heavy snowfalls at Fairview in December.

Wettest and Driest Years.

	Wettest year.			Driest year.		
	Rain.	Snow.	Total.	Rain.	Snow.	Total.
Vernon	13·36	46·0	17·96	4·30	42·0	8·50
Kelowna	12·14	38·5	15·99	5·76	20·3	7·79
Summerland	11·46	33·6	14·82	5·68	26·5	8·33
Penticton	11·75	15·9	13·34	7·63	11·5	8·78
Princeton	11·92	47·5	16·67	5·54	36·0	9·14
Hedley	13·90	12·9	15·19	6·67	14·7	8·14
Keremeos	8·58	18·8	10·46	3·75	1·9	3·94
Means	*11·87*	*30·5*	*14·92*	*5·62*	*21·8*	*7·80*

Average Range between wettest and driest years : 7·12 or approximately 35 p. c. of the normal annual fall.

The observations made at the Nickle Plate Mine are not included in the table given above. The major portion of the precipitation at this higher level is snow. In fact as much as 218 inches of snow has been measured in the month of April and 102 inches in May. Even in the summer months, however, the rainfall alone is greater at the Nickle Plate Mine than at Hedley. The averages are appended.

	Winter.	Spring.	Summer.	Fall.	Annual.	Wettest year.	Driest year.
Rain	0·04	1·60	4·83	1·35	7·82	10·99	5·83
Snow	60·9	73·6	10·3	37·6	182·4	102·3	104·0
Totals	6·13	8·96	5·86	5·11	26·06	21·22	16·23

In the table above that year is chosen as the wettest year in which the rainfall was greatest. But if that year be chosen in which the total of rain and snow, combined, is greatest, we have rain : 9·63, snow : 353·8, total : 45·01.

THE KOOTENAY AND ARROW LAKES COUNTRY.

TEMPERATURE.

Seasonal Mean Temperature

	Winter.	Spring.	Summer.	Fall.
	degrees.	degrees.	degrees.	degrees.
Upper Arrow—				
Nakusp	27	42	60	43
East Arrow Park	25	41	61	43
Lower Arrow				
Fauquier	29	44	60	44
Westley	30	44	62	45
Kootenay Lake—				
Howser	26	43	63	43
Kaslo	26	42	59	43
Boswell	27	44	62	45
Creston	26	43	63	43
Pilot Bay	29	44	63	46
Slocan Lake—				
Perry Siding	26	44	63	43
Windermere Lake—				
Invermere	18	42	59	39
Wilmer	18	40	60	39
Elk and Kootenay Rivers				
Gateway	19	41	58	41
Cranbrook	19	41	59	41
Ft. Steele	21	42	62	41
Ferme	19	39	57	39
Tobacco Plains—				
Fruitlands Farm	25	41	63	43
Rossland-Nelson District—				
Rossland	25	42	60	42
Nelson	28	46	63	46
Fruitvale	23	46	59	42
Pend d'Oreille	24	43	62	42

The cooler seasons are undoubtedly to be found in what is generally known as the East Kootenay, that is the country east of the Selkirks. But the records from Fruitlands, on the Tobacco Plains, shew that the seasons there are much the same as on Kootenay Lake. The area thus affected must be small for Gateway shews the characteristic East Kootenay depression of the minimum in the winter.

It should be noted that only a few of the stations listed above have long records; many of them in fact have been in operation but a short time. Those with longer records will be found listed in the complete tables at the end of the book.

In the whole Kootenay country the seasons are all a little cooler than in the Okanagan Valley.

Extremes of Temperature.

	Highest recorded.	Lowest recorded.
Rossland	91	17°
Nelson	100	- 17
Cranbrook	96	- 35
Ft. Steele	100	36°
Fruitlands	103	37

The remaining figures are from short records.

	Highest recorded.	Lowest recorded.
Nakusp	95	- 5°
Fauquier	93	- 11
Howser	99°	- 13°
Kaslo	90°	- 7°
Creston	95°	- 12°
Pilot Bay	99	- 10°
Wilmer	115°	- 33°
Athalmer	99	- 36°
Fruitvale	96°	- 20°

Both the long and the short records equally well disclose the greater lowering of the minimum temperature in the winter months in the East Kootenay.

The maximum of 115° at Wilmer in June, 1911 is open to doubt.

The difference in degrees between the warmest month and the coldest of the same name at such stations as have records of any length is tabulated below.

Extreme Variation of Monthly Mean Temperature.

	Jan.	Feb.	March	April.	May.	June	July	August	Sept.	Oct.	Nov.	Dec.
	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.
Rossland..	15	11	10	10	7	8	9	7	5	10	10	12
Nelson..	12	10	9	7	7	6	9	6	6	7	11	12
Cranbrook	9	17	16	8	6	12	6	11	8	11	12	11
Fort Steele.	9	18	11	8							19	11
Fruitlands .	23	22	17	10	16	11	13	16	10	10	20	16

Scant as this data is, we may conclude that the East Kootenay is subject to greater variations of temperature from May to September than is the West Kootenay.

Average Daily Range, Maximum and Minimum.

	Winter.			Summer.		
	Mean Maximum	Mean Minimum	Range.	Mean Maximum	Mean Minimum	Range.
	deg.	deg.	deg.	deg.	deg.	deg.
Pilot Bay	34	24	10	75	52	23
Rossland..	28	21	7	71	49	22
Nelson	33	23	10	77	50	27
Cranbrook	28	9	19	77	42	35
Fort Steele	31	11	20	81	43	38
Fruitlands	32	19	13	78	48	30

The tendency to lower minima in the East Kootenay, already referred to, is again made manifest in this table. The summer maximum of 81° at Fort Steele is probably 3° or 4° too high, and is derived from too short a period.

PRECIPITATION.

Seasonal and Annual Precipitation.

	Winter.	Spring.	Summer.	Fall.	Annual.	Snow.
Creston	7·03	4·92	4·94	6·22	23·11	65
Pilot Bay and Crawford Bay	11·00	7·98	8·35	7·48	34·81	73
Rossland	9·33	7·14	5·07	8·38	29·62	128
Nelson	8·20	5·10	6·73	7·60	27·63	79
Kaslo	8·10	3·77	5·41	8·84	26·12	73
Cranbrook	5·73	3·72	3·43	3·78	16·66	62
Fort Steele	3·38	3·75	4·18	4·75	16·06	42
Fruitlands	4·13	4·33	5·68	4·30	18·14	43
Wilmer	2·17	2·64	5·25	3·60	13·66	30

NOTE.—*The snowfall is already included in the seasonal and annual totals.*

These figures prove the East Kootenay to be considerably dryer than the West Kootenay, and that the Windermere Lake district is especially dry in the winter and spring. The figures given as for Creston were made at the Reclamation Works. Those for Pilot Bay and for Crawford Bay have been combined.

ILLECILLEWAET--NORTH COLUMBIA DISTRICT.

TEMPERATURE.

Seasonal Mean Temperature.

—	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Glacier	17	35	54	36	36
Golden	15	41	59	40	39
Donald	14	39	59	38	38
Revelstoke	23	42	61	43	43

Donald and Golden are on the north-flowing Columbia, and Glacier lies near the headwaters of the Beaver which is tributary to the same stream, while Revelstoke lies to the west at the confluence of the Illecillewaet with the south-flowing Columbia. Revelstoke is thus only 20 miles north of Arrowhead on the Upper Arrow and its winter temperatures very closely resemble those of stations on that Lake.

Extremes of Temperature.

Station.	Highest Recorded.	Lowest Recorded.
	degrees.	degrees.
Glacier	89	-32
Golden	94	-51
Donald	97	-45
Revelstoke	100	-25

The difference in degrees between the warmest month and the coldest of the same name.

Extreme Variation of Monthly Mean Temperatures.

—	Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Glacier	17	18	16	11	13	10	4	9	5	11	14	19
Golden	26	19	17	10	5	18	8	4	9	8	20	16
Donald	5	9	13	5	14	5	4	15	10	4	23	8
Revelstoke	26	14	13	10	11	14	12	12	9	7	13	16

The record at Donald covers a shorter period than those of the other stations; therefore the small ranges of the winter months are not unlikely to be increased should observations be recommenced at that point.

Average Mean Daily Range and Max. and Min.

—	Winter.			Summer.		
	Max.	Min.	Range.	Max.	Min.	Range.
	degrees.	degrees.	degrees.	degrees.	degrees.	degrees.
Glacier	23	12	11	67	42	25
Golden	25	6	19	73	44	29
Donald	23	5	18	76	42	34
Revelstoke	29	17	12	75	47	28

PRECIPITATION

—	Winter.	Spring.	Summer.	Fall.	Annual.	Snow.
	inches.	inches.	inches.	inches.	inches.	inches.
Glacier	22·00	9·68	7·93	17·16	56·77	404
Golden	5·22	2·65	4·79	5·79	18·45	77
Donald	9·88	3·68	3·83	7·30	24·69	126
Revelstoke	14·31	7·01	8·13	12·90	42·35	144

NOTE.—*The snowfall is already included in the seasonal and annual totals.*

Precipitation at Revelstoke is much heavier than at any point on the Kootenay country below it. Rossland only approaches it in point of snowfall with 128 inches annually, while the 28 inches of rainfall at Revelstoke is nearly equalled by 27 inches at Pilot Bay. Neither of these places, however, show a total precipitation as great as Pilot Bay 35 and Rossland 32 inches.

UPPER FRASER RIVER—BABINE LAKE.

TEMPERATURE.

General Mean Temperature.

	Winter	Spring	Summer	Fall	Latitude.
	degrees	degrees	degrees	degrees	° ′
Lillooet	24	47	66	47	50 42
Pavilion	24	46	65	44	50 50
Clinton	20	39	58	42	51 7
Chilcotin	17	38	57	37	51 10
Soda Creek	15	43	66	41	52 22
Quesnelle Forks	22	39	58	40	52 15
Hydraulic	22	40	59	43	52 12
Quesnelle	20	40	60	42	52 59
Barkerville	19	35	53	35	53 2
Fort George	17	37	57	40	53 55
Fort St. James	12	33	53	35	54 28
Babine Lake	13	33	52	35	55 38

These stations are arranged in order from north to south, and the general effect of latitude is clearly discernible. The temperatures for Soda Creek do not fit their latitude very well. These figures are based on observations made at that point in the years 1881-1886, and although an attempt has been made to reduce them, by comparisons, to the same period as the surrounding stations the summer temperature which results appears to be about 8° too high. The figures, given for Chilcotin are from observations made at a point on Big Creek and there seems no reason to doubt that the winter and fall at this point are colder than at Quesnelle. Barkerville which is situated on a plateau to the east of the Fraser at the headwaters of tributary streams is also colder than Quesnelle although practically in the same latitude. Clinton is listed with Upper Fraser stations because its seems most convenient to place it here on account of its temperature.

In some cases the temperatures tabulated above have been deduced from short records by comparison with synchronal temperatures at Barkerville, Quesnelle, and Fort St. James.

Extremes of Temperature.

Station.	Highest recorded.	Lowest recorded.
	degrees.	degrees.
Chilcotin	102	50
Clinton	96	51
Quesnelle Forks	98	28
Quesnelle	100	−50
Barkerville	93	−46
Fort St. James	97	55
Babine Lake	83	48

The record at Babine Lake being very short and the temperatures during the period of observation parallelling those at Ft. St. James, we may expect that a temperature of 83° will yet be surpassed.

The difference in degrees between the warmest month and the coldest of the same name is tabulated below.

Extreme Variation of Monthly Mean Temperature.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Clinton	10	13	9	11	10	4	7	3	8	3	6	4
Chilcotin	29	18	17	13	16	6	9	16	8	10	38	14
Quesnelle Forks	11	22	18	21	7	6	9	11	10	14	26	18
Quesnelle	37	20	26	10	9	10	10	9	12	13	37	24
Barkerville	22	22	16	11	12	8	9	14	13	12	30	15
Fort St. James	34	19	19	14	15	11	11	11	9	13	37	17
Extremes	*37*	*22*	*26*	*21*	*16*	*11*	*11*	*16*	*13*	*14*	*38*	*24*

Mean Daily Range and Mean Max. and Min.

	Winter.			Spring.			Summer.			Fall.		
	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.
	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.
Chilcotin	27	7	20	52	24	28	72	41	31	49	25	24
Quesnelle Forks	30	14	16	51	27	24	72	44	28	50	31	19
Quesnelle	29	11	18	56	25	31	75	45	30	54	30	24
Barkerville	26	12	14	45	25	20	65	40	25	45	28	17
Fort St. James	23	1	22	46	20	26	69	37	32	47	23	24

PRECIPITATION.

Average Seasonal Precipitation

	Winter.	Spring.	Summer.	Fall.	Annual.	Snow.
Chilcotin	2·25	1·97	5·06	3·01	12·29	42
Quesnelle Forks	6·31	4·47	6·62	6·68	24 08	86
Quesnelle	3·23	1·68	5·04	4·27	14 21	39
Barkerville	8·87	7·21	9·61	9·83	35 52	159
Fort St. James	4·32	2·60	4·11	4·29	15 32	58

NOTE.—*Snowfall already included in seasonal and annual amounts.*

PACIFIC COAST AND INLETS OF MAINLAND—QUEEN CHARLOTTE ISLANDS

TEMPERATURE.

Seasonal Mean Temperature.

	Winter.	Spring.	Summer.	Fall.	Annual.
	degrees.	degrees.	degrees.	degrees.	degrees.
Rivers Inlet	36	44	59	47	46·5
Bella Coola	28	44	60	45	44
Swanson Bay	32	41	55	46	44
Kitimaat	30	45	60	45	45
Port Simpson	35	43	55	46	45
Massett, Q.C.I	38	44	57	47	46

Bella Coola and Kitimaat, which are at the heads of inlets running a considerable distance inland have colder winters and warmer summers than those on the coast-line. Rivers Inlet, the most southerly of the group appears to benefit in all seasons from its position. But between Rivers Inlet and Port Simpson there are three degrees of latitude, while there is scarcely any difference in the annual temperatures of the stations lying within this interval.

Extremes of Temperature

	Highest Recorded.	Lowest Recorded.
	degrees.	degrees.
Rivers Inlet	91	11
Bella Coola	99	−18
Swanson Bay	87	− 9
Kitimaat	106	− 9
Massett, Q.C.I	84	4
Port Simpson	88	−10

The extremely high temperature at Kitimaat is astonishing, and may be doubted, yet temperatures exceeding 95° are very frequently recorded at Bella Coola. Temperatures below zero are of much more frequent occurrence at inlet stations than at Port Simpson, where they were recorded in two years only during twenty-one years of observation.

At Bella Coola zero or lower has been recorded in seventeen years. A like temperature of 5° or lower have been registered in five of the remaining ten years.

The difference between the warmest month and the coldest of the same name is calculated below.

Average Variation of Monthly Temperature.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.
Rivers Inlet	9	11	9	6	4	3	7	4	6	4	13	8
Bella Coola	4	16	11	9	6	10	7	12	9	8	12	14
Port Simpson	4	18	11	7	5	6	6	6	7	6	9	11
Massett	13	9	13	10	15	10	15	10	6	6	4	13

Seasonal Daily Range Mean Max. and Mean Min.

	Winter.			Spring.			Summer.			Fall.		
	Mean Max.	Mean Min.	Range.	Mean Max.	Mean Min.	Range.	Mean Max.	Mean Min.	Range.	Mean Max.	Mean Min.	Range.
	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	deg.
Rivers Inlet	40	32	8	52	37	15	64	49	15	52	42	10
Bella Coola	33	23	10	55	34	21	72	48	24	53	38	15
Port Simpson	42	29	13	50	35	15	63	48	15	53	40	13
Massett	44	31	13	51	36	15	65	49	16	54	40	14

PRECIPITATION.

Seasonal and Annual Precipitation.

	Winter.	Spring.	Summer.	Fall.	Annual.	Snow.
Rivers Inlet	39·28	20·85	12·56	39·86	112·55	62
Bella Coola	12·13	6·91	5·32	17·21	41·99	55
Swanson Bay	56·93	40·04	20·60	63·82	181·39	120
Hartley Bay	50·30	21·90	11·80	44·60	128·60	
Kitimaat	23·01	11·50	8·94	35·57	79·02	101
Port Essington	40·77	20·68	18·36	50·36	130·17	99
Prince Rupert	33·18	25·36	15·94	33·73	108·21	42
Port Simpson	27·83	15·88	15·61	32·87	92·19	49
Nass Harbour	22·30	13·02	12·17	32·71	80·20	113
Stewart	20·17	11·75	10·69	23·87	66·39	188

NOTE.—*Snowfall already included in seasonal and annual totals.*

THE ATLIN LAKE DISTRICT.

Atlin, on Atlin Lake, lies 30 miles south of the Yukon Boundary. Observations have been made at this point for nearly ten years. Although summer and fall have much the same temperature here as at Fort St. James, yet the winters are about 6° colder, and the springs 3° colder. During the ten years of observation the highest temperature recorded has been 81° and the lowest 50° below zero. Spring opens about the 20th of May, and winter sets in about the 15th of October, while frost has been recorded in every month of the year except July.

Precipitation is least in April, May and June, and greatest from July to December, the annual rainfall averaging less than 6 inches and the snowfall 56 inches, a total annually of $11\frac{1}{4}$ inches. In the driest year the total precipitation was 8 inches and in the wettest year 13 inches.

A detailed summary of the observations will be found in the tables.

PART II.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES OF TEMPERATURE AND PRECIPITATION.

Section I — Vancouver Island.
Section II — Lower Fraser.
Section III — Thompson River.
Section IV — Okanagan, Similkameen, Kettle River Valleys.
Section V — Kootenay and Arrow Lakes, Kootenay River.
Section VI — Illecillewaet-Upper Columbia.
Section VII — Upper Fraser Valley to Babine Lake.
Section VIII — Atlin Lake District.
Section IX — Pacific Coast-Queen Charlotte Islands.

Section I.—VANCOUVER ISLAND.

Alberni, Beaver Creek { Lat. N. 49 15'. Long. W. 124° 49'. Height above sea level, 300 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1894 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911	1900			
December	37·2	41·4	33·0	42·5	31·9	58	12	9·73	19·70	4·16	19·70	8·9	45·0	10·62
January	33·7	39·1	28·3	39·8	26·6	62	− 3	7·43	12·54	2·99	10·73	22·1	67·4	9·64
February	37·7	45·2	30·2	42·5	34·0	72	9	7·42	17·16	2·09	3·56	10·4	44·3	8·46
Winter	36·2	41·9	30·5			72	− 3	24·58		9·24	33·99	41·4		28·72
March	42·1	52·3	31·9	47·0	35·5	77	12	5·12	12·01	1·74	9·72	3·3	10·7	5·45
April	47·9	60·0	35·8	53·0	43·7	85	22	4·21	10·41	2·06	2·82	1·0	9·3	4·31
May	54·7	67·3	42·1	60·9	50·8	95	26	3·06	6·06	4·51	4·96			3·66
Spring	48·2	59·9	39·9			95	12	12·39		8·31	17·50	1·3		12·82
June	58·9	72·0	45·7	62·9	53·7	99	31	2·30	4·95	0·97	4·95			2·30
July	65·2	80·0	50·3	71·8	60·2	103	35	0·97	2·28	0·18	1·54			0·97
August	65·0	80·7	49·3	75·0	60·8	106	29	1·14	3·28	0·47	1·52			1·14
Summer	63·0	77·6	48·4			106	29	4·41		1·62	8·01			4·41
September	57·8	71·3	44·2	65·4	53·3	101	24	3·09	7·79	2·95	1·68			3·09
October	50·8	61·1	40·4	54·8	46·7	82	21	5·74	13·93	3·41	11·20			5·74
November	40·8	47·3	34·3	46·0	37·3	67	9	11·74	22·45	4·84	8·06	6·5	10·9	12·39
Fall	49·8	59·9	39·6			101	9	20·57		11·20	20·94	6·5		21·22
Year	49·3	59·8	39·6			106	− 3	61·95		30·37	80·41	52·2		67·17
Snowfall in wet or dry year										136·2	21·8			
Total precipitation										43·99	82·62			

Section I.—VANCOUVER ISLAND

Rainfall { Lat. N. 48° 30'
Long. W. 123° 9'
Height above sea level, 20 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From February 1903 to December 1906.

Month.	Temperature							Precipitation in inches						
								Rain				Snow		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1905	1904			
December				40·1	36·7	49·1	27·8	15·18	31·26	7·59	31·26	1·3	4·0	15·31
January				39·9	38·7	54·7	25·0	9·74	11·08	4·48	14·08	2·2	3·5	9·96
February				42·1	37·5	57·9	23·0	11·01	22·45	11·36	22·49	4·0	12·0	11·41
Winter								35·93		23·34	67·83	7·5		36·68
March				44·5	39·7	67·1	21·0	7·32	10·97	10·55	10·97	2·7	5·0	7·59
April				53·3	43·7	71·3	28·7	5·71	10·20	1·55	10·20			5·71
May				55·8	48·7	75·2	34·5	3·53	7·97	2·47	2·65			3·53
Spring								16·56		14·57	23·82	2·7		16·83
June				58·5	54·0	80·1	39·0	2·60	5·61	0·15	1·87			2·60
July				61·9	58·4	85·1	45·0	0·90	2·12	R	1·12			0·90
August				61·3	58·7	78·6	45·0	1·10	1·99	1·54	0·04			1·10
Summer								4·60		1·69	3·33			4·60
September				56·4	53·0	74·9	39·9	7·18	9·58	9·23	2·74			7·18
October				49·0	42·8	68·7	29·6	8·74	13·13	4·94	6·00			8·74
November				43·7	40·9	59·0	29·0	16·82	28·75	2·76	28·75	0·4	1·0	16·86
Fall								32·74		16·93	37·49	0·4		32·78
Year								89·83		56·53	132·47	10·6		90·89
Snowfall in wet and dry year										1·1	24·5			
Total precipitation										56·64	134·92			

VANCOUVER ISLAND.

Cape Scott { Lat. N. 50° 48'.
Long. W. 128° 27'
Height above sea, 20 ft.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1897 to 1969.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rain Fall in Driest Year	Rain fall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898.	1902.			
December	39·9	44·9	34·9	43·5	36·9	70·0	21·5	18·14	26·02	9·51	26·02	0·0	0·0	18·14
January	37·3	41·9	32·8	43·3	29·8	62·0	9·0	12·90	16·90	16·60	12·84	S.	S.	12·90
February	38·4	43·3	33·6	41·2	35·1	55·5	15·0	11·83	21·37	15·65	21·37	0·0	0·0	11·83
Winter	38·5	43·4	33·8			70·0	9·0	42·87		41·76	60·23	S.	S.	42·87
March	37·6	44·7	30·4	45·8	36·2	70·0	12·5	9·31	14·95	4·18	14·95	0·9	9·1	9·40
April	43·8	50·1	37·6	49·1	42·2	65·5	28·0	8·76	13·03	11·43	7·56			8·76
May	47·7	53·7	41·7	49·6	45·0	73·0	29·5	5·60	8·60	6·46	4·67			5·60
Spring	43·0	49·5	36·6			73·0	12·5	23·67		22·07	27·18	0·9		23·76
June	52·1	57·8	46·4	53·3	50·6	81·5	36·0	3·23	6·06	4·39	3·23			3·23
July	55·2	60·4	50·0	57·7	53·6	84·5	34·0	2·11	4·91	2·79	3·33			2·11
August	55·2	60·8	49·5	56·5	53·0	77·5	38·0	3·67	7·60	0·35	6·13			3·67
Summer	54·2	59·7	48·6			84·5	34·0	9·01		7·53	12·69			9·01
September	51·9	58·0	45·8	54·6	49·8	68·5	33·0	8·67	14·10	6·63	7·97			8·67
October	48·4	53·8	43·0	50·8	45·9	72·5	30·0	10·86	16·73	9·39	10·15			10·86
November	43·5	48·3	38·8	50·6	38·0	70·0	27·0	20·85	28·59	14·87	17·54			20·85
Fall	47·9	53·4	42·5			72·5	27·0	40·38		30·89	35·66			43·08
Year	45·9	51·5	40·4			84·5	9·0	115·93		102·25	135·76	0·9		116·02
Snowfall in wet or dry year										S.	0·0			

VANCOUVER ISLAND.

Carmanah { Lat. N. 48° 38'
Long. W. 124° 47'.
Height above sea level 1,130 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1892 to 1901

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898.	1896.			
December	41·3	45·5	37·2	44·0	37·9	58	20	17 55	27 14	11 85	23 73	2 0	9 0	17·75
January	39·2	43·7	34 7	41·8	37 5	53	4	12 70	25·20	11·24	25 20	5 8	17 5	13·28
February	39·4	44 1	34 8	42 6	36·4	56	6	13 35	27 88	17 93	27·88	6 3	41·0	13·98
Winter	40·0	44 4	35·6	. .	. . .	58	4	43·60	..	41 02	76 81	14·1	.....	45 01
March	41·0	47·0	34 9	45·7	37·0	61	18	9·09	15·85	2 16	6 92	1 8	7 0	9·27
April	44·7	51 0	38 3	47·9	43 1	77	29	10 67	15·05	4 89	14 06	0 3	2 0	10·70
May	49 7	55·8	43·5	51·1	47 9	74	32	6 39	11·34	2 17	7 41	...	..	6 39
Spring	45·1	51·3	38 9	...	....	77	18	26·15	....	9 22	28 39	2·1	.....	26·36
June	52·8	59 5	46 0	56·1	51·4	84	38	4 00	11 38	5·11	6·25	... .	..	4 00
July	56·2	63·1	49·3	59 0	53 9	85	41	1 97	5·64	1 27	...	. .	. . .	1·97
August	57·0	63 8	50 3	59 9	54·8	80	42	1·05	3 53	0 08	1·10	...	...	1 05
Summer	55·3	62·1	48 5	.....	....	85	38	7 02	...	6·46	7 35	.... .	.	7·02
September	53 1	59·1	47 1	55·2	52·0	76	36	5 61	16 36	5 60	0 64	....	....	5·61
October	49 6	53 7	45·5	55·3	47 3	70	31	8 76	16 95	6 98	7 93	.. .	.	8·76
November	43·4	47·7	39 1	50·1	37·1	58	17	16 74	28 95	13 91	15·45	2 6	15·5	17·00
Fall	48·7	53 5	43·9	.. .	.....	76	17	31·11	...	26·49	24·02	2 6	.. .	31 37
Year	47 3	52·8	41 7	.....	..	85	4	107 88	.	83 19	136·57	18 8	.....	109·76
Snowfall in wet or dry year										10 0	28·8			
Total precipitation in wet or dry year										84 19	139·45			

VANCOUVER ISLAND.

Clayoquot { Lat. N. 49° 11'. Long. W. 125° 47'. Height above sea level, 40 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1898 to 1913.

Month.	Temperature.							Precipitation by Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1907	1901			
December	42·2	47·5	36·8	45·3	38·5	66	23	16·37	23·88	13·62	16·67	0·2	1·5	16·39
January	39·5	45·1	33·9	42·1	34·6	63	13	13·74	26·34	9·76	10·60	9·4	43·2	14·68
February	40·6	46·9	34·4	45·8	37·7	62	18	12·86	25·47	13·11	17·60	1·2	6·7	12·98
Winter	40·8	46·5	35·0	.....	.....	66	13	42·97	.....	36·49	44·87	10·8	.....	44·05
March	42·4	49·6	35·1	45·8	38·6	64	21	9·77	18·30	8·10	13·31	2·0	17·7	9·97
April	45·6	53·6	37·5	47·2	42·8	76	27	8·37	23·46	11·73	12·38	.....	.....	8·37
May	50·0	57·9	42·4	54·2	47·1	83	30	6·73	17·65	5·80	17·65	.....	.....	6·73
Spring	46·0	53·7	38·3	.....	.....	83	21	24·87	.....	25·63	43·34	2·0	.....	25·07
June	54·3	62·3	46·3	56·6	50·8	81	36	4·24	9·56	0·87	4·63	.....	.....	4·24
July	58·4	67·1	49·6	63·0	55·2	91	40	2·01	4·77	0·95	4·77	.....	.....	2·01
August	58·5	66·9	50·0	62·5	55·6	87	38	3·54	15·73	5·09	1·52	.....	.....	3·54
Summer	57·1	65·4	48·6	.....	.....	91	36	9·79	.....	6·91	10·92	.....	.....	9·79
September	55·7	64·4	46·9	59·2	53·5	83	33	7·06	15·94	4·64	4·57	.....	.....	7·06
October	50·8	57·8	43·7	53·4	47·7	78	30	12·79	25·95	4·64	10·96	.....	.....	12·79
November	45·0	51·0	39·1	49·2	41·9	69	22	19·46	33·75	5·98	32·87	1·2	9·5	19·58
Fall	50·5	57·7	43·2	.....	.....	83	22	39·31	.....	15·26	48·40	1·2	.....	39·43
Year	48·6	55·8	41·3	.....	.....	91	13	~~16·94~~ 116.94	.....	84·29	117·53	14·0	.....	118·34
Snowfall in wet or dry year										15·2	11·4			
Total precipitation										88·81	148·67			

VANCOUVER ISLAND

Cowichan (since Feb., 1907 Duncan) { Lat. N. 48° 47'
Long. W. 123° 42'
Height above sea-level 170 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From February, 1904 to December, 1913.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total
										1911	1908			
December	38·8	42·4	35·2	41·0	34·2	59	18	6·67	11·21	4·13	6·49	2·9	17·6	6·96
January	34·8	39·9	29·7	38·8	29·9	56	1	5·41	9·16	5·14	9·16	12·3	21·5	6·64
February	38·8	45·1	31·5	40·9	34·9	59	9	4·12	6·28	0·92	6·28	6·2	40·1	4·74
Winter	37·5	42·5	32·1	...	..	59	1	16·20	..	10·19	21·93	21·4	...	18·34
March	42·0	50·7	33·3	45·8	38·6	69	15	2·74	7·56	0·73	3·68	1·3	9·1	2·87
April	47·6	58·2	37·0	49·9	45·0	78	26	1·20	2·09	1·14	1·74	..	.....	1·20
May	53·3	63·7	42·8	56·1	51·0	84	28	1·85	2·79	2·59	2·47	.	.....	1·85
Spring	47·6	57·5	37·7	...	....	84	15	5·79		4·46	7·89	1·3	.	5·92
June	57·7	68·3	47·1	59·6	54·5	85	36	1·27	2·15	0·86	0·21	...	....	1·27
July	63·3	75·1	51·4	64·4	60·2	92	41	0·64	1·26	0·11	0·13	....	...	0·64
August	61·6	70·5	52·6	63·9	60·2	96	35	1·01	2·54	0·62	0·93	...	..	1·01
Summer	60·9	71·3	50·4	...	....	96	35	2·92	.	1·59	1·27	.....	.....	2·92
September	56·4	64·7	48·0	58·1	46·0	87	29	1·62	4·94	2·62	0·30	...	...	1·62
October	48·8	55·5	42·1	51·3	44·5	71	23	2·92	4·53	1·28	3·76	....	....	2·92
November	43·6	48·1	39·1	46·8	40·0	63	7	8·13	11·91	4·60	10·01	3·4	20·0	8·47
Fall	49·6	56·1	43·1	....	...	87	7	12·67	....	8·50	14·07	3.4	.....	13·01
Year	48·9	56·8	40·8	....	..	96	1	37·58	...	24·74	45·16	26·1	...	40·19
Snowfall in wet or dry year										37·3	S.			
Total precipitation in wet or dry year										28·47	45·16			

VANCOUVER ISLAND.

French Creek. { Lat. N. 49° 20'.
Long. W. 124° 36'.
Height above sea level, 125 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1892 to 1902.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One month.	Total.
										1898.	1900.			
December	38·1	42·8	33·4	41·5	35·2	57	15	5·75	9·09	3·01	8·04	2·8	21·0	6·03
January	36·2	41·2	31·1	38·9	33·5	54	7	3·91	8·63	1·66	5·90	12·7	37·0	5·18
February	38·0	44·5	31·6	41·8	35·4	57	10	3·06	6·02	4·96	2·67	6·5	36·5	3·71
Winter	37·4	42·8	32·0	.....	.....	57	7	12·72	.....	9·63	16·61	22·0	...	14·92
March	40·0	48·8	31·3	44·2	36·7	65	15	1·86	5·86	1·03	5·03	1·9	14·5	2·05
April	45·3	55·1	35·5	52.2	43·8	78	25	2·25	3·36	1·47	1·43	0·1	1·0	2·26
May	51·5	61·3	41·7	54·0	49·3	82	28	1·63	3·37	1·96	3·37	.. .	....	1·63
Spring	45·6	55·1	36·2	.....	.....	82	15	5·74	.....	4·46	9·83	2·0	... .	5·94
June	56·3	66·1	46·5	60·8	54·9	85	30	0·88	2·88	1·42	2·88	.....	.. ..	0·88
July	61·0	72·3	49·7	63·6	57·5	94	41	0·83	1·82	0·48	0·94	....	.....	0·83
August	61·5	73·6	49·4	67·8	59·2	90	37	2·05	2·85	0·07	1·56	. ....	.....	2·05
Summer	59·6	70·7	48·5	..	.....	94	30	3·76	.. .	1·97	5·38	. .. .	... .	3·76
September	54·4	64·7	44·1	60·6	51·0	83	31	2·85	5·26	2·28	1·14	.....	.....	2·85
October	47·6	55·7	39·4	51·1	45·5	72	27	5·45	4·94	2·30	1·94	S.	S.	5·45
November	40·2	45·8	34·7	47·2	32·6	63	15	5·74	11·19	4·69	3·22	5·0	14·0	6·24
Fall	47·4	55·4	39·4	. .	....	83	15	14·04	... .	9·27	9·30	5·0	..	14·54
Year	47·5	56·0	39·0	. ..	.....	94	7	36·26	.....	25·33	41·12	29·0	.....	39·16
Snowfall in wet or dry year										35·5	15·0			
Total precipitation in wet or dry year										28·68	42·62			

VANCOUVER ISLAND

Goldstream Lake { Lat. N. 48° 27'
Long. W. 123° 33'
Height above sea level, 1,500 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1896 to 1912.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year. 1911	Rainfall in Wettest Year. 1896.	Average Monthly Fall.	Greatest Amount in One Month.	Total
December								10·41	20·23	6·92	16·69	12·8	53·0	11·69
January								7·90	15·32	1·78	15·32	25·1	56·0	10·44
February								7·01	13·73	1·56	13·73	14·2	86·0	8·43
Winter								25·32		13·26	45·74	52·1		30·56
March								5·04	12·01	3·81	3·94	10·7	56·5	6·11
April								3·08	5·46	1·86	2·50	2·1	22·0	3·29
May								2·37	5·09	2·40	3·76			2·37
Spring								10·49		8·07	10·20	12·8		11·77
June								1·64	4·44	1·03	1·28			1·64
July								0·73	2·09	0·16	0·00			0·73
August								1·16	2·89	0·76	0·92			1·16
Summer								3·53		1·95	2·20			3·53
September								2·75	7·53	2·66	1·61			2·75
October								5·18	12·17	1·43	4·25			5·18
November								13·02	24·23	11·24	18·46	5·1	31·0	13·53
Fall								20·95		15·33	24·32	5·1		21·46
Year								60·29		38·61	82·46	70·3		67·32
Snowfall in wet or dry year										79·8	54·0			
Total precipitation										46·59	87·86			

VANCOUVER ISLAND.

Kuper Island. { Lat. N. 48° 58′.
Long. W. 123° 38′.
Height above sea-level—20 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1894 to 1904.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898	1904			
December	39·6	44·6	34·6	44·2	35·8	58	22	7·42	12·41	2·94	9·59	4·1	16·3	7·83
January	37·8	43·0	32·5	41·2	34·4	56	7	5·26	8·55	2·38	7·66	13·5	34·2	6·61
February	39·6	45·9	33·3	42·0	37·1	57	11	4·59	10·24	6·84	5·30	4·1	16·0	5·00
Winter	39·0	44·5	33·5	.....	.....	58	7	17·27	...	12·16	22·55	21·7	.....	19·44
March	40·9	49·0	32·8	46·1	38·2	66	19	3·20	8·62	0·93	5·15	5·9	18·6	3·79
April	47·2	56·8	37·6	50·2	44·7	86	27	1·79	2·16	1·40	1·73	....	...	1·79
May	52·4	63·7	41·1	57·7	50·9	83	31	1·70	2·67	1·39	1·29	.....	.....	1·70
Spring	46·8	56·5	37·2	.....	.....	86	19	6·69	....	3·72	8·17	5·9	.....	7·28
June	58·6	69·3	47·8	61·5	57·6	90	35	1·65	3·04	3·04	0·76	....	....	1·65
July	62·0	74·7	49·2	66·2	60·7	95	41	0·80	2·17	0·30	0·92	.....	....	0·80
August	62·5	74·8	50·2	68·4	60·4	90	39	0·76	2·96	0·23	0·98	.....	.....	0·76
Summer	61·0	72·9	49·0	.....	.....	95	35	3·21	.....	3·57	2·66	.....	.....	3·21
September	56·3	66·5	46·0	60·2	52·8	81	31	1·84	4.96	1·76	0·44	.....	.....	1·84
October	48·8	56·4	41·1	51·1	46·8	69	28	3·20	5·69	1·23	1·91	.....	.....	3·20
November	41·8	48·0	35·1	49·5	34·1	64	10	7·52	13·82	6·05	10·36	5·0	29·1	8·02
Fall	49·0	57·0	40·9	.....	.....	81	10	12·56	.....	12·04	12·71	5·0	.....	13·06
Year	49·0	57·7	40·2	.....	.....	95	7	39·73	.....	31·49	46·09	32·6	.....	42·99
Snowfall in wet or dry year										16·4	15·0			
Total Precipitation in wet or dry year										33·13	47·59			

VANCOUVER ISLAND

Lat. N. 49° 10'
Nanaimo Long. W. 123° 57'.
Height above sea level, 125 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Precipitation from 1892 to 1912 **July, August 1911 and Aug. 1912, missing** **Temperature 1901-1902.**

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest	Extreme Lowest	Average Monthly Fall	Greatest Amount in One Month.	Rainfall in Driest Year. 1892	Rainfall in Wettest Year. 1901	Average Monthly Fall.	Greatest Amount in One month.	Total
December	39·2	43·4	35·0	40·5	36·9	55	3	6·71	12·94	4·19	10·41	1·8	10·0	6·89
January	35·9	40·7	41·1	38·9	29·1	59	1	5·24	11·01	1·20	8·38	11·3	40·0	6·37
February	38·7	44·1	33·4	42·3	31·1	56	11	4·50	11·08	1·38	8·51	7·8	48·6	5·28
Winter	37·9	42·7	33·2			59	1	16·45		6·76	27·30	20·9		18·54
March	42·3	49·8	34·8	46·7	38·3	68	12	3·05	7·07	2·28	5·98	2·3	8·0	3·28
April	46·5	54·1	38·8	51·0	43·3	75	27	1·70	3·54	3·42	1·68	8.	0·5	1·70
May	54·0	62·8	45·2	56·4	50·4	85	29	2·02	3·73	3.67	0·91			2·02
Spring	47·6	55·6	39·6			85	12	6·77		9·37	8·57	2·3		7·00
June	58·4	67·5	49·3	60·9	54·5	87	33	1·92	3·12	0·44	0·94			1·92
July	63·9	73·5	54·2	67·6	59·6	93	40	0·82	2·02	2·02	0·96			0·82
August	63·4	73·1	53·7	66·5	59·2	94	38	0·75	1·77	0·86	1·39			0·75
Summer	61·9	71·4	52·4			94	33	3·49		3·32	3·29			3·49
September	57·1	65·2	49·0	58·4	54·5	84	34	2·08	5·38	3·83	0·40			2·08
October	49·5	56·0	42·9	52·1	44·9	71	26	3·11	5·91	1·44	2·31			3·11
November	43·1	47·7	38·6	45·8	40·2	63	14	8·52	16·63	7·18	11·18	2·2	10·0	8·74
Fall	49·9	56·3	43·5			84	14	13·71		12·45	13·89	2·2		13·93
Year	49·3	56·5	42·2			94	1	40·42		31·91	53·05	25·4		42·96
Snowfall in wet or dry year										8·2	31·5			
Total precipitation										32·73	56·20			

VANCOUVER ISLAND.

Quamichan { Lat. N. 48° 47′.
Long. W. 123° 42′
Height above sea level. 100 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Temperature from May 1885 to Sept. 1896, 1899, Feb. 1901 to June 1903. Precipitation to 1901.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in one Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in one Month.	Total.
										1895	1891			
December	39·4	47·7	31·0	45·4	32·6	63	10	5·80	11·64	3·00	9·77	7·4	17·0	6·54
January	34·9	42·8	27·1	39·8	26·7	63	− 1	3·88	7·10	2·50	2·88	16·9	51·0	5·57
February	36·4	44·8	28·0	42·9	26·3	61	3	2·94	5·20	1·00	1·30	13·6	58·5	4·30
Winter	36·9	45·1	28·7	..	..	63	− 3	12·62	....	6·50	13·95	37·9	.....	16·41
March	42·3	53·1	31·4	48·2	38·1	70	8	2·98	5·05	3·25	3·35	1·4	6·2	3·12
April	47·2	58·7	35·8	53·0	43·0	81	22	2·92	5·86	2·20	5·86	s	0·5	2·92
May	53·9	66·4	41·5	57·6	48·9	89	24	2·10	4·20	4·20	0·60	....	....	2·10
Spring	47·8	59·4	36·2	.....	...	89	8	8·00	... ..	9·65	9·81	1·4	.....	8·14
June	58·6	72·6	44·6	62·1	53·7	95	32	1·16	3·86	0·90	0·26	.....	.....	1·16
July	63·2	79·8	46·6	65·9	60·1	96	31	0·72	1·97	0·50	0·00	..	.....	0·72
August	62·1	77·8	46·5	65·4	56·1	94	34	0·66	2·53	0·40	2·53	.....	.....	0·66
Summer	61·3	76·7	45·9	.....	.....	96	31	2·54	. ..	1·80	2·79	....	....	2·54
September	54·9	69·2	40·6	58·9	52·4	91	25	2·33	3·95	0·50	3·81	.....	.....	2·33
October	48·9	61·1	36·8	52·0	46·1	80	20	3·31	6·31	0·70	3·60	s	0·7	3·31
November	43·2	53·3	33·0	47·3	40·0	69	16	5·15	11·05	4·30	7·40	1·0	6·0	5·25
Fall	49·0	61·2	36·8	.....	.....	91	16	10·79	.....	5·50	14·81	1·0	... ..	10·89
Year	48·8	60·6	36·9	.....	.....	96	− 3	33·95	.....	23·45	41·36	40·3	.....	37·98
Snowfall in wet or dry year										58·2	17·8			
Total precipitation in wet or dry year										29·27	43·14			

VANCOUVER ISLAND

Quatsino { Lat. N. 50° 52′.
Long. W. 128° 3′
Height above sea level, — feet
(Some observations taken at Winter Harbour.)

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1896 to 1913 (occasional breaks in records)

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1912.	1906.			
December	40·4	44·9	35·8	44·1	35·2	55	21	17·04	30·33	13·97	23·42	3·0	39·0	17·34
January	36·3	40·6	32·1	39·0	30·0	55	11	11·80	19·79	11·88	17·36	8·3	21·5	12·63
February	38·1	42·7	33·4	41·6	35·1	59	14	10·55	17·00	8·03	8·32	5·4	28·9	11·09
Winter	38·2	42·7	33·8	..	.....	59	11	39·39	..	36·88	49·10	16·7	.....	41·06
March	41·7	45·9	35·7	43·7	35·3	68	18	8·78	17·84	1·71	10·06	3·3	10·5	9·11
April	42·7	50·3	37·0	45·9	41·0	69	27	7·33	18·10	3·56	6·86	3·6	26·4	7·69
May	48·9	55·0	42·8	51·8	46·5	83	30	5·82	10·00	2·82	3·06	..	.....	5·82
Spring	44·4	50·4	38·5	.....	.....	83	18	21·93	.....	8·09	19·98	6·9	.....	22·62
June	53·4	60·2	46·6	56·0	50·9	82	32	4·63	10·59	1·15	9·28	...	..	4·63
July	57·6	64·8	50·4	59·6	54·3	86	40	2·77	7·09	1·31	2·06	...	.....	2·77
August	57·8	65·1	50·5	60·4	53·5	88	40	4·05	15·62	1·84	5·37	.....	.....	4·05
Summer	56·3	63·4	49·2	.....	.....	88	32	11·45	.. ..	4·30	16·71	.....	.....	11·45
September	53·4	60·4	46·3	55·3	51·2	82	36	7·06	18·92	1·51	18·92	.....	.....	7·06
October	48·3	53·6	43·1	51·9	46·7	67	30	11·57	25·55	1·65	25·55	0·3	4·5	11·60
November	43·3	46·8	37·7	47·9	33·9	62	18	16·98	25·39	14·73	13·88	2·7	23·5	17·25
Fall	48·0	53·6	42·4	.....	.....	82	18	35·61	.....	17·89	58·35	3·0	.....	35·91
Year	46·7	52·5	41·0	....	.....	88	11	108·38	.....	67·16	144·11	26·6	.....	111·04
Snowfall in wet or dry year										4·0	21·5			
Total precipitation										67·56	165·29			

VANCOUVER ISLAND.

British Columbia, Victoria Waterworks, Royal Oak. { Lat. N. 48° 30′, Long. W. 123° 21′, Height above sea level, feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1895 to 1910.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898.	1899.			
December								7·90	12·15	3·00	6·64	2·2	16·5	8·12
January								4·70	6·20	2·26	5·65	5·4	16·5	5·24
February								4·14	6·47	5·00	4·07	2·3	13·0	4·37
Winter								16·74		10·26	16·36	9·9		17·73
March								2·64	5·41	2·02	2·00	2·2	18·0	2·86
April								1·48	3·37	0·93	3·22			1·48
May								1·40	3·86	0·80	2·24			1·40
Spring								5·52		3·75	7·46	2·2		5·74
June								0·97	2·78	1·71	0·37			0·97
July								0·45	1·32	0·20	0·10			0·45
August								0·61	1·89	0·29	1·89			0·61
Summer								2·03		2·20	2·36			2·03
September								1·79	5·08	1·89	0·95			1·79
October								2·98	5·34	3·37	2·89			2·98
November								7·10	14·07	5·93	9·33	1·2	8·5	7·22
Fall								11·87		11·19	14·17	1·2		11·99
Year								36·16		27·40	40·35	13·3		37·49
Snowfall in wet or dry year										19·4	18·6			
Total precipitation										29·34	42·21			

VANCOUVER ISLAND

Victoria { Lat. N. 48° 24
Long. W. 123° 19
Height above sea level, 85 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1881 to 1910

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest amount in One Month.	Total.
										1907.	1893.			
December	41·5	45·1	37·8	45·1	38·1	59	8	5·86	12·11	4·78	9·45	0·5	8·5	5·91
January	39·2	43·5	35·0	43·3	32·5	56	2	3·88	6·54	2·64	2·93	6·3	21·2	4·51
February	40·3	45·0	35·6	44·6	30·0	60	6	3·08	6·20	3·89	2·87	1·5	37·0	3·53
Winter	40·3	44·5	36·2			60	2	12·82		11·31	15·25	11·3		13·95
March	43·1	49·2	37·0*	48·3	38·8	68	17	2·40	4·58	1·40	3·36	1·5	12·5	2·55
April	47·7	54·9	40·6	50·9	45·6	75	24	1·73	5·40	1·39	5·40		8	1·73
May	53·0	60·7	45·3	56·0	50·0	83	31	1·30	2·83	0·35	2·40			1·30
Spring	47·9	54·9	41·0			83	17	5·43		3·14	11·16	1·5		5·58
June	57·1	65·1	49·0	59·8	54·7	88	36	0·93	2·37	0·33	1·73			0·93
July	60·3	69·2	51·2	65·5	57·1	90	37	0·36	1·15	0·39	0·95			0·36
August	60·0	68·8	51·2	62·6	56·2	88	37	0·65	2·26	0·23	0·06			0·65
Summer	59·1	67·7	50·5			90	36	1·94		0·95	2·74			1·94
September	55·6	63·3	47·9	58·4	52·8	85	30	2·01	4·27	1·21	1·21			2·01
October	50·4	56·0	44·8	54·4	47·5	70	28	2·55	5·60	0·73	4·41		2·0	2·55
November	44·5	48·6	40·5	50·2	37·2	63	17	6·31	11·50	4·68	9·08	1·5	13·5	6·46
Fall	50·2	56·0	44·4			85	17	18·70		6·62	14·70	1·5		11·02
Year	49·4	55·8	43·0			90	−2	31·06		22·02	43·85	14·3		32·49
Snowfall in wet or dry year										5·6	71·8			
Total precipitation in wet or dry year										22·58	51·03			

NOTE.—On account of differences in the methods of measuring snowfall there exist several discrepancies between the precipitation records kept in the observatory in Victoria, and those in the Head Office at Toronto. These differences are so small as to be of no practical moment for any purpose. The averages of precipitation for 39 years ending in 1914 shew an annual total of 30·15 inches.

Section II.—LOWER FRASER VALLEY.

Agassiz { Lat N.—49° 14′.
Long. W.—121° 31′
Height above sea-level—52 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1891 to 1910.

Month	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1908	1891			
December	37·2	43·7	30·7	42·6	30·1	57	8	6·70	15·52	2·42	15·52	6·7	40·0	7·37
January	34·6	40·2	29·0	38·8	22·9	62	−13	4·83	13·04	3·04	7 00	16·1	58·5	6·44
February	36 8	43·6	30·0	45·2	27·8	71	−12	4·81	12·25	5 52	0 64	9·7	43·0	5·78
Winter	36·2	42·5	29·9	....	....	71	−13	16·34	.....	10 98	23·16	32·5	. ..	19·59
March	43·5	53·2	33 7	48·2	35·2	77	10	4 68	7·64	7·64	4·27	4·1	26·0	5·09
April	49 2	61·5	36 8	54·0	43·2	90	28	4·29	8·25	3·60	8·14	0·3	4·0	4·32
May	55·5	68·6	42·4	58·7	48·0	93	30	4 81	8·46	2·66	4·15	.....	.....	4·81
Spring	49·4	61·1	37·6	.....	.....	93	10	13·78	....	13 90	16·56	4·1	.....	14·22
June	59 0	71·8	46·2	62 1	52·3	95	35	4 82	12·06	4 68	4·18	.....	.....	4·82
July	64·2	78·3	50 0	69·4	55·8	100	38	2·26	4 58	2·60	1 04	....	.... .	2·26
August	63·3	78·2	48·4	70·3	54·3	103	38	2·75	6·40	1·24	3·94	...	.....	2 75
Summer	62·2	76 1	48·2	....	.....	103	35	9·83	.....	8·52	9·16	.....	.....	9·83
September	56·8	69·7	43·8	59 1	51·1	96	30	4·66	8·40	1·90	7 83	.....	.....	4 66
October	50·8	62·3	39·1	51·9	13·7	82	24	5·80	11·81	3·93	6·51	.....	.....	5·80
November	41 1	48·6	33 6	48·2	36 0	69	9	8·36	20·94	7·45	12 77	5 5	19·5	8·91
Fall	49·6	60·2	38·8	.....	.....	96	9	18·82	.....	13·28	27 11	5 5	.....	19·37
Year	49 3	59·9	38·6	... ..	.....	103	−13	58·77	.....	46·68	75·99	42 4	.... .	63·01
Snowfall in wet or dry year										8·0	52·0			
Total precipitation in wet or dry year										54·68	81·19			

LOWER FRASER

Chilliwack { Lat. 49° 10'
Long. W. 121° 57'
Height above sea-level, 91 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Temperature from 1898 to 1906. Precipitation from 1878 to 1881 and from 1898 to 1906.

Month.	Temperature							Precipitation in Inches						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in one Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in one Month.	Total.
										1880	1899			
December	37·2	43·8	30·5	39·5	32·8	57	18	8·23	12·68	8·73	11·94	4·8	15·5	8·71
January	36·3	41·3	31·2	37·3	34·1	54	10	5·82	10·55	6·03	8·08	13·2	52·0	7·11
February	38·2	45·0	31·4	42·5	33·3	61	8	5·83	10·98	2·27	6·45	5·5	19·4	6·38
Winter	37·2	43·4	31·0			64	8	19·88		17·03	26·47	23·5		22·23
March	43·0	51·1	34·8	51·0	39·9	75	18	3·88	9·03	3·73	2·72	4·2	16·2	4·30
April	50·0	60·6	39·5	52·6	47·0	89	28	3·67	7·51	1·76	1·14	0·3	3·0	3·70
May	55·3	65·4	45·2	57·5	52·3	91	33	4·08	6·75	4·28	5·37	·8	6·5	4·08
Spring	49·1	59·0	39·8			91	18	11·63		9·77	12·23	4·5		12·08
June	60·1	70·2	50·0	63·8	57·3	98	39	3·21	8·29	0·61	3·07			3·21
July	64·3	75·5	53·1	69·4	61·6	94	41	1·67	4·81	3·30	1·66			1·67
August	63·2	76·3	50·2	67·1	62·4	94	40	2·10	5·86	1·11	1·38			2·10
Summer	62·5	74·0	51·1			98	39	6·98		5·02	9·11			6·98
September	56·9	67·8	46·0	59·0	55·1	85	33	4·10	9·18	2·72	2·49			4·10
October	50·5	60·4	40·6	54·1	45·6	78	26	5·93	12·62	1·50	5·19			5·93
November	41·3	48·7	33·9	42·2	39·7	58	13	8·70	15·18	2·98	15·18	6·4	38·5	9·34
Fall	49·6	59·0	40·2			85	13	18·73		10·20	22·86	6·4		19·37
Year	49·7	58·8	40·5			98	8	57·22		42·02	70·67	34·4		60·66
Snowfall (wet or dry year)										74·0	31·6			
Total precipitation										49·42	83·37			

LOWER FRASER.

Coquitlam. { Lat. N. 49° 16′.
Long. W. 122° 51′.
Height above sea level, 34 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1902 to 1913.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest monthly Mean.	Lowest Monthly Mean.	Extreme Hightest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911.	1906.			
December								9·33	12·07	8·55	9·26	1·7	11·5	9·50
January								8·43	13·84	6·24	11·44	11·7	47·8	9·60
February								7·38	11·54	4·17	7·64	3·1	16·0	7·69
Winter								25·14		18·96	28·34	16·5		26·79
March								5·85	9·47	5·14	2·81	0·8	7·0	5·93
April								3·85	6·66	1·78	1·37	0·3	3·3	3·88
May								3·98	5·65	5·65	5·07			3·98
Spring								13·68		12·57	9·25	1·1		13·79
June								2·82	5·62	1·76	4·49			2·82
July								1·56	3·10	0·43	0·58			1·56
August								2·21	5·55	1·57	0.63			2·21
Summer								6·59		3·76	5·79			6·59
September								5·56	12·51	7·00	12·51			5·56
October								6·35	11·23	1·88	9·66			6·35
November								12·50	18·51	12·01	9·83	0·7	3·3	12·57
Fall								24·41		20·89	32·00	0·7		24·48
Year								69·82		56·18	75·29	18·3		71·65
Snowfall in wet or dry year										27·2	8·5			
Total precipitation										58·90	76·14			

LOWER FRASER

Hazelmere | Lat. N. 49° 3'. Long. W. 122° 44'. Height above sea level 290 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From Mar. 1, 1893, to July 31, 1901

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest	Extreme Lowest	Average Monthly Fall	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1895.	1894			
December	42·6	52·2	33·0	44·7	35·4	61	12	6·87	10·27	6·07	3·92	2·2	9·0	7·07
January	37·2	44·8	29·6	42·3	34·3	58	−5	5·81	8·39	5·28	7·73	7·1	12·0	6·52
February	39·9	48·0	31·8	42·8	36·1	60	5	1·17	7·41	5·14	3·01	3·7	8·6	4·84
Winter	39·9	48·3	31·5	.....	....	61	5	17·13		16·49	14·66	13·0		18·43
March	42·7	52·8	32·6	48·9	37·7	71	12	2·91	6·83	2·66	5·12	6·1	29·9	3·55
April	47·9	59·3	36·5	51·1	45·1	80	23	4·51	8·79	2·89	8·79	...	..	4·51
May	53·6	64·9	42·2	57·6	51·1	88	29	3·85	5·77	3·92	4·22		..	3·85
Spring	48·1	59·0	37·1	.....	.....	88	12	11·30	..	9·47	18·23	6·1	.....	11·91
June	56·5	69·3	43·7	60·1	55·4	89	31	3·16	5·29	2·46	4·90	.....	...	3·16
July	60·7	75·1	46·3	62·0	58·6	92	30	0·88	2·49	0·21	0·52	.....	...	0·88
August	60·9	75·1	46·8	66·6	58·7	91	32	1·21	4·57	0·41	R.	.....	....	1·21
Summer	59·4	73·2	45·6	.....	.....	92	30	5·25		3·08	5·42	.....	.	5·25
September	52·6	62·3	42·8	58·6	52·6	85	27	3·15	5·89	5·23	5·89	...	...	3·15
October	47·0	55·2	38·8	52·2	46·8	76	23	3·95	6·28	0·39	6·28	.....	.....	3·95
November	45·5	56·8	34·2	50·8	33·2	68	−3	5·95	10·05	5·09	7·85	2·7	8·0	6·22
Fall	48·4	58·1	38·6	....	.....	85	−3	13·05	..	10·71	20·02	2·7	.....	13·32
Year	48·9	59·7	38·2	.....	....	92	−5	46·73	.....	39·75	58·33	21·8	.....	48·91
Snowfall in wet or dry year										28·0	36·2			
Total precipitation										42·55	61·95			

LOWER FRASER.

Ladner { Lat. N. 49° 5′. Long. 123° 4″. Height above sea level, — feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1878 to 1882 and from 1898 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898	1881			
December	38·7	42·9	34·0	43·8	32·6	60	15	4·85	8·83	2·71	6·16	4·0	22·5	5·25
January	34·7	39·7	29·7	39·6	25·0	69	− 1	3·79	6·76	3·16	3·61	8·0	23·5	4·59
February	37·4	42·6	32·1	44·0	32·1	59	7	3·66	6·10	3·75	5·87	4·6	24·0	4·12
Winter	36·8	41·7	31·9	.....	.....	69	− 1	12·30	....	9·62	15·64	16·6	.....	13·96
March	41·6	48·9	34·4	45·9	36·5	68	10	2·85	7·29	0·85	3·83	1·4	8·0	2·99
April	46·7	56·2	37·2	52·1	43·5	75	21	1·81	3·15	1·73	3·07	....	0·3	1·81
May	52·3	62·6	42·0	56·4	48·9	78	27	2·40	5·65	1·65	3·12	.....	....	2·40
Spring	46·9	55·9	37·9	.....	.....	78	10	7·06	.....	4·23	10·02	1·4	.....	7·20
June	57·2	68·1	46·2	62·3	54·7	85	30	1·65	3·15	3·08	2·85	....	.....	1·65
July	63·6	72·4	54·8	64·4	55·0	85	36	1·20	3·84	0·47	1·00	.....	....	1·20
August	59·1	70·0	48·2	63·1	57·3	85	33	1·15	4·53	0·14	0·82	.....	....	1·15
Summer	60·0	70·2	49·7	.....	.....	85	30	4·00	.....	3·69	4·67	....	.....	4·00
September	54·6	64·4	44·8	57·8	52·6	78	26	2·76	8·84	1·99	1·55	....	...	2·76
October	49·2	57·9	40·4	51·4	43·4	78	18	4·11	6·60	3·24	5·11	.....	.....	4·11
November	43·6	49·9	37·4	48·1	36·2	62	10	6·01	12·32	6·11	3·00	1·5	15·0	6·16
Fall	49·1	57·4	40·9	.....	....	78	10	12·88	....	11·34	9·66	1·5	..	13·03
Year	48·2	56·3	40·1	....	...	85	−1	36·24	....	28·88	39·90	19·5	....	38·19
Snowfall in wet or dry year										8·3	35·5			
Total precipitation										29·71	43·54			

LOWER FRASER.

Matsqui Prairie. { First few years at Abbotsford.
Lat. N. 49° 7'. Long. W. 122° 16'.
Height above sea 80 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From January 1889 to August 1904

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year. 1899	Rainfall in Wettest Year 1900	Average Monthly Fall.	Greatest Amount in One Month.	Total.
December	36·4	41·5	31·4	42·1	33·3	61	5	7·84	14·77	3·05	11·57	6·2	25·8	8·46
January	34·3	40·1	28·5	39·1	27·5	58	−11	5·66	8·07	4·89	7·63	6·4	17·0	6·30
February	35·8	42·6	29·1	41·6	28·5	62	− 8	4·93	10·21	3·23	4·90	7·1	26·5	5·64
Winter	35·5	41·4	29·7	.....	.....	62	−11	18·43	..	11·17	24·10	19·7	....	20·40
March	41·3	49·8	32·8	47·7	36·0	72	8	5·08	7·18	4·60	7·04	3·5	11·5	5·43
April	47·5	57·2	37·8	51·0	43·7	84	21	4·75	9·46	3·95	4·92	S.	0·5	4·75
May	54·3	61·5	44·1	57·1	50·3	92	32	4·24	7·11	3·28	7·11	...	....	4·24
Spring	47·7	57·2	38·2	.....	.....	92	8	14·07	.. .	11·83	19·07	3.5	.....	14·42
June	58·8	68·9	48·6	61·9	55·9	93	37	3·93	8·22	2·06	8·22	.....	....	3·93
July	62·6	74·4	50·8	64·5	60·2	97	37	1·57	3·13	1·50	2·20	....	.....	1·57
August	62·4	74·1	50·6	67·5	59·6	94	37	1·47	3·88	2·45	2·36	.....	.....	1·47
Summer	61·2	72·5	50·0	.....	.....	97	37	6·97	.....	6·01	12·78	.....	.....	6·97
September	56·4	66·4	46·3	60·1	52·6	89	30	4·18	8·08	5·33	2·65	...	.....	4·18
October	49·8	58·2	41·3	54·3	46·2	76	24	5·08	10·13	3·70	7·65	.....	.....	5·08
November	41·0	47·1	35·0	48·5	29·1	68	10	8·83	13·74	3·79	4·83	2·7	11·0	9·10
Fall	49·1	57·2	40·9	.....	.....	89	10	18·09	.....	12·82	15·13	2·7	...	18·36
Year	48·4	57·1	39·7	....	... .	97	−11	57·56	.. ..	41·83	71·08	25·9	.....	60·15
Snowfall in wet or dry year										36·9	35·3			
Total precipitation in wet or dry year										45·52	74·61			

LOWER FRASER.

New Westminster { Lat. N. 49° 13'. Long. W. 122° 54'. Height above sea level, 330 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From Jan. 1877 to Dec. 1882; from Jan. 1888 to Dec. 1890; from June 1894 to Dec. 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1895.	1900.			
December	37·6	41·7	33·4	43·3	32·6	58	12	7·67	15·99	5·68	9·19	3·4	19·3	8·01
January	34·9	39·4	30·5	41·6	27·9	57	0	6·40	11·81	5·76	6·47	14·5	74·6	7·85
February	38·1	43·7	32·5	42·9	33·6	62	10	6·02	12·42	4·90	4·50	6·6	38·6	6·68
Winter	36·8	41·6	32·1	.....	.....	62	0	20·09	.. .	16·34	20·16	24·5	....	22·54
March	42·6	50·0	35·2	47·8	36·7	72	13	5·04	10·99	2·66	9·44	3·5	28·3	5·39
April	48·1	57·1	39·1	51·8	45·1	81	25	3·19	4·97	3·56	4·48	0·3	4·0	3·22
May	53·7	63·9	43·5	58·4	50·9	88	31	3·43	5·33	4·43	4·02	.....	.....	3·43
Spring	48·1	57·0	39·3	.....	.....	88	13	11·66	.....	10·65	17·94	3·8	.....	12·04
June	58·8	68·6	49·1	62·0	55·6	92	37	2·76	5·62	0·83	5·62	..	.....	2·76
July	63·1	73·5	52·6	67·1	59·5	94	38	1·50	5·57	0·46	1·59	....	.....	1·50
August	62·5	72·5	52·4	67·5	58·7	90	37	1·80	6·33	0·00	3·30	.....	.....	1·80
Summer	61·5	71·5	51·4	.....	.....	94	37	6·06	.....	1·29	10·51	....	.. ...	6·06
September	56·7	65·6	47·8	61·1	54·5	85	30	3·63	10·36	0·00	2·04	.....	...	3·63
October	49·4	56·1	42·7	54·2	44·5	75	24	5·40	8·82	0·91	8·82	.....	.....	5·40
November	41·6	46·4	36·7	48·5	31·1	62	5	8·68	14·66	5·97	7·75	4·5	27·5	9·13
Fall	49·2	56·0	42·4	.....	.....	85	5	17·71	.....	6·88	18·61	4·5	.....	18·16
Year	48·9	56·5	41·3	....	. .	94	0	55·52	... .	35·16	67·22	32·8	....	58·80
Snowfall in wet or dry year										65·6	24·5			
Total precipitation in wet or dry year										41·72	69·67			

LOWER FRASER

North Nicomen { Lat. N. 49° 12'.
Long. W. 122° 2'.
Height above sea level, 20 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From January 1, 1893, to December 31, 1913

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911.	1894.			
December	38·4	43·0	33·9	41·6	32·5	59	13	8·99	17·89	7·57	5·12	6·8	33·7	9·67
January	34·5	39·6	29·4	40·9	24·7	57	−13	7·20	12·69	5·47	6·52	13·7	51·5	8·57
February	37·5	43·3	31·6	43·1	28·9	62	− 8	7·25	15·46	2·33	6·05	9·1	30·5	8·16
Winter	36·8	42·0	31·6			62	13	23·44		15·37	17·69	29·6		26·40
March	42·5	50·3	34·6	48·5	37·1	72	12	5·69	10·85	5·10	7·56	3·9	19·6	6·08
April	48·7	58·2	39·1	52·4	45·2	83	27	4·95	11·76	2·97	11·76	S	0·9	4·95
May	54·7	64·9	44·6	58·0	51·5	91	32	4·65	9·96	5·22	6·67			4·65
Spring	48·6	57·8	39·4			91	12	15·29		13·29	25·99	3·9		15·68
June	59·0	69·4	48·6	62·5	55·6	92	35	4·07	10·67	1·55	5·96			4·07
July	64·5	76·0	52·9	69·4	60·7	95	40	1·82	4·71	1·61	2·48			1·82
August	63·4	74·2	52·5	67·7	60·2	99	38	2·11	5·92	2·41	0·40			2·11
Summer	62·3	73·2	51·3			99	35	8·00		5·57	8·84			8·00
September	57·7	67·0	48·4	60·1	53·9	89	33	4·82	10·67	7·21	10·39			4·82
October	50·4	57·5	43·2	55·0	46·2	74	26	7·62	14·63	1·79	13·38			7·62
November	43·0	48·1	37·8	48·6	37·9	68	9	12·22	22·05	11·76	12·71	4·4	37·0	12·66
Fall	50·3	57·5	43·1			89	9	24·66		20·76	36·48	1·4		25·10
Year	49·5	57·6	41·3			99	−13	71·39		54·99	89·00	37·9		75·18
Snowfall in wet or dry year										93·7	78·4			
Total precipitation wet or dry year										64·36	96·84			

LOWER FRASER.

Steveston (Garry Point). { Lat. N. 49° 21'.
Long. W. 123° 17'.
Height above sea level, —— feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1897 to 1913.

Month.	Temperature.							Precipitation by Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911.	1900.			
December	38·9	43·8	34·1	41·7	33·4	53	16	5·12	8·21	4·75	6·41	1·9	7·5	5·31
January	35·6	41·0	30·1	40·3	26·3	53	1	4·26	6·70	2·39	5·12	7·9	30·2	5·05
February	37·8	43·5	32·1	41·9	30·4	55	9	3·74	6·31	1·70	3·85	2·9	12·0	4·03
Winter	37·4	42·8	32·1	...	.	55	1	13·12	. . .	8·84	15·38	12·7	. . . .	14·39
March	40·9	47·5	34·2	45·2	37·5	60	11	2·33	6·79	1·13	6·79	2·0	12·0	2·53
April	46·2	54·0	38·4	49·0	43·1	71	26	1·92	3·25	1·46	3·25	..	...	1·92
May	52·2	60·4	43·9	54·2	48·1	75	31	2·35	3·80	3·42	2·43	...	.. ..	2·35
Spring	46·4	54·1	38·8	.....	....	75	11	6·60	.. .	6·01	12·47	2·0	.	6·80
June	56·6	65·3	47·9	58·9	54·9	83	37	1·86	3·84	1·31	3·68	....	....	1·86
July	60·5	70·0	50·9	63·4	58·3	81	39	0·96	2·75	0·54	1·01	....	.....	0·96
August	59·2	68·5	49·9	62·3	56·7	82	35	1·14	4·46	0·79	2·38	....	...	1·14
Summer	58·7	67·9	49·6	.....	.....	83	35	3·96	...	2·61	7·07	. .	. ....	3·96
September	53·7	62·3	45·1	56·0	52·3	71	25	2·48	7·82	2·68	1·16	..	....	2·48
October	48·0	56·0	40·1	51·1	43·9	68	23	3·35	6·08	1·24	1·23	...	....	3·35
November	42·2	48·1	36·3	48·6	33·0	62	5	6·83	10·72	4·91	5·74	2·1	9·5	7·04
Fall	48·0	55·5	40·5	.....	....	71	5	12·66	.. .	8·83	11·43	2·1	.	12·87
Year	47·6	55·1	40·2	....	....	83	1	36·34	.	26·32	46·35	16·8	.	38·02
Snowfall (wet or dry year)										30·0	12·7			
Total precipitation (wet or dry year)										29·32	47·62			

NOTE.—The driest summer was that of the year 1907, when the rainfall for June, July and August respectively, was: 0·60, 0·07, 0·81.

Vancouver { Lat. 49° 47'
Long. 123° 5'.
Height above sea level 136 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1898 to 1913

Month.	Temperature							Precipitation in Inches.						
								Rain				Snow.		
	Mean	Mean Maximum	Mean Minimum	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911	1900			
December	38·9	42·8	35·0	42·7	33·9	58	17	7·27	9·55	7·22	9·22	2·9	16·0	7·56
January	35·0	39·2	30·9	40·8	27·3	55	2	7·12	10·54	4·15	7·21	14·4	57·3	8·56
February	37·8	43·1	32·5	42·2	24·6	58	10	5·90	10·17	3·27	5·35	3·2	17·1	6·22
Winter	37·2	41·7	32·8	.....	.....	58	2	20·29	.....	14·64	21·81	20·5	.....	22·34
March	41·9	49·0	34·8	45·7	39·4	61	15	4·31	10·29	3·05	10·29	1·5	11·0	4·46
April	47·0	55·8	38·3	49·8	44·9	79	27	3·09	5·29	1·96	4·51	.....	....	3·09
May	53·5	62·3	44·7	56·1	51·2	80	33	3·56	5·39	5·39	4·20	....	....	3·56
Spring	47·5	55·7	39·3	.	.....	80	15	10·96	.....	10·40	19·00	1·5	.. .	11·11
June	58·4	67·7	49·1	61·3	55·7	88	36	2·82	5·42	2·09	5·42	... ..	. ..	2·82
July	65·9	78·8	53·0	66·1	60·5	90	43	1·33	2·45	0·92	1·05	.....	.....	1·33
August	61·5	71·0	52·0	62·8	59·6	92	39	1·71	5·86	1·23	3·60	.....	....	1·71
Summer	61·9	72·5	51·4	.....	.....	92	36	5·86	.....	4·24	10·07	....	.....	5·86
September	55·7	64·0	47·4	57·5	51·1	82	30	4·29	9·09	4·41	1·61	.....	.....	4·29
October	49·2	55·7	42·6	53·0	44·2	69	23	5·69	9·20	2·24	9·20	.....	.....	5·69
November	42·4	47·1	37·6	44·5	39·5	63	15	10·97	18·99	9·98	8·80	3·1	27·0	11·28
Fall	49·1	55·6	42·5	.... .	.....	82	15	20·95	... .	16·63	19·61	3·1	.....	21·26
Year	48·9	56·4	41·5	.....	.....	92	2	58·06	.....	45·91	70·49	25·1	. ....	60·57
Snowfall in wet or dry year										63·6	18·0			
Total precipitation										52·27	72·29			

Section III—THOMPSON RIVER.

Enderby. { Lat. N. 50° 32′.
Long. W. 119° 7′.
Height above sea-level—1180 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1891 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1896	1899			
December	27·9	33·4	22·5	35·7	22·3	48	−19	0·69	2·17	2·17	0·64	16·1	27·3	2·30
January	21·9	29·2	14·1	29·6	12·9	49	−27	0·57	3·60	0·32	3·60	20·2	41·3	2·59
February	24·7	34·7	14·6	31·9	20·7	54	−27	0·35	1·42	0·09	0·40	12·7	30·8	1·62
Winter	24·8	32·4	17·1			54	−27	1·61		2·58	4·64	49·0		6·51
March	34·5	45·2	23·8	42·5	28·0	65	−15	0·65	1·77	0·00	0·59	4·6	16·5	1·11
April	46·5	60·5	32·4	50·5	44·0	88	16	0·70	1·86	1·33	0·71	0·7	3·5	0·77
May	55·0	70·3	39·6	58·9	52·0	97	22	1·31	3·29	1·56	1·44			1·31
Spring	45·3	58·7	31·9			97	−15	2·66		2·89	2·74	5·3		3·19
June	61·0	75·5	46·6	66·4	54·5	102	30	2·13	3·95	1·21	2·0			2·13
July	65·5	81·7	49·2	68·5	62·6	103	36	1·48	2·58	0·00	1·52			1·48
August	63·7	80·1	47·2	69·8	59·4	102	27	1·23	3·03	0·62	3·03			1·23
Summer	63·4	79·1	47·7			103	27	4·84		1·83	6·61			4·84
September	54·4	68·8	40·0	57·8	52·6	98	21	1·70	3·48	0·87	1·78			1·70
October	44·2	56·3	32·2	46·4	42·4	83	14	1·51	3·05	1·19	1·86			1·51
November	31·6	39·0	24·2	41·6	21·1	64	−17	1·49	3·56	0·60	3·56	12·5	31·0	2·74
Fall	43·4	54·7	32·1			88	−17	4·70		2·66	7·20	12·5		5·95
Year	44·2	56·2	32·2			103	−27	13·81		9·96	21·19	66·8		20·49
Snowfall										85·3	68·3			
Total										18·49	28·02			

SECTION THOMPSON RIVER.

Griffin Lake { Lat. N. 50° 56'.
Long. W. 180° 29'.
Height above sea level, 1,517 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1893 to 1900 (Broken period.)

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest amount in One Month.	Total.
December	31·2	40·4	22·0	35·9	18·4	53	−12							1·30
January	25·6	32·1	19·0	35·4	16·1	50	−28							3·74
February	29·5	33·0	26·0	35·4	18·4	60	−27							4·11
Winter	28·8	35·2	22·3			60	−28							12·15
March	34·2	43·8	24·5	41·4	31·0	62	−12							2·17
April	45·6	58·8	32·4	54·4	42·5	95	20							1·87
May	55·7	68·8	42·5	62·1	52·6	96	25							2·48
Spring	45·2	57·1	33·1			96	−12							6·52
June	60·6	75·5	45·6	66·4	52·3	108	20							2·58
July	65·9	82·4	49·4	68·1	59·8	110	36							2·31
August	65·6	81·4	49·8	73·3	59·5	110	38							2·62
Summer	64·0	79·8	48·3			110	20							7·51
September	51·8	59·9	43·6	58·8	44·6	93	12							1·77
October	39·9	46·4	33·5	45·8	35·4	73	11							2·59
November	34·8	45·2	24·4	43·2	21·8	55	−13							3·59
Fall	42·2	50·5	33·8			93	−13							7·95
Year	45·0	55·6	34·4			110	−28							34·13
Snowfall in wet or dry year										192·0	123·2			
Total precipitation in wet or dry year										38·55	64·69			

THOMPSON RIVER.

Kamloops { Lat. N. 50° 41′.
Long. W. 120° 29′
Height above sea level, 1,245 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1892 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Maximum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year. 1908	Rainfall in Wettest Year. 1900	Average Monthly Fall.	Greatest Amount in One Month.	Total.
December	28·8	32·6	24 9	35·1	21·3	59	−17	0 20	0 64	0 19	0·56	13·5	20·2	1·55
January	22·4	28·3	16·5	31·9	3·7	51	−31	0·13	0 60	0·16	0 24	7·7	21·1	0·90
February	26·5	33·1	19 6	35·7	15 6	61	−27	0 20	1·17	0 04	0 18	6·0	24·4	0·80
Winter	25·9	31·4	20 3	....	.....	64	- 31	0·53	...	0·39	0 98	27·2	...	3 25
March	37·6	47 3	27·8	46 5	28 3	70	− 6	0 20	0 83	0·00	0·17	1 2	4 6	0 32
April	49·7	61 1	38 3	54 3	45 7	92	19	0 36	1 36	0·27	0 18	S.	0·7	0 36
May	57·5	70·3	44 8	62 0	53·6	100	26	0 93	2·50	0·73	1·79	0·0	.. .	0 93
Spring	48·3	59·6	37·0	.....	....	100	− 6	1 49	... .	1·00	2 14	1·2	....	1 61
June	64·6	76·1	52·7	68·6	59 8	101	35	1·23	3 07	0·89	1 63	.....	. ...	1 23
July	69·6	82·7	56·5	78·1	66·2	102	42	1·27	3·50	0·18	1 78	....	.....	1·27
August	68·1	80·9	55·4	75 8	62·3	101	35	1 05	3 73	1·46	2 22	. ..	...	1·05
Summer	67·4	80·0	54 9	.....	.....	102	35	3·55	...	2·83	5 63	. ..	...	3·55
September	58·4	69·3	47·4	60·5	51 1	93	28	0 94	2 34	0 10	0 56	0 0	.....	0 94
October	47·8	56·2	39·3	52·1	41·2	82	16	0·57	1·41	0 65	0·61	0 2	3 0	0 59
November	35·8	41·5	30·2	46·0	15·5	72	−22	0·40	1 23	0 07	0·23	6·5	23·3	1·05
Fall	47·3	55·7	39·0	.....	.....	93	−22	1·91	.....	0 82	1·43	6 7	.....	2 58
Year	47·2	56·7	37·8	....	.....	102	−31	7·48	....	5·04	10·18	35·1	.. .	10 95
Snowfall in wet or dry year										21·9	6 6			
Total precipitation										7.23	10 84			

THOMPSON RIVER.

Nicola Lake. { Lat. N., 50° 9'.
Long. W., 120° 39'.
Height above sea level, = 2,120 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Temperature from January 1896 to Dec. 1913.
Precipitation from January 1878 to Dec. 1913.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1880.	1900.			
December	27·3	33·7	20·9	34·6	17·7	57	– 8	0·27	0·72	0·53	0·55	6·3	22·8	0·90
January	19·3	26·5	12·1	31·6	0·3	55	– 41	0·17	0·80	0·00	0·12	6·8	17·0	0·85
February	23·9	31·9	16·0	34·4	9·5	57	– 31	0·23	1·16	0·00	0·10	6·1	21·2	0·84
Winter	23·5	30·7	16·3	.....	.....	57	– 41	0·67	.....	0·53	0·77	19·2	.....	2·59
March	32·5	42·3	22·7	40·6	20·7	65	– 25	0·22	0·95	0·13	0·36	3·9	16·5	0·61
April	43·5	55·7	31·3	48·6	41·7	84	12	0·42	1·50	0·09	0·51	0·4	2·1	0·46
May	51·5	63·7	39·3	56·1	48·3	91	25	1·04	2·37	0·29	0·69	..	.....	1·04
Spring	42·5	53·9	31·1	.....	.....	91	– 25	1·68	.....	0·51	1·56	4·3	.....	2·11
June	57·1	68·6	45·5	62·2	52·9	93	33	1·32	2·45	0·09	2·27	.....	...	1·32
July	60·9	74·9	47·0	69·1	59·4	92	37	1·02	3·18	0·47	1·22	....	...	1·02
August	60·9	73·5	48·4	68·1	56·8	93	28	1·17	3·46	0·74	3·26	....	.....	1·17
Summer	59·6	72·3	47·0	.....	...	93	28	3·51	...	1·30	6·75	.....	..	3·51
September	52·5	64·5	40·5	56·5	49·5	86	24	1·13	2·57	0·69	1·27	.....	.....	1·13
October	44·1	54·4	33·8	48·0	37·4	77	12	0·66	1·77	0·21	1·63	0·2	2·0	0·68
November	32·6	39·8	25·4	41·9	12·9	66	– 19	0·79	1·58	0·16	0·45	5·7	22·8	1·36
Fall	43·0	52·9	33·2	.....	.....	86	– 19	2·58	.....	1·06	3·35	5·9	.....	3·17
Year	42·2	52·4	31·9	.....	.....	93	– 41	8·44	.....	3·40	12·43	29·4	...	11·38
Snowfall										56·1	19·4			
Total precipitation										9·01	14·37			

THOMPSON RIVER.

Salmon Arm { Lat. N. 50° 42′. Long. W. 119° 35′. Height above sea level 1,152 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1896 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1896	1910			
December	29·1	33·2	25·0	32·4	22·9	48	− 5	0·42	2·10	0·30	0·45	16·9	24·0	2·11
January	18·7	25·0	12·4	29·0	8·8	48	−27	0·26	0·73	0·27	0·49	22·2	33·3	2·48
February	26·3	33·9	18·7	31·8	16·8	55	−20	0·35	1·27	0·00	0·00	11·2	17·7	1·47
Winter	24·7	30·7	18·7	....	.....	55	−27	1·03	....	0·57	0·94	50·3	.....	6·06
March	34·3	44·6	24·0	42·7	28·6	62	−14	0·34	0·74	0·00	0·21	2·8	9·8	0·62
April	46·1	58·1	31·1	49·8	43·0	85	19	0·92	2·10	0·71	0·58	S	0·3	0·92
May	55·5	68·5	42·4	58·2	51·2	91	24	1·33	2·64	1·34	0·92	..	.....	1·33
Spring	45·3	57·1	33·5	.....	.....	91	−14	2·59	.....	2·05	1·74	2·8	....	2·87
June	61·3	74·9	48·0	65·5	51·5	97	27	1·74	3·80	0·65	3·13	....	.....	1·74
July	66·8	81·9	51·8	74·2	62·4	101	36	1·24	3·22	0·00	0·89	.....	....	1·24
August	63·5	77·7	49·2	66·9	60·8	94	32	0·98	2·08	0·57	1·08	.....	.....	0·98
Summer	63·9	78·2	49·7	.....	.. ..	101	27	3·96	.. ..	1·22	5·10	....	...	3·96
September	55·2	67·8	42·6	58·6	48·2	89	25	1·71	3·64	1·16	0·73	.....	.....	1·71
October	43·3	54·3	32·4	49·1	41·4	74	18	1·47	3·22	1·77	3·22	.. .	.....	1·47
November	34·1	39·7	28·5	40·3	19·2	60	−21	1·63	3·66	1·10	3·66	8·6	19·5	2·49
Fall	44·2	53·9	34·5	.....	.....	89	−21	4·81	.....	4·03	7·61	8·6	.....	5·67
Year	44·5	55·0	31·1	.....	.....	101	−27	12·39	. . .	7·87	15·39	61·7	.....	18·56
Snowfall									.....	87·5	40·3			
Total precipitation										16·62	19·42			

THOMPSON RIVER.

Spence's Bridge { Lat. N. 50° 23'. Long. W. 121° 20'. Height above sea level, 770 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1872 to 1883

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1883	1877			
December	28·6	34·8	22·3	32·9	20·0	60	−12	0·42	1·04	0·05	0·76	6·0	18·0	1·02
January	18·5	25·0	12·0	30·7	1·8	56	−29	0·10	0·90	0·06	0·55	6·9	14·5	0·79
February	28·5	37·5	19·4	36·3	24·1	58	−17	0·44	1·38	0·75	1·38	6·2	23·5	1·03
Winter	25·2	32·4	14·6	.....	....	60	−29	0·93	..	0·86	2·69	19·1	...	2·84
March	38·4	47·7	29·0	49·5	31·6	78	− 6	0·52	1·69	0·00	0·33	4·7	9·9	0·99
April	51·0	63·7	38·2	52·9	48·6	83	15	0·27	0·43	0·25	0·38	S.	S.	0·27
May	59·4	72·2	46·5	62·4	54·7	92	30	0·87	1·56	0·40	1·41	....	..	0·87
Spring	49·6	61·2	37·9	.. ...	.....	92	− 6	1·66	.....	0·65	2·12	1·7	...	2·13
June	64·6	77·1	52·1	68·2	61·9	102	40	0·63	1·50	0·00	0·75	.....	...	0·63
July	70·8	81·1	57·4	75·8	69·2	105	47	0·75	2·25	0·00	1·25	..	.....	0·75
August	69·2	82·1	56·1	73·3	63·9	100	43	0·68	1·26	0·17	1·07	..	....	0·68
Summer	68·2	81·1	55·3	.....	.....	105	40	2·06	.. ...	0·17	3·07	. ....	. ...	2·06
September	60·5	71·8	49·2	62·6	56·5	92	31	0·67	2·37	0·00	2·37	.....	.....	0·67
October	49·9	59·8	39·9	52·2	45·0	81	23	0·32	0·78	0·00	0·01	.....	..	0·32
November	35·1	42·5	27·6	37·5	23·9	67	0	0·52	1·27	0·00	1·12	4·3	18·0	0·95
Fall	48·5	58·0	38·9	.....	....	92	0	1·51	....	0·00	3·50	4·3	....	1·94
Year	47·9	58·2	36·7	.....	....	105	−29	6·16	.....	1·68	11·38	28·1	.	8·97
Snowfall										9·8	5·8			
Total precipitation										2·66	11·96			

SIMILKAMEEN VALLEY.

Hedley { Lat. N.—49° 35′.
Long. W.—120° 10′.
Height above sea level, 1,771 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From May 1904 to December 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1908	1909			
December	28·5	34·7	22·2	33·5	23·6	58	− 7	0·09	0·42	0·09	0·00	6·1	16·0	0·70
January	20·0	27·4	12·5	26·4	6·4	50	−26	0·49	2·75	0·32	0·40	5·4	13·8	1·03
February	27·5	35·5	19·4	33·6	21·3	60	−12	0·67	2·65	0·05	2·77	5·4	8·4	1·21
Winter	25·3	32·5	18·0	.....	...	60	−26	1·25	...	0·46	3·17	16·9	....	2·94
March	36·6	48·0	25·1	41·4	33·0	67	0	0·26	0·56	0·50	0·08	1·8	9·2	0·44
April	46·8	59·5	34·1	51·6	42·2	89	20	0·39	1·35	0·43	0·33	0·6	5·1	0·45
May	54·0	66·9	41·2	56·9	51·1	89	29	1·56	3·47	1·54	2·40	...	.	1·56
Spring	45·8	58·1	33·5	.....	....	89	0	2·21	.....	2·47	2·81	2·4	.....	2·45
June	60·4	73·1	47·6	64·8	56·3	100	36	1·39	2·25	0·48	1·27	...	...	1·39
July	67·3	81·7	52·8	69·5	61·3	100	40	1·21	3·10	0·78	3·10	..	...	1·21
August	64·8	78·8	50·8	67·0	61·2	98	32	0·98	1·64	1·28	0·06	... ..	.....	0·98
Summer	64·2	77·9	50·4	.....	.....	100	32	3·58	.....	2·54	4·43	.....	.	3·58
September	56·8	70·1	43·6	61·1	53·9	92	28	0·68	1·82	0·47	0·52	.	....	0·68
October	45·8	56·5	35·2	50·2	39·6	88	15	0·66	1·06	0·51	1·06	0·4	2·5	0·70
November	35·6	43·2	28·0	39·2	28·3	72	− 8	0·70	2·11	0·22	1·91	2·7	8·7	0·97
Fall	46·1	56·6	35·6	....	....	92	− 8	2·04	.....	1·20	3·49	3·1		2·35
Year	45·3	56·3	34·4	....	...	100	−26	9·03	..	6·67	13·90	22·4	.	11·32
Snowfall in wet or dry year										14·7	12·9			
Total precipitation in wet or dry year										8·14	15·19			

SIMILKAMEEN VALLEY.

Hedley Nickel Plate Mine { Lat. N. 49° 20'. Long. W. 119° 59'. Height above sea-level 4,500 feet

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From February 1904 to December 1913, part of 1909 missing.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall	Greatest Amount in One Month.	Total.
										1913	1905			
December	22·2	29·7	14·6	24·9	15·2	50	−21	0·02	0·12	0·00	0·12	20·8	41·0	2·10
January	17·1	25·0	9·2	24·4	7·7	50	−35	0·02	0·20	0·00	0·20	21·3	32·5	2·15
February	21·2	29·9	12·5	28·0	11·9	52	−26	R.	0·01	0·00	0·01	18·8	33·0	1·88
Winter	20·2	28·2	12·1	....	.....	52	−35	0·04	.....	0·00	6·33	60·9	.....	6·13
March	25·9	35·2	16·6	32·5	20·9	55	−12	0·05	0·43	0·00	0·43	13·5	22·5	1·40
April	35·0	45·4	24·5	39·6	24·4	74	− 3	0·24	1·19	0·00	0·71	34·6	218·0	3·70
May	40·6	50·4	30·8	53·8	28·9	84	10	1·31	4·65	0·56	0·29	25·5	101·5	3·86
Spring	33·8	43·7	24·0	.....	.....	84	−12	1·60	....	0·56	1·43	73·6	.....	8·96
June	47·0	57·8	36·2	63·5	38·1	89	18	1·92	3·46	3·46	2·51	8·2	17·5	2·74
July	56·2	68·8	43·6	66·8	50·5	99	25	1·42	4·14	0·26	4·14	0·6	2·0	1·48
August	52·8	64·5	41·1	66·9	46·1	98	22	1·49	2·49	1·20	0·79	1·5	8·0	1·64
Summer	52·0	63·7	40·3	....	.....	99	18	4·83	.....	4·92	7·44	10·3	.....	5·86
September	47·0	57·6	36·4	56·6	41·7	87	19	0·70	1·21	0·35	1·07	3·3	8·0	1·03
October	36·7	45·0	28·3	43·8	30·4	71	− 5	0·60	1·06	0·00	0·55	11·8	29·0	1·78
November	29·4	37·1	21·8	36·6	22·4	56	− 9	0·05	0·20	0·00	0·17	22·5	54·5	2·30
Fall	37·7	46·6	28·8	.....	....	87	− 9	1·35	.....	0·35	1·79	37·6	....	5·11
Year	35·9	45·5	26·3	.....	....	99	−35	7·82	.....	5·83	10·99	182·4	.....	26·06
Snow fall in wet or dry year										104·0	102·3			
Total precipitation in wet or dry year										16·23	21·22			

OKANAGAN VALLEY.

Kelowna, Okanagan Mission { Lat. N. 49° 52'. Long. W. 119° 29'. Height above sea level, 1,200 feet.

MONTHLY, SEASONAL MEANS AND EXTREMES.

From 1899 to 1912.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One month.	Total.
										1908.	1903.			
December	30·3	35·8	24·7	34·8	25·6	52	− 3	0·43	2·42	0·27	0 84	9·5	20·0	1·38
January	23·6	30·5	16·7	32·7	10 0	53	−22	0·29	1·73	0 22	0·02	10·4	18·2	1·33
February	25·7	33·7	17·7	34·6	15 7	54	−19	0·48	2·50	0·51	0 07	6 2	13·9	1·10
Winter	26·5	33·3	19 7	.....	.....	54	−22	1·20	....	1 00	0 93	26·1	.....	3·81
March	36·8	46·9	26·6	43·4	28·3	62	− 6	0·43	1·45	0·58	0·49	4·1	18·5	0·84
April	46·6	59·5	33·7	50 8	44·2	81	19	0·44	1·47	0·41	0·25	0·2	1·3	0·46
May	55·4	68 8	42 0	57·4	51·5	91	25	1·03	2·08	0·90	0·22	.....	.....	1·03
Spring	46·3	58·4	34·1	.....	.....	91	− 6	1 90	.. ..	1·89	0·96	4·3	.....	2·33
June	61·2	74·5	47·9	64·6	56 8	93	34	1 32	2 21	0 34	2·21	.. ..	.....	1 32
July	66·7	81·2	51·9	73·4	63·5	96	39	1·17	3·48	0·25	3·48	.....	.....	1·17
August	63·7	77 4	50·1	67 5	60 5	95	33	1·03	2·51	0 87	1·28	.....	.....	1·03
Summer	63·8	77·7	50·0	... ..	.....	96	33	3·52	.....	1 46	6·97	.....	.....	3·52
September	51·8	67·2	42·4	59·7	51·8	85	26	1·17	2 23	0 48	1 76	.....	.....	1·17
October	44·8	55·6	33·9	48·4	41·4	75	17	0·85	1·48	0 68	0 61	.. ..	0·1	0·85
November	36·4	43·3	29·5	42·4	28·5	65	− 9	1·04	2·20	0 25	0 91	9·5	11·1	1·99
Fall	45·4	55·4	35·3	.....	. ..	85	− 9	3·06	.....	1·41	3 28	9·5	....	4 01
Year	45·5	56·2	34 8	.. ..	.....	96	−22	9·68	.....	5·76	12·14	39 9	..	13·67
Snowfall in wet or dry year										20·3	38·5			
Total precipitation in wet or dry year										7 79	15·99			

SIMILKAMEEN VALLEY.

Keremeos. { Lat. N.—49° 13'. Long. W.—119° 51'. Height above sea-level, 1,372 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From January 1891 to April 1896 and from April 1912 to December, 1913.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1895	1913			
December	28·5	33·2	23·7	32·0	24·4	49	− 2	0·25	1·30	0·00	0·00	1·7	4·0	0·42
January	22·0	28·7	15·4	25·2	15·7	49	23	0·06	0·30	0·05	0·00	2·4	9·8	0·30
February	27·2	34·4	19·9	35·1	21·6	71	−22	0·04	0·20	0·00	0·02	2·7	6·5	0·31
Winter	25·9	32·1	19·7	....	.....	71	−23	0·35	.....	0·05	0·02	6·8	....	1·03
March	37·7	47·5	27·9	40·8	34·8	68	9	0·38	1·03	0·56	0·00	0·4	3·0	0·42
April	47·7	59·9	35·4	51·5	45·5	81	22	0·62	1·15	0·39	0·53	0·1	0·5	0·63
May	58·4	69·3	47·5	58·7	54·2	89	32	0·96	1·60	1·31	1·60	...	.	0·96
Spring	47·9	58·9	36·9	.....	.....	89	9	1·96	....	2·26	2·13	0·5	....	2·01
June	64·2	74·8	53·6	66·7	59·2	96	37	1·28	2·23	0·46	2·23	.....	..	1·28
July	68·4	80·7	56·1	75·9	67·7	99	43	0·66	1·72	0·11	0·20	.....	....	0·66
August	70·0	81·6	58·4	72·3	65·1	96	50	0·55	1·28	0·00	1·28	....	.....	0·55
Summer	67·5	79·0	56·0	...	....	99	37	2·49	...	0·57	3·71	.....	....	2·49
September	58·9	69·6	48·1	61·0	54·3	89	35	0·64	1·71	0·76	0·26	.....	.....	0·64
October	48·0	57·6	38·4	52·3	45·0	75	26	0.66	1·43	R	1·43	0·3	1·0	0·69
November	35·3	41·0	29·6	38·1	30·6	59	13	0·95	2·33	0·11	1·03	3·0	17·8	1·25
Fall	47·4	56·1	38·7	....	.....	89	13	2·25	...	0·87	2·72	3·3	..	2·58
Year	47·2	56·5	37·8	....	.....	99	−23	7·05	....	3·75	8·58	10·6	.....	8·11
Snowfall in wet or dry year										1·9	18·8			
Total precipitation in wet or dry year										3·94	10·46			

OKANAGAN VALLEY.

Penticton { Lat. N. 49° 29'. Long. W. 119° 35. Height above sea level, 1,150 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From April 1907 to December 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1910	1909			
December	31·9	34·8	28·9	35·1	26·4	48	10	0·27	0·61	0·60	0·24	4·8	8·3	0·75
January	26·4	33·6	19·2	31·7	17·9	50	−10	0·15	0·44	0·41	0·06	6·5	9·6	0·80
February	29·6	36·5	22·7	35·0	23·9	54	− 8	0·54	2·75	0·20	2·75	3·2	4·8	0·86
Winter	29·3	35·0	23·6	.....	.....	54	−10	0·96	....	1·24	3·05	14·5	....	2·41
March	37·9	48·5	27·4	43·3	33·3	67	7	0·22	0·38	0·12	0·38	0·8	2·5	0·30
April	46·5	59·9	33·0	49·3	42·0	87	19	0·38	1·15	0·45	0·05	.....	.....	0·38
May	55·1	68·4	41·8	57·0	53·9	87	27	1·46	2·21	1·66	1·30	.....	.....	1·46
Spring	46·5	58·9	34·1	.....	.....	87	7	2·06	.....	2·23	1·73	0·8	.....	2·14
June	61·9	75·3	48·5	63·8	59·9	92	34	1·62	3·82	1·33	1·12	.....	...	1·62
July	66·2	80·6	51·9	68·5	64·5	96	38	0·86	2·37	0·49	2·37	..	.....	0·86
August	63·7	77·3	50·2	66·0	61·6	97	32	1·29	3·04	0·94	0·39	.....	.....	1·29
Summer	63·9	77·7	50·2	.....	.....	97	32	3·77	.....	2·76	3·88	.....	....	3·77
September	56·8	69·3	44·4	58·6	53·7	90	29	0·96	1·58	0·52	1·58	.....	...	0·96
October	47·4	57·9	37·0	52·2	44·7	77	20	0·75	1·48	0·62	0·83	.....	..	0·75
November	38·9	46·2	31·6	41·8	33·7	69	1	0·57	1·04	0·26	0·68	1·4	5·0	0·71
Fall	47·7	57·8	37·7	....	.....	90	1	2·28	....	1·10	3·09	1·1	....	2·42
Year	46·9	57·3	36·4	.....	.....	97	−10	9·07	.....	7·63	11·75	16·7	.....	10·74
Snowfall in wet or dry year										11·5	15·9			
Total precipitation										8·78	13·31			

SIMILKAMEEN VALLEY.

Princeton { Lat. N. 49° 29'.
Long. W. 120° 29'.
Height above sea level, 1,650 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1891 to 1898; 1901 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1894.	1903.			
December	22·3	30·2	14·3	27·0	15·6	50	20	0·19	1·70	0·00	0·28	11·5	32·2	1·34
January	15·6	25·1	6·2	21·1	−0·6	49	19	0·25	1·22	0·20	0·06	11·1	23·0	1·36
February	23·0	35·3	10·7	31·8	13·8	65	−32	0·16	0·54	0·00	0·10	7·7	31·2	0·93
Winter	20·3	30·2	10·4	.....	.....	65	−49	0·60	.....	0·20	0·44	30·3	....	3·63
March	32·4	45·7	19·1	39·8	22·6	74	−20	0·20	0·84	0·00	0·16	4·0	18·3	0·60
April	44·0	59·1	28·8	47·6	40·3	87	14	0·51	1·82	1·00	0·23	0·2	1·1	0·53
May	51·9	67·0	36·7	55·5	48·6	95	22	1·33	3·27	1·64	0·80	0·1	2·0	1·34
Spring	42·8	57·3	28·3	.....	...	95	−20	2·04	.....	2·64	1·19	4·3	...	2·47
June	56·7	72·4	41·0	62·0	53·6	98	29	1·09	2·36	1·00	1·74	.. ..	.....	1·09
July	62·8	80·2	45·5	69·4	60·3	100	32	1·25	4·55	0·00	2·68	....	.....	1·25
August	62·2	79·7	44·7	68·0	58·2	101	24	0·90	2·08	0·04	2·05	.....	.....	0·90
Summer	60·5	77·4	43·7	.....	.....	101	24	3·24	.....	1·04	6·47	.....	.. .	3·24
September	53·1	68·4	37·8	64·2	50·8	92	21	1·05	2·59	0·64	2·59	.....	.....	1·05
October	43·4	57·2	29·6	53·5	37·5	90	10	0·81	1·90	0·77	0·70	0·2	3·0	0·83
November	31·0	39·5	22·5	37·0	22·8	78	−18	0·97	2·70	0·25	0·53	9·0	38·7	1·87
Fall	42·5	55·0	30·0	.....	...	78	−18	2·83	....	1·66	3·82	9·2	.....	3·75
Year	41·5	55·0	28·1	.....	.. ..	101	−49	8·71	.....	5·54	11·92	43·8	.... .	13·09
Snowfall in wet or dry year										36·0	47·5			
Total precipitation in wet or dry year										9·14	16·67			

OKANAGAN.

Vernon (Coldstream Ranch) { Lat. N. 50° 14′ / Long. W. 119° 15′ / Height above sea level, 1575 feet.

MONTHLY, SEASONAL AND ANNUAL, MEANS AND EXTREMES.

From 1895 to 1913.

Month	Temperature							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest amount in one month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest amount in one month.	Total.
										1904	1903			
December	27·8	34·0	21·6	32·5	21·3	65	− 6	0·28	2·25	0·00	0·00	9·9	25·5	1·27
January	20 3	26·9	13·6	31·9	5·3	56	−30	0·06	0 48	0·00	0·00	11·0	24·5	1·16
February	25 9	33·8	18·0	44·5	15·4	70	−30	0.14	0 60	0 00	0 00	9·8	28·0	1·12
Winter	24·7	31 6	17·7			70	−30	0·48		0·00	0·00	30 7		3 55
March	35·3	44·7	25·8	43·4	27·4	64	− 8	0 30	0·70	0 60	0.50	4·2	20·0	0 72
April	46·5	58·4	34 6	51·8	38 2	85	18	0·45	1 10	0·11	0·20	0 7	5·9	0·52
May	54·4	67·4	41·4	57·6	51·5	91	24	1·23	2 33	0.46	0·56			1 23
Spring	45·4	56·8	33·9			91	− 8	1·98		1·17	1·26	4 9		2 47
June	60 6	74·3	46·8	65·8	54·0	97	30	1·80	4 17	1·43	2 77			1·80
July	66·3	81·9	50·6	74·6	62·6	104	36	1·36	3·96	0·42	3·96			1·36
August	65 1	80·6	49·6	72 4	60 6	98	29	1 03	3·52	0·27	2·07			1·03
Summer	64·0	78·9	49 0			104	29	4·19		2·12	8·80			4·19
September	55·0	67·8	42·3	61·3	51·1	92	25	1·38	3 27	0 02	2·68			1 38
October	45·3	55·7	34·8	48·7	40·3	76	15	0·79	1·88	0 85	0 55	7.8	1·0	0 79
November	34·0	40·9	27·1	40·3	20·1	65	17	0·71	2 02	0·14	0 67		22 0	1 49
Fall	44·8	54 8	34·7			92	−17	2 88		1 01	3·30	7 8		3 66
Year	44 7	55·5	33·9			104	−30	9·53		4 30	13·36	43·4		13·87
Snowfall in wet or dry year										12·0	46·0			
Total precipitation										8·50	17·96			

KETTLE RIVER.

Midway. { Lat. N. 49° 0'
Long. W. 118° 46'.
Height above sea level, 1,800 feet.

MONTHLY SEASONAL AND ANNUAL MEANS AND EXTREMES.

From August, 1895 to April, 1903, (also Jan.-Feb., 1901 and Nov.-Dec., 1909.)

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One month.	Total.
										1902.	1899.			
December	22·7	30·2	15·2	32·6	9·0*	50	−23	0·22	1·15	0·00	0·00	10·0	18·3	1·22
January	20·6	29·3	11·9	26·6	14·8	49	42	0·09	0·52	0·27	R	7·6	23·8	0·85
February	23·0	33·6	12·5	31·8	17·6	54	−39	0·11	0·83	0·83	0·00	4·9	11·2	0·60
Winter	22·1	31·0	13·2	.....	.....	54	42	0·42	.....	1·10	R	22·5	.....	2·67
March	33·8	46·2	21·3	41·2	24·9	69	−13	0·62	2·45	0·62	0·00	1·8	4·8	0·80
April	44·6	59·5	29·8	49·2	41·6	84	15	0·98	2·10	0·55	0·54	.....	.....	0·98
May	53·4	69·2	37·6	58·5	48·7	95	22	2·24	3·77	1·82	1·65	.....	.....	2·24
Spring	43·9	58·3	29·6	.....	.....	95	−13	3·84	.....	2·99	2·19	1·8	.....	4·02
June	59·5	76·0	42·9	61·7	56·0	98	29	1·21	1·95	0·63	1·51	.....	.....	1·21
July	64·7	84·5	45·0	69·4	61·8	100	34	0·84	1·83	1·19	1·34	.....	.....	0·84
August	64·0	84·4	43·7	68·9	59·3	104	29	0·93	3·34	0·00	3·34	.....	.....	0·93
Summer	62·7	81·6	43·9	.....	.....	104	29	2·98	.....	1·82	6·19	.....	.....	2·98
September	54·1	71·2	37·0	57·8	48·8	92	21	1·06	1·52	0·66	1·41	.....	.....	1·06
October	43·9	57·4	30·4	52·4	42·0	81	13	0·68	1·82	0·00	1·07	.....	.....	0·68
November	32·6	42·1	23·1	40·9	23·9	64	−31	0·64	2·20	0·16	2·20	5·4	12·5	1·18
Fall	43·5	56·9	30·2	.....	.....	92	−31	2·38	.....	0·82	4·68	5·4	.....	2·92
Year	43·1	56·9	29·2	.....	.....	104	−42	9·62	.....	6·73	13·06	29·7	.....	12·59
Snowfall in wet or dry year										30·0	51·9			
Total precipitation in wet or dry year										9·73	18·25			

* Unlikely to be correct Dec. 1898.

SECTION V.—KOOTENAY AND ARROW LAKES.

Cranbrook. { Lat. N.—49°30′. Long. W—115°50′. Height above sea-level, 3,014 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1901 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1913	1902			
December	20·2	28·6	11·8	23·7	12·9	46	−27	0·21	1·23	0·00	0·00	13·6	40·5	1·57
January	17·2	26·3	8·1	22·8	13·7	48	−33	0·41	2·37	0·00	2·37	22·7	66·0	2·68
February	19·0	30·3	7·7	29·8	12·8	52	−35	0·16	1·15	0·00	0·00	13·2	31·7	1·48
Winter	18·8	28·4	9·2	.....	.....	52	−35	0·78	.....	0·00	2·37	49·5	.....	5·73
March	31·1	42·8	19·4	40·4	24·7	63	21	0·59	1·07	0·00	1·07	5·2	21·0	1·11
April	42·2	56·3	28·2	46·3	38·5	87	14	0·96	3·87	0·18	3·87	1·8	5·6	1·14
May	50·7	65·3	36·1	52·9	46·8	88	18	1·47	4·52	0·95	4·52	.....	.....	1·47
Spring	41·3	54·8	27·9	.....	.....	88	−21	3·02	.....	1·43	9·46	7·0	.....	3·72
June	56·9	73·7	40·2	62·9	51·4	96	25	1·71	2·35	0·86	1·85	.....	.....	1·71
July	60·4	77·3	43·4	62·9	56·6	94	31	1·40	3·65	1·26	1·18	.....	.....	1·40
August	60·5	78·8	42·2	66·5	55·9	94	23	0·32	0·78	2·24	0·78	.....	.....	0·32
Summer	59·3	76·6	41·9	.....	.....	96	23	3·43	.....	4·36	3·81	.....	.....	3·43
September	51·2	67·0	35·4	54·5	47·0	87	19	1·39	2·10	0·81	1·35	.....	.....	1·39
October	42·0	55·7	28·4	48·6	37·5	85	9	0·70	1·54	0·44	0·39	S	S	0·70
November	29·4	36·5	22·2	34·6	23·0	65	−23	1·10	2·74	0·93	0·00	5·9	14·0	1·69
Fall	40·9	53·1	28·7	.....	.....	87	−23	3·19	.....	2·18	1·74	5·9	.....	3·78
Year	40·1	53·2	26·9	.....	.....	96	−35	10·12	.....	7·97	17·38	62·4	.....	16·66
Snowfall in wet or dry year										63·8	60·0			
Total precipitation in dry year										14·35	23·28			

KOOTENAY AND ARROW LAKES.

Tobacco Plain (near Elko) { Lat. N. 49° 1'. Long. W. 115° 3'. Height above sea level, 2,684 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1896 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month	Total
										1904	1912			
December	28·5	35·0	21·9	35·6	19·5	57	−15	0·27	0·65	0·40	0·31	9·8	19·5	1·25
January	22·1	28·6	15·7	31·9	9·4	56	−32	0·46	0·95	0·31	0·43	11·4	25·0	1·60
February	25·7	33·3	18·0	35·6	13·3	59	−37	0·41	1·10	0·02	0·43	8·7	25·5	1·28
Winter	25·4	32·3	18·5	.....	.....	59	37	1·14	...	0·73	1·20	29·9	...	4·13
March	34·4	43·7	25·1	42·3	25·2	66	11	0·53	1·64	1·39	0·06	5·9	13·3	1·12
April	45·1	57·2	33·1	51·3	41·4	86	15	0·86	1·29	1·29	1·24	0·2	5·9	0·88
May	53·4	65·7	41·0	61·4	48·4	93	20	2·33	5·56	0·72	1·20	·8	0·7	2·33
Spring	44·3	55·5	33·1	.....	.....	93	−11	3·72	.....	3·40	2·50	6·1	.....	4·33
June	60·0	73·8	46·2	64·7	50·9	103	30	2·50	4·10	0·82	2·64	.....	..	2·50
July	65·1	80·5	49·8	72·3	59·8	100	34	1·84	3·85	0·99	3·85	.....	.....	1·84
August	63·3	79·1	47·5	69·6	54·0	99	26	1·34	4·10	0·91	2·56	.....	.....	1·34
Summer	62·8	77·8	47·8	.....	.. .	103	26	5·68	.....	2·72	9·05	.....	.....	5·68
September	50·2	59·8	40·6	59·7	49·6	90	23	1·34	2·98	0·09	2·14	.....	.....	1·34
October	43·0	52·1	33·9	49·3	39·5	80	12	0·97	2·39	0·26	1·70	0·2	8·6	0·99
November	35·8	44·8	26·8	41·8	21·7	67	−29	1·25	2·88	1·25	2·25	7·2	22·0	1·97
Fall	43·0	52·2	33·8	.....	.....	90	−29	3·56	.....	1·60	6·09	7·4	.....	4·30
Year	43·9	54·4	33·3	. . ..	.....	103	−37	14·10	.....	8·45	18·84	43·4	....	18·44
Snowfall in wet or dry year										48·0	52·5			
Total precipitation in wet or dry year										13·25	24·09			

KOOTENAY AND ARROW LAKES.

Fort Steele { Lat. N.—49° 40'. Long. W.—115° 42'. Height above sea-level, 2433 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1893 to 1897.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Mean.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1896.	1894.			
December	25·0	34·7	15·2	29·9	19·3	52	− 20	0·59	0·99	0·83	0·26	7·2	11·0	1·31
January	16·7	25·4	8·1	21·4	12·4	50	− 29	0·52	0·95	0·76	0·91	9·7	14·0	1·49
February	21·7	33·0	10·3	30·7	12·9	53	− 32	0·04	0·21	0·21	0·00	5·4	15·5	0·58
Winter	21·1	31·0	11·2	.....	...	53	− 32	1·15	.....	1·80	1·17	22·3	.....	3·38
March	32·2	43·4	21·1	34·0	23·0	61	− 23	0·56	0·70	0·67	0·62	5·0	7·2	1·06
April	42·8	54·6	30·9	49·0	40·8	90	18	0·84	1·40	0·83	1·02	2·1	4·5	1·05
May	52·0	66·0	38·0	53·7	50·1	90	21	1·64	2·44	0·89	2·24	...	..	1·64
Spring	42·4	54·7	30·0	.....	.....	90	− 23	3·04	.....	2·39	3·88	7·1	.....	3·75
June	58·2	75·1	41·3	59·4	54·3	96	29	2·06	4·73	1·09	2·11	.....	...	2·06
July	65·0	83·8	46·2	67·3	64·8	100	33	1·02	1·54	0·83	0·30	....	...	1·02
August	62·7	83·3	42·0	64·7	62·9	97	27	1·10	2·20	2·20	1·56	....	.....	1·10
Summer	61·9	80·7	43·2	...	....	100	27	4·18	..	4·12	3·97	.....	...	4·18
September	51·9	66·9	36·9	56·7	50·9	92	23	1·92	3·07	0·72	1·90	..	.....	1·92
October	42·7	56·0	29·4	43·2	42·1	73	12	0·62	0·98	0·19	0·98	0·4	1·5	0·66
November	27·7	36·5	18·8	35·3	16·7	60	− 36	0·95	1·84	0·96	0·80	12·2	22·6	2·17
Fall	40·8	53·1	28·4	....	.....	92	− 36	3·49	.. ..	1·87	3·68	12·6	.	4·75
Year	41·6	54·9	28·2	...	..	100	− 36	11·86	...	10·18	12·70	42·0	.. .	16·06
Snow (wet or dry year)										4·00	35·5			
Total precipitation (wet or dry year)										14·18	16·25			

KOOTENAYS AND ARROW LAKES

Nelson { Lat. N. 49° 29′
Long. W. 117° 21′
Height above sea level, 1,760 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From September, 1898 to June, 1901: January, 1904, to December, 1913

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1910	1905			
December	30·5	34·6	26·4	36·4	24·0	49	3	0·78	4·59	0·88	0·60	17·6	31·0	2·54
January	24·8	29·8	19·8	34·8	16·1	49	−17	0·80	2·74	0·60	0·63	25·5	46·0	3·35
February	28·5	35·3	21·7	33·3	23·2	54	− 7	0·55	1·53	0·00	0·78	17·6	69·3	2·31
Winter	27·9	33·2	22·6	..	.....	54	−17	2·13	....	1·48	2·01	60·7	....	8·20
March	36·7	45·2	28·1	41·7	32·4	65	4	0·89	1·88	1·18	1·88	7·5	45·0	1·61
April	46·4	57·8	35·1	50·5	43·3	79	9	1·18	2·22	0·62	1·16	1·1	4·0	1·29
May	53·7	66·0	41·4	57·3	56·8	86	29	2·17	4·06	1·61	4·00	S.	0·5	2·17
Spring	45·6	56·3	34·9	....	.....	86	4	4·24	.....	3·41	7·04	8·6	.....	5·10
June	60·6	73·6	47·6	64·6	58·6	100	34	2·79	4·55	2·22	4·55	.....	.....	2·79
July	65·9	80·3	51·4	71·2	62·0	94	40	2·00	5·60	0·10	1·92	.....	.....	2·00
August	62·8	75·9	49·8	65·5	59·3	94	34	1·94	7·51	0·26	0·63	.....	.....	1·94
Summer	63·1	76·6	49·6	.....	....	100	34	6·73	.....	2·58	7·10	....	....	6·73
September	56·1	68·2	43·9	58·7	52·9	86	29	1·79	3·33	1·55	2·27	..	..	1·79
October	45·0	54·7	35·3	48·7	41·7	75	20	2·27	4·11	1·87	3·59	0·3	3·7	2·30
November	36·5	42·3	30·8	41·1	30·6	56	7	2·57	5·95	1·46	1·55	9·4	27·5	3·51
Fall	45·9	55·1	36·7	..	.....	86	7	6·63	.....	4·88	7·41	9·7	....	7·60
Year	45·6	55·3	35·9	.....	.....	100	−17	19·73	.....	12·35	23·56	79·0	.....	27·63
Snowfall in wet or dry year										31·0	54·5			
Total precipitation										15·45	29·01			

KOOTENAY AND ARROW LAKES.

Rossland { Lat. N. 49° 5'.
Long. W. 117° 48'.
Height above sea-level, 3,400 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1900 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1913	1907			
December	25·2	28·2	22·1	32·0	19·6	42	2	0·31	2·22	0·00	0·00	31·7	43·9	3·48
January	21·2	24·7	17·8	28·6	13·7	41	−17	0·44	1·10	0·00	0·00	31·8	40·9	3·62
February	27·2	30·6	23·9	31·0	19·9	49	−11	0·41	1·10	0·00	0·67	18·2	41·7	2·23
Winter	24·5	27·8	21·3			49	−17	1·16		0·00	0·67	81·7		9·33
March	33·2	40·3	26·1	39·2	29·7	64	− 2	0·82	2·32	0·00	0·17	13·5	25·9	2·17
April	41·6	52·4	30·9	48·4	38·9	77	16	1·12	2·84	0·31	0·59	3·9	15·8	1·51
May	50·3	59·5	41·0	54·6	48·1	81	29	3·45	5·64	3·32	3·58	0·1	1·0	3·46
Spring	41·7	50·7	32·7			81	− 2	5·39		3·63	4·34	17·5		7·14
June	56·9	67·0	46·7	61·7	53·8	90	36	2·39	4·15	4·15	2·87			2·39
July	63·2	74·8	51·7	68·4	59·7	91	38	1·10	3·35	1·24	0·88			1·10
August	59·9	70·7	49·1	62·6	55·7	88	34	1·58	5·89	0·71	5·89	S	S	1·58
Summer	60·0	70·8	49·2			91	34	5·07		6·10	9·64			5·07
September	53·0	62·3	43·7	55·1	50·2	81	26	2·01	4·28	1·19	4·28	S	S	2·01
October	42·1	48·8	35·4	47·4	37·4	65	18	2·14	3·45	1·06	1·37	6·2	24·6	2·76
November	32·3	36·3	28·4	37·0	27·4	58	2	1·28	2·95	0·24	1·54	23·0	37·4	3·58
Fall	42·4	49·1	35·8			81	2	5·46		2·49	7·19	29·2		8·38
Year	42·2	49·6	34·8			91	−17	17·08		12·22	21·81	128·4		29·62
Snowfall in wet or dry year										125·3	145·3			
Total precipitation in wet or dry year										24·75	36·37			

Section VI—Illecillewaet—Upper Columbia Valley.

Donald { Lat. N. 51° 28'. Long. W. 117° 11'. Height above sea level, 2,090 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Temperature from 1892 to 1899; Precipitation parts of 5 years.

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1898	1899			
December	13·0	20·5	5·6	17·6	9·7	41	−38	0·30	0·81	0·00	0·00	37·1	55·5	4·01
January	10·6	19·4	1·9	15·0	9·6	42	−45	0·23	0·68	0·00	0·00	31·9	77·0	3·42
February	17·2	27·8	6·6	22·5	13·2	47	−39	0·55	1·55	0·09	0·00	19·0	51·6	2·45
Winter	13·6	22·6	4·7	.....	.....	47	−45	1·08	.....	0·09	0·00	88·0	.....	9·88
March	28·6	41·3	15·9	35·8	22·4	67	−25	0·68	1·60	0·00	0·00	6·4	13·7	1·32
April	39·7	52·1	27·2	42·9	37·5	74	9	0·61	1·24	0·07	0·00	3·3	11·5	0·97
May	48·7	63·1	34·4	50·8	16·7	87	19	1·27	2·26	0·59	2·26	1·2	7·5	1·39
Spring	39·0	52·2	25·8	...	...	87	−25	2·59	...	0·66	2·26	10·9	...	3·68
June	54·9	70·1	39·8	56·5	51·9	97	28	1·40	1·88	1·88	1·25	....	.....	1·40
July	61·0	78·0	44·1	62·7	58·4	94	32	0·81	1·66	1·15	1·66	...	.....	0·81
August	60·5	78·3	42·8	71·6	56·9	97	28	1·62	4·38	1·08	4·38	.....	...	1·62
Summer	58·8	75·5	42·2	.....	.....	97	28	3·83	.....	4·11	7·29	...	.....	3·83
September	49·9	64·4	35·5	54·4	44·7	86	20	2·80	6·57	1·20	1·06	...	.....	2·80
October	39·8	50·6	29·0	41·3	36·9	74	14	0·64	0·99	0·59	0·99	1·8	9·4	0·82
November	25·5	31·9	19·0	37·2	14·0	50	−21	1·14	2·40	0·46	2·40	25·4	46·5	3·68
Fall	38·4	49·0	27·8	.....	.....	86	−21	1·58	....	2·25	4·45	27·2	....	7·30
Year	37·5	49·8	25·1	...	.....	97	−45	12·08	.....	7·11	14·00	126·1	....	24·69
Snowfall in wet or dry year										122·1	96·0			
Total precipitation										19·32	23·60			

ILLECILLEWAET—UPPER COLUMBIA.

Glacier { Lat. N. 51° 14′.
Long. W. 117° 29′.
Height above sea-level, 4072 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES,

From 1891 to 1912.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		Total.
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Average Precipitation.
										1896	1910			
December	18·5	23·7	13·2	23·1	13·2	43	−13	0·01	0·20	0·20	0·00	80·6	136·5	8·07
January	14·8	19·9	9·7	20·0	3·0	39	−32	0·10	1·40	0·00	0·00	75·4	133·2	7·64
February	18·0	24·1	11·9	27·4	9·4	43	−21	0·00	0·00	0·00	0·00	62·9	98·0	6·29
Winter	17·1	22·6	11·6	.....	....	43	32	0·11	....	0·20	0·00	218·9	.....	22·00
March	25·4	33·1	17·7	31·6	16·5	51	−13	0·07	0·98	0·00	0·00	53·8	105·5	5·45
April	35·5	43·4	27·6	40·9	30·2	64	3	0·21	1·75	0·00	1·75	24·2	53·0	2·63
May	44·8	54·3	35·2	52·7	40·4	75	16	0·94	3·03	0·27	1·69	6·6	26·0	1·60
Spring	35·2	43·6	26·8	....	....	75	−13	1·22	.....	0·27	3·41	84·6	...	9·68
June	51·2	63·4	39·0	56·6	47·0	89	23	2·99	4·75	0·88	3·65	....	.....	2·99
July	56·2	69·5	42·8	60·5	51·2	89	33	2·34	4·32	0·16	1·03	..	.. ..	2·34
August	55·0	67·1	42·8	59·8	50·9	83	30	2·58	8·64	0·72	2·58	0·2	2·5	2·60
Summer	54·1	66·7	41·5	...	.. ...	89	23	7·91	....	1·76	7·26	0·2	....	7·93
September	45·9	54·7	37·1	49·1	44·0	74	25	4·04	6·48	2·15	4·08	1·0	7·0	4·14
October	36·8	43·3	30·1	41·0	29·9	75	19	2·31	7·31	0·00	7·31	16·1	32·0	3·92
November	25·7	31·3	20·0	31·1	16·7	48	−17	0·79	7·64	0·25	0·22	83·1	120·5	9·10
Fall	36·1	43·1	29·2	.....	.....	75	19	7·14	.....	2·40	11·61	100·2	....	17·16
Year	35·7	44·0	27·3	...	....	89	32	16·38	....	4·63	22·31	403·9	.	56·77
Snowfall										514·2	471·0			
Total										56·05	69·41			

SECTION I.—ILLECILLEWAET—UPPER COLUMBIA.

Golden { Lat. N. 51° 16′.
Long. W. 116° 55′
Height above sea-level, 2,570 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1902 to 1904; 1908 to 1911.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1914	1910			
December	18·9	25·9	11·8	23·9	8·5	45	−33	0·16	1·00	0·00	0·00	13·7	23·0	1·53
January	10·3	19·8	0·8	17·6	8·4	47	−51	0·06	0·25	0·00	0·00	24·7	46·0	2·53
February	16·4	28·1	4·7	26·0	6·9	50	−39	0·02	0·09	0·00	0·00	11·4	30·8	1·16
Winter	15·2	24·6	5·8	....	.....	50	−51	0·24	...	0·00	0·00	49·8	....	5·22
March	29·4	41·5	17·3	39·0	22·9	63	−24	0·46	1·40	0·25	1·40	6·5	17·5	1·05
April	42·0	55·1	28·8	47·0	37·0	80	8	0·52	1·70	0·60	1·70	1·6	4·0	0·68
May	50·7	64·4	36·9	53·1	47·9	89	21	0·92	2·53	1·40	0·68	....	.	6·92
Spring	40·7	53·7	27·7	.....	.....	89	−24	1·84	....	1·95	3·78	8·1	..	2·65
June	57·0	70·6	43·3	61·7	48·9	94	29	8·64	2·51	1·09	1·97	.....	.....	1·64
July	61·3	77·1	45·6	67·7	59·6	94	34	1·52	3·73	0·42	0·22	..	.....	1·52
August	58·1	72·4	43·9	60·3	55·6	91	28	1·63	3·92	0·45	1·64	.	.....	1·63
Summer	58·8	73·4	44·3	....	.....	94	28	4·79	.. ...	1·96	3·83	.....	... ..	4·79
September	49·7	62·2	37·3	52·9	43·6	83	20	1·65	3·25	1·73	1·60	...	... ..	1·65
October	40·4	51·0	29·8	44·3	35·9	73	7	1·34	3·16	1·35	3·16	1·3	7·0	1·47
November	28·4	35·1	21·6	36·0	16·0	60	−27	0·88	3·12	0·27	0·90	17·9	38·0	2·67
Fall	39·5	49·4	29·6	...	....	83	−27	3·87	.....	3·35	5·66	19·2	.....	5·79
Year	38·6	50·3	26·8	.....	.....	94	−51	10·74	.....	7·26	13·27	77·1	.....	18·45
Snowfall in wet or dry year										72·8	77·2			
Total precipitation in wet or dry year										14·54	20·99			

ILLECILLEWAET—UPPER COLUMBIA.

Revelstoke { Lat. N. 57° 0′. Long. W. 118° 6′. Height above sea level, 1,476 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From May, 1898, to December, 1914.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1901.	1902.			
December	26·9	31·3	22·5	30·8	14·9	48	−10	0·80	3·32	0·37	0·00	37·6	77·5	4·56
January	19·9	25·5	14·3	30·2	4·2	46	−25	1·17	3·84	0·29	Noobs	40·4	75·7	5·21
February	22·7	30·5	14·9	31·1	16·7	50	−19	1·03	2·60	0·00	Noobs	35·1	55·1	4·54
Winter	23·2	29·1	17·2	.....	....	50	−25	3·00	.....	0·66	.....	113·1	.....	14·31
March	32·8	42·2	23·5	38·6	25·9	66	− 6	1·52	4·03	0·16	Noobs	13·1	33·7	2·83
April	42·0	53·1	31·0	47·1	36·5	77	17	1·91	4·30	1·45	1·49	0·5	2·0	1·96
May	51·8	64·8	38·8	55·9	44·8	92	23	2·21	3·65	1·43	3·68	0·1	2·0	2·22
Spring	42·2	53·4	31·1	...	.....	92	− 6	5·64	.....	3·34	.....	13·7	.....	7·01
June	58·7	71·8	45·6	63·9	50·2	95	24	2·97	5·44	3·67	3·41	....	.....	2·97
July	63·7	79·0	48·4	68·6	56·7	100	31	2·50	9·68	1·61	9·68	.....	.....	2·50
August	61·3	75·4	47·2	69·2	57·4	93	21	2·66	7·02	1·53	4·65	.....	.....	2·66
Summer	61·2	75·4	47·1	.....	.....	100	21	8·13	.....	6·81	17·74	.....	.....	8·13
September	52·9	64·6	41·2	56·2	47·4	89	27	3·39	8·14	1·74	3·75	...	.....	3·39
October	43·0	50·9	35·1	46·2	38·6	66	21	3·97	8·47	1·03	8·47	0·1	2·0	3·98
November	34·3	39·1	29·4	38·6	25·7	57	− 4	3·86	6·20	3·58	6·20	16·7	44·5	5·53
Fall	43·4	51·5	35·2	.....	.....	89	− 4	11·22	.....	6·35	18·42	16·8	.....	12·90
Year	42·5	52·3	32·7	.....	.....	100	−25	27·90	.....	17·16	41·33*	143·6	....	42·35

* 9 months.

SECTION VII. UPPER FRASER—BABINE LAKE.

Barkerville { Lat. N. 53° 2′.
Long. W. 121° 35′.
Height above sea level, 4,180 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1888 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1896.	1904.			
December	21·2	27·6	14·8	27·3	11·6	58	29	0·06	0·56	0·00	0·00	33·5	60·1	3·41
January	16·6	23·1	10·1	26·4	3·9	46	−44	0·16	1·00	0·51	0·00	26·3	62·0	2·79
February	18·9	26·8	11·0	27·1	4·6	50	−46	0·10	1·15	0·00	0·03	24·9	52·0	2·59
Winter	18·9	25·8	12·0	.....	...	58	−46	0·32	..	0·51	0·03	84·7	.....	8·79
March	25·8	35·4	16·3	33·6	16·9	62	−26	0·13	0·90	0·00	0·00	18·5	57·5	1·98
April	34·3	44·3	24·2	40·4	28·7	76	8	0·57	2·00	0·00	1·79	13·9	36·2	1·96
May	44·5	56·0	32·9	50·6	38·6	86	6	2·08	4·14	1·58	2·29	2·8	13·2	2·36
Spring	34·9	45·2	24·5	....	..	86	−26	2·78	....	1·58	4·08	35·2	.....	6·30
June	50·1	61·9	38·3	54·9	46·5	86	26	3·36	5·91	1·95	4·75	0·3	4·0	3·39
July	54·5	67·3	41·8	59·7	51·0	88	30	3·13	7·40	0·16	4·52	0·6	0·0	3·13
August	53·7	66·3	41·1	61·5	47·5	93	24	3·23	8·30	1·75	3·72	0·1	2·0	3·24
Summer	52·8	65·2	40·4	.....	.....	93	24	9·72	.....	3·86	12·99	0·4	.....	9·76
September	45·6	56·3	34·9	52·6	39·2	87	17	3·41	7·74	0·99	6·29	1·3	8·0	3·54
October	37·6	45·7	29·4	42·8	31·0	76	0	1·95	5·82	1·07	1·83	9·5	34·2	2·90
November	25·4	32·3	18·1	35·1	5·2	66	−25	0·68	2·98	0·00	2·86	25·7	41·0	3·25
Fall	36·2	44·8	27·5	.....	.....	87	−25	6·04	.. ..	2·06	10·98	36·5	....	9·69
Year	35·7	45·3	26·1	.. ..	.....	93	−46	18·86	.....	8·01	28·08	156·8	.....	34·5
Snowfall in wet or dry year										126·0	214·6			
Total precipitation in wet or dry year										20·61	49·54			

UPPER FRASER-BABINE LAKE.

Chilcotin (Big Creek) { Lat. N. 51° 40'. Long. W. 123° 0'. Height above sea level, 3,100 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1904 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1904	1911			
December	20·8	28·2	13·4	24·3	10 3	52	−28	R.	0·03	0·03	0 00	8·6	22·0	0 86
January	11·7	22·0	1·4	24·8	−4·4	55	−50	0 00	0 00	0·00	0·00	6·4	10·0	0·64
February	17·9	30 0	5·7	24·0	6·5	52	−38	0·01	0 09	0·00	0·00	7 4	18·0	0·75
Winter	16·8	26·7	6·8	..	.. ..	55	−50	0·01	.. ..	0·03	0 00	22·4	.....	2·25
March	27 5	40·4	14·5	34·6	16 9	64	−26	0·01	0·10	0 00	0·00	4·8	10·3	0 49
April	39·7	53·6	25·7	48·4	31·9	87	− 6	0·14	0 77	0·77	0 00	2·6	s 6	0·40
May	46·6	61·5	31·6	49 9	34·1	83	18	1·02	2·64	0·20	0 82	0 6	4 5	1·08
Spring	37·9	51·8	23·9	.....	.....	87	−26	1·17	.....	0·97	0 82	8·0	.. ..	1 97
June	52 0	67 7	36·2	56·3	50·3	89	24	1·64	3·22	0·81	1·80	.....	.....	1 64
July	59·6	75·5	43·6	64·2	55 1	96	29	1 38	2·82	0·43	0·33	.....	.....	1·38
August	58·0	73·6	42·4	69·0	53·3	102	25	2 04	4·10	0·35	1·40	.....	.. ..	2·04
Summer	56·5	72·3	40·7	...	.. ..	102	24	5·06	.....	1·59	6·23	.....	.....	5·06
September	48·6	62·6	34·5	54·1	46·4	90	15	1·24	3·52	0 07	3·52	.....	.....	1·24
October	37·2	50·0	24 3	42·8	32·5	74	− 1	0·44	0·96	0 49	0 00	2·2	5 5	0 66
November	25·1	35·2	15·0	39·9	2·3	65	− 31	0·14	0·38	0 00	0 00	9·7	27 0	1 11
Fall	37·0	49·3	24 6	.....	.....	90	− 31	1·82	.....	0·56	3 52	11 9	.. ..	3 01
Year	37·1	50·0	24·0	.....	.. .	102	50	8·06	.....	3 15	10 57	42 3	.. ..	12 29
Snowfall in wet or dry year										40·1	59·0			
Total precipitation in wet or dry year										7·16	16·47			

UPPER FRASER—BABINE LAKE.

Clinton, B.C. { Lat. N. 51° 7'. Long. W. 121° 38'. Height above sea level—3040 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1881 to 1889 (broken period).

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1882	1889			
December				23·2	19·1	47·5	39·0	0·20	1·38	0·00	0·00	6·3	25·0	0·83
January				14·8	5·1	49·5	−46·5	0·10	0·50	0·00	0·00	9·0	15·3	1·00
February				31·7	18·3	51·5	51·0	0·03	0·09	0·00	0·00	4·0	11·5	0·43
Winter								0·33		0·00	0·00	19·3		2·26
March				37·4	28·0	67·0	17·5	0·01	0·09	0·00	0·00	2·7	9·3	0·28
April				46·1	34·9	81·0	11·5	0·04	0·10	0·10	R	0·2	2·0	0·06
May				51·8	41·6	86·5	17·0	0·79	2·30	0·24	2·30	S	S	0·79
Spring								0·84		0·34	2·30	2·9		1·13
June				58·1	53·8	88·0	25·0	0·70	1·72	1·72	0·09			0·70
July				64·1	58·6	96·0	28·0	0·35	0·70	0·70	0·02			0·35
August				62·5	59·9	92·5	27·0	0·28	0·71	0·71	0·59			0·28
Summer								1·33		3·13	0·70			1·33
September				56·6	49·0	92·0	7·0	0·29	0·98	0·03	0·98			0·29
October				44·4	41·0	79·0	1·5	0·30	1·12	0·06	1·12	1·0	4·0	0·40
November				33·9	28·4	56·0	−23·0	0·25	1·00	0·00	0·00	2·0	17·9	0·45
Fall								0·84		0·09	2·10	3·0		1·14
Year								3·34		3·56	5·10	25·2		5·86
Snowfall in wet or dry year										24·0	20·5			
Total precipitation										5·96	7·15			

UPPER FRASER—BABINE LAKE.

Fort St. James, Stuart's Lake { Lat. N. 54° 28′ / Long. W. 124° 12′ / Height above sea level, 2280 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1894 to 1912.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow-		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1899	1908			
December	16·9	26·4	7·4	24·2	7·4	48	−41	0·30	1·34	0·22	0·00	12·5	21·3	1·55
January	7·2	18·5	−4·0	18·6	−14·9	49	−53	0·24	2·33	2·33	0·00	13·4	37·1	1·58
February	12·5	24·4	0·5	20·9	1·6	50	−55	0·22	0·70	0·18	0·40	9·7	19·3	1·19
Winter	12·2	23·1	1·3	.....	.....	50	−55	0·76	....	2·73	0·40	35.6	.....	4·32
March	21·5	34·1	9·0	32·3	12·7	60	−39	0·27	0·96	R	0·41	5·5	14·9	0·82
April	34·3	47·4	21.1	43·7	30·0	71	−21	0·59	2·19	0·03	1·04	3·0	15·8	0·89
May	43·6	57·2	29·9	54·0	39·3	88	11	0·87	3·28	0·70	3·28	0·2	2·0	0·89
Spring	33·1	46·2	20·0	....	.....	88	−39	1·73	..	0·73	4·73	8·7	.	2·60
June	50·8	65·5	36·1	56·4	44·9	90	21	1·50	3·40	R	2·01	....	.....	1·50
July	54·6	71·1	38·1	60·4	48·7	97	24	1·22	3·04	R	1·61	.....	....	1·22
August	53·3	69·1	37·5	58·2	47·4	90	18	1·39	3·09	R	1·41	....	.....	1·39
Summer	52·9	68·6	37·2	.....	.....	97	18	4·11	....	R	5·03	.....	.....	4·11
September	44·6	58·3	30·9	48·9	39·8	80	11	1·20	2·10	0·95	1·89	0·3	4·2	1·23
October	36·9	48·5	25·3	43·4	29·5	77	−2	1·07	2·21	1·00	0·45	1·3	6·0	1·20
November	23·6	33·5	13·6	36·7	−0·3	61	−36	0·61	1·81	0·15	1·81	12·5	28·0	1·86
Fall	35·0	46·8	23·3	.....	.....	80	−36	2·88	.....	2·10	4·15	14·1	.....	4·29
Year	33·3	46·2	20·4	..	....	97	−55	9·48	...	5·56	14·31	58·4	....	15·32
Snowfall in wet or dry year										50·0	64·3			
Total precipitation										10·56	20·74			

Note: R = amount too small to measure.

UPPER FRASER—BABINE LAKE.

Lillooet ... { Lat. N. 50° 42'.
Long. W. 121° 55'.
Height above sea-level, 840 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1878 to 1883.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year. 1882	Rainfall in Wettest Year. 1879	Average Monthly Fall.	Greatest Amount in One Month.	Total.
December				31·1	18·2			1·28	2·50	1·06	0·60	8·6	17·2	2·14
January				24·8	18·7			0·63	1·40	0·00	1·40	11·1	16·2	1·74
February				28·9	19·9			0·38	0·91	0·45	0·91	7·3	11·5	1·11
Winter								2·29		1·51	2·91	27·0		4·99
March				45·8	29·7			0·80	3·40	0·15	3·40	3·6	8·7	1·16
April				48·6	42·7			0·57	0·88	0·53	0·75	8	0·2	0·57
May				59·3	52·0			1·46	2·47	0·18	2·29	0·0		1·46
Spring								2·83		0·86	6·44	3·6		3·19
June				66·6	58·6			1·32	2·90	0·80	2·31			1·32
July				71·8	65·7			1·10	2·24	0·42	2·24			1·10
August				69·8	62·4			0·84	1·70	1·22	0·30			0·84
Summer								3·26		2·44	4·85			3·26
September				60·3	52·9			1·05	2·11	0·89	1·10			1·05
October				50·7	40·6			0·95	1·54	1·02	0·93	0·1	1·0	0·96
November				36·7	29·3			1·19	3·10	0·63	0·36	4·4	7·5	1·63
Fall								3·19		2·54	2·39	4·5		3·64
Year								11·57		7·35	16·59	35·1		15·08
Snowfall in wet or dry year										16·2	54·8			
Total precipitation										8·97	22·07			

UPPER FRASER—BABINE LAKE.

Quesnelle { Lat. N. 52° 59′
Long. W. —122° 30′
Height above sea-level.—1,700 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1894 to 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1904	1913			
December	24·4	33·4	15·3	38·0	14·2	64	−27	0·17	0·85	0·85	0·42	7·5	27·0	0·92
January	14·2	23·6	4·8	26·9	−9·8	59	−50	0·05	0·50	0·04	0·00	11·7	24·5	1·23
February	21·0	30·3	11·8	28·6	8·3	55	−30	0·13	0·63	0·00	0·63	9·6	30·0	1·09
Winter	19·9	29·1	10·6	...	...	64	−50	0·35	...	0·89	1·05	28·8	...	3·23
March	29·1	43·8	14·4	41·0	15·5	74	−30	0·22	1·46	0·00	0·43	2·5	14·0	0·47
April	40·6	57·7	23·4	47·6	37·1	84	− 4	0·32	0·88	0·10	0·31	0·1	1·0	0·33
May	51·5	67·1	35·9	55·3	46·2	92	12	0·88	1·78	0·56	1·36	.....	....	0·88
Spring	40·4	56·2	24·6	.....	....	92	−30	1·42	...	0·66	2·10	2·6	....	1·68
June	57·9	72·6	43·2	64·1	53·5	96	18	1·65	3·46	1·35	1·55	.....	.....	1·65
July	62·2	77·8	46·5	68·6	58·8	100	35	1·60	3·47	1·35	3·47	...	.....	1·60
August	60·1	75·2	45·0	61·5	56·4	96	29	1·79	3·65	0·07	3·65	...	...	1·79
Summer	60·1	75·2	45·0	.....	....	100	18	5·04	...	2·77	8·67	.....	.....	5·04
September	51·9	65·8	38·1	56·5	44·5	85	22	1·77	3·64	0·53	1·51	.....	....	1·77
October	42·9	53·8	31·9	50·3	37·3	75	3	1·22	2·90	1·50	2·87	0·5	8·0	1·27
November	31·1	41·6	20·6	41·2	4·1	76	−31	0·57	1·93	0·15	0·52	6·6	15·0	1·23
Fall	42·0	53·7	30·2	.....	...	85	−31	3·56	.....	2·18	4·90	7·1	.....	4·27
Year	40·6	53·6	27·6	.....	.....	100	−50	10·37	.....	6·50	16·72	38·5	.....	14·22
Snowfall in wet or dry year										96·0	38·0			
Total precipitation in wet or dry year										16·10	20·52			

UPPER FRASER—BABINE LAKE.

Quesnelle Forks { Lat. N. 52° 45'. Long. W. 121° 55'. Height above sea level, 2,275 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1897 to 1906.

Month.	Temperature.							Precipitation in Inches.						
								Rain				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total
										1904	1903			
December	21·6	31·0	18·2	33·5	15·5	50	16	0·19	0·78	0·00	0·20	17·7	35·7	1·96
January	20·1	27·7	12·6	26·8	16·1	48	-28	0·33	1·55	0·30	0·03	20·7	38·5	2·40
February	21·1	29·9	12·3	30·4	8·0	52	−26	0·17	0·49	0·00	0·10	17·8	45·0	1·95
Winter	21·9	29·5	14·1			52	-28			0·30	0·33			6·31
March	28·1	39·0	17·1	37·6	19·7	59	-26	0·27	0·91	0·10	0·39	9·4	21·5	1·21
April	40·3	52·1	28·5	41·6	23·4	79	5	0·86	1·67	0·72	0·84	1·1	20·6	1·27
May	49·0	62·5	35·6	52·0	45·1	86	15	1·94	3·16	0·87	1·71	0·5	1·6	1·99
Spring	39·1	51·2	27·1			86	−26			1·69	2·94			4·47
June	55·1	68·3	42·0	58·3	52·6	98	28	2·85	3·90	2·10	3·78			2·85
July	59·6	74·0	45·2	65·5	56·1	98	32	1·92	3·54	2·03	2·60			1·92
August	57·9	72·5	43·3	65·4	54·7	95	30	1·85	6·07	0·12	2·76			1·85
Summer	57·5	71·6	43·5			98	28			4·26	9·14			6·62
September	49·3	61·2	37·4	53·6	43·9	86	21	2·37	5·19	0·72	5·19			2·37
October	41·7	50·3	33·0	49·4	35·5	75	4	1·88	3·53	2·46	2·95	1·1	3·5	1·99
November	30·2	37·3	23·1	41·4	15·4	61	-22	0·89	2·47	0·47	0·88	14·3	28·0	2·32
Fall	40·4	49·6	31·2			86	−22			3·65	9·02			6·68
Year	39·7	50·5	29·0			98	−28	15·52		9·90	21·43	85·6		24·08
In wet or dry year snowfall										83·5	76·0			
Total										18·25	29·03			

SECTION VIII—ATLIN LAKE.

Atlin { Lat. N.—59° 35′. Long. W.—133° 38′. Height above sea-level—2,240 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From August 1905 to December 1914.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1912	1909			
December	14·3	19·4	9·2	21·4	7·3	45	−35	0·09	0·28	0·22	0·00	11·0	30·3	1·19
January	−1·6	4·6	−7·8	16·2	18·5	40	−50	0·02	0·15	0·00	0·60	9·4	16·3	0·96
February	6·7	14·2	−0·9	18·1	3·4	43	−43	0·02	0·12	0·02	0·00	8·8	21·5	0·90
Winter	6·5	12·7	0·2	...	....	45	−50	0·13	.....	0·24	0·00	29·2	.....	3·05
March	18·4	27·2	9·6	23·7	10·1	50	−29	0·27	2·12	0·00	2·12	6·3	17·6	0·90
April	30·9	39·4	22·4	33·7	26·1	54	−12	0·05	0·36	0·01	0·36	2·1	11·0	0·26
May	42·2	51·0	33·3	46·2	11·1	72	19	0·33	0·96	0·17	0·49	0·3	1·0	0·36
Spring	30·5	39·2	21·8	...	....	72	−29	0·65	...	0·18	2·97	8·7	..	1·52
June	49·6	60·3	38·8	51·8	47·4	76	25	0·75	1·74	0·26	0·51	..	2·5	0·75
July	52·7	62·8	42·6	72·1	50·0	81	34	1·04	2·11	0·50	1·92		.....	1·01
August	50·9	59·7	42·0	53·8	49·0	77	28	1·32	1·82	1·77	1·82	S.	0·2	1·32
Summer	51·0	60·9	41·1	...	.....	81	25	3·11	.. ..	2·53	4·25	S.	.....	3·11
September	43·9	50·9	36·9	46·2	41·1	68	24	1·03	1·96	0·51	1·56	2·1	9·8	1·21
October	35·6	40·8	30·3	38·8	29·2	55	− 3	0·45	1·19	0·92	0·17	6·1	13·6	1·06
November	22·0	26·6	17·4	27·7	5·6	54	−28	0·33	1·42	0·00	0·00	9·9	20·3	1·32
Fall	33·8	39·4	28·2	.....	.....	68	28	1·81	....	1·43	1·73	18·1	....	3·62
Year	30·5	38·1	22·8	.. ..	.....	81	50	5·70	....	4·38	8·95	56·0	.. ...	11·30
Snowfall in wet or dry year										3·58	40·2			
Total precipitation										7·96	12·97			

SECTION IX—PACIFIC COAST AND ISLAND.

Bella Coola { Lat. N. 52° 40'. Long. W. 126° 54'. Height above sea level, 150 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

Temperature from 1898 to 1911; Precipitation from 1898 to 1911.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1911	1913			
December	30·7	34·4	26·9	35·8	22·3	55	7	4·62	9·75	6·15	6·99	8·6	28·3	5·48
January	24·9	29·6	20·3	32·9	14·7	47	−18	2·22	4·52	2·13	2·83	18·6	38·5	4·08
February	29·0	35·1	23·0	37·7	21·7	52	− 3	1·67	4·11	0·30	2·46	12·0	33·0	2·87
Winter	28·2	33·0	23·4	.....	.	55	−18	8·51	. ...	8·58	12·28	39·2	.....	12·43
March	36·4	45·2	27·5	41·9	31·0	63	1	2·62	8·78	3·45	2·97	6·6	35·8	3·28
April	43·8	54·7	32·9	48·6	40·1	82	15	1·76	3·74	0·82	2·64	1·5	14·2	1·91
May	51·9	63·9	40·0	54·8	49·4	87	28	1·75	4·37	1·26	4·37	.....	.....	1·75
Spring	41·0	54·6	33·5	.....	.....	87	1	6·13	.....	5·53	9·98	8·1	.. ..	6·94
June	56·7	68·1	45·2	63·0	53·0	97	32	1·70	3·31	1·48	3·31	.....	.....	1·70
July	61·6	73·9	49·4	66·7	59·4	99	38	1·71	3·80	0·93	0·71	.....	.....	1·71
August	60·4	72·9	47·8	67·1	55·5	96	30	1·91	3·89	1·59	1·77	.....	.....	1·91
Summer	59·6	71·6	47·5	.....	....	99	30	5·32	...	4·00	5·79	.....	.....	5·32
September	54·3	64·9	43·6	56·1	51·0	89	27	3·90	10·66	2·13	8·11	.....	.....	3·90
October	45·6	53·0	38·1	49·8	41·7	69	22	6·55	12·72	4·71	12·42	0·6	8·5	6·61
November	35·8	40·9	30·7	41·7	30·1	55	7	6·00	10·65	5·29	8·65	7·0	18·2	6·70
Fall	45·2	52·9	37·5	.....	.....	89	7	16·45	....	12·13	29·18	7·6	...	17·21
Year	44·3	53·1	35·5	.....	.....	99	−18	36·41	.. .	30·24	57·23	54.9	.....	41·90
Snowfall in wet or dry year										61·2	55·3			
Total precipitation in wet or dry year										36·36	62·76			

PACIFIC COAST AND ISLANDS.

Massett (Queen Charlotte Islands) { Lat. N. 53° 58′. Long. W. 132° 9′. Height above sea-level, 30 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From June, 1897, to December, 1913.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1902.	1903.			
December	39·4	45·3	33·5	45·3	34·5	60	18	5·13	9·85	2·15	9·51	7·8	26·0	5·91
January	35·9	42·1	29·6	40·4	27·4	60	4	4·24	15·10	2·25	6·05	15·9	53·0	5·83
February	37·2	43·5	31·0	40·8	31·8	55	9	3·44	15·20	5·70	2·70	6·2	17·0	4·06
Winter	37·5	43·6	31·4	.....	.....	60	4	12·81	.....	10·10	18·26	29·9	....	15·80
March	39·4	46·7	32·2	44·9	34·0	64	17	2·66	5·30	2·50	2·15	4·5	29·0	3·11
April	42·6	49·6	35·6	48·2	38·3	69	22	4·67	13·40	1·17	8·50	2·2	9·0	4·89
May	48·6	56·8	40·4	57·3	42·1	76	27	4·65	16·35	1·60	16·35	.....	.....	4·65
Spring	43·5	51·0	36·1	.....	.....	76	17	11·98	.....	5·27	27·00	6·7	.....	12·65
June	53·7	61·9	45·5	59·2	49·4	80	33	2·43	6·40	0·65	6·40	...	...	2·43
July	58·1	65·6	50·6	65·7	50·6	83	39	2·85	6·50	6·50	0·35	....	.....	2·85
August	58·9	66·8	51·0	64·7	55·4	84	38	2·74	8·35	2·80	2·65	.....	.....	2·74
Summer	56·9	64·8	49·0	..	.....	84	33	8·02	.....	9·95	9·40	.....	.....	8·02
September	53·5	61·2	45·9	56·7	50·6	75	35	4·06	10·65	1·17	2·75	.....	.....	4·00
October	46·6	53·9	39·4	49·6	43·8	64	17	5·72	10·15	2·35	10·15	0·1	1·0	5·73
November	40·3	46·6	34·1	43·5	29·7	66	12	5·71	11·86	1·20	16·15	3·4	15·0	6·05
Fall	46·8	53·9	39·8	.....	...	75	12	15·43	...	4·72	23·05	3·5	....	15·78
Year	46·2	53·3	39·1	.. ..	....	84	4	48·24	... .	30·04	77·71	40·1	....	52·25
Snowfall in wet or dry year										59·4	47·5			
Total precipitation										35·98	82·46			

PACIFIC COAST AND ISLANDS.

Naas Harbour { Lat. N. 54° 56'. Long. W. 129° 56'. Height above sea level, 20 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1901 to 1910

Month.	Temperature.							Precipitation in inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1902.	1908.			
December								7·31	13·72	3·56	3·61	22·7	89·0	9·58
January								3·94	12·30	4·75	4·22	45·2	73·0	8·46
February								2·13	8·67	1·10	1·40	18·3	57·0	4·26
Winter								13·68		9·41	9·23	86·2		22·30
March								3·36	6·44	5·01	6·44	15·8	52·0	4·94
April								4·63	10·11	1·34	10·11	4·2	13·0	5·05
May								3·03	5·34	1·98	4·06	S.	S.	3·03
Spring								11·02		8·36	20·61	20·0		13·02
June								2·52	4·69	2·55	1·89			2·52
July								3·03	5·38	2·66	3·06			3·03
August								6·62	11·58	11·58	2·22			6·62
Summer								12·17		16·79	7·17			12·17
September								10·61	24·88	10·07	21·88			10·61
October								12·98	22·27	6·34	18·85	0·1	1·0	12·99
November								8·49	15·84	7·19	7·23	6·2	23·0	9·11
Fall								32·08		23·60	50·96	6·3		32·71
Year								68·95		58·16	87·97	112·5		80·20
Snowfall in wee or dry year										179.0	94·0			
Total precipitation										76·06	97·37			

PACIFIC COAST AND ISLANDS.

Port Simpson { Lat. N.—54° 34′ / Long. W.—130° 36′ / Height above sea-level—26 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From 1886 to 1907.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1900.	1894.			
December	36·9	42·6	31·2	41·6	30·6	62	5	10·11	18·82	11·64	11·06	8·7	34·1	10·98
January	34·0	40·0	28·1	42·0	24·2	64	−9	8·62	16·74	5·12	3·72	9·8	42·6	9·60
February	34·8	41·8	27·7	41·5	23·7	63	−10	6·07	16·65	5·78	6·80	11·8	27·0	7·25
Winter	35·2	41·5	29·0	.....	...	64	−10	24·80	...	22·54	21·58	30·3	.....	27·83
March	37·6	44·8	30·3	44·3	33·1	63	11	5·06	8·16	4·97	1·48	5·3	19·1	5·59
April	41·6	49·9	33·4	46·3	38·6	73	18	4·85	14·31	6·47	14·31	3·9	21·4	5·15
May	48·3	56·5	40·0	51·3	45·9	79	27	5·14	9·84	4·86	8·07	.....	0·6	5·14
Spring	42·5	50·4	34·6	....	.....	79	11	15·05	....	16·30	23·86	8·3	.....	15·88
June	52·8	60·5	45·1	56·3	50·1	88	34	4·26	7·50	4·58	4·43	...	.....	4·26
July	56·0	63·3	48·8	59·6	53·4	88	36	4·42	9·41	2·72	8·92	...	...	4·42
August	56·7	63·8	49·5	60·5	54·0	80	31	6·93	14·11	4·51	9·08	.....	.....	6·93
Summer	55·2	62·5	47·8	.....	....	88	31	15·61	..	18·11	22·13	.	..	15·61
September	52·2	59·1	45·2	55·7	48·9	74	30	9·03	14·63	1·38	9·62	...	.....	9·03
October	47·1	53·5	40·7	49·6	43·9	65	28	12·21	16·99	5·11	16·99	...	.....	12·21
November	39·7	45·6	33·7	47·0	28·2	65	6	11·47	23·90	4·32	23·90	1·6	4·5	11·63
Fall	46·3	52·7	39·9	...	...	74	6	32·71	...	10·81	50·51	1·6	.....	32·87
Year	44·8	51·8	37·8	...	.....	88	−10	88·17	.....	61·46	18·38	40·2	.....	92·19
Snowfall in wet or dry year										20·9	86·7			
Total precipitation in wet or dry year										63·55	27·05			

PACIFIC COAST AND ISLANDS.

River's Inlet | Lat. N. 51° 39'
Long. W. 127° 19'
Height above sea level 120 feet.

MONTHLY, SEASONAL AND ANNUAL MEANS AND EXTREMES.

From January 1895 to December 1906.

Month.	Temperature.							Precipitation in Inches.						
								Rain.				Snow.		
	Mean.	Mean Maximum.	Mean Minimum.	Highest Monthly Mean.	Lowest Monthly Mean.	Extreme Highest.	Extreme Lowest.	Average Monthly Fall.	Greatest Amount in One Month.	Rainfall in Driest Year.	Rainfall in Wettest Year.	Average Monthly Fall.	Greatest Amount in One Month.	Total.
										1897	1906			
December	37·5	41·0	34·0	41·6	33·3	55	19	15·63	20·58	10·89	19·56	8·3	36·5	16·46
January	34·9	38·6	31·1	38·5	30·4	59	11	11·08	17·05	8·60	14 17	11 8	42·8	12·26
February	36·3	41·2	31·3	40·7	30·1	55	13	9.15	16·30	7·78	3 56	14 1	44 6	10 56
Winter	36·2	40·3	32·1	.....	.....	59	11	35·86	.....	27 27	37·29	34·2	.....	39·28
March	38·9	45·6	32·3	44 1	35 3	67	15	5·80	11·13	6·23	5·70	15·3	63 8	7·33
April	44 3	52·1	36·5	46·1	40 3	75	27	8·05	14·48	10 09	7·55	4·3	20 5	8 48
May	49·8	57·8	41·7	52·0	47·9	84	28	4·94	9·73	5 11	1·89	1 0	12·0	5·01
Spring	44·3	51·8	36·8	.....	.....	84	15	18·79	.....	21·43	15·14	20 6	....	20 85
June	58·8	61·8	45 7	56·5	52·0	90	37	4·35	8·77	3·39	5 09	.....	.....	4·35
July	58 2	65·6	50·7	61·8	55·3	91	41	3·41	6·60	5·02	2 19	.....	...	3·41
August	58·4	65·7	51·1	60·9	56·9	86	41	4 80	9 18	5·99	4·85	.....	.....	4·80
Summer	58·5	64·4	49·2	.....	.....	91	37	12·56	.....	14·40	12 13	.....	.....	12·56
September	53·3	59·7	46 8	55·5	49·8	77	35	10·51	23 00	6·37	23 00	.....	.....	10·51
October	48 0	52 9	43·2	52·0	43·9	71	27	12·99	26·85	14·16	26·85	S	0·4	12·99
November	39·6	43·3	35·9	46·6	31·2	65	18	15·67	21·36	7·11	13·54	6 9	27·8	16·36
Fall	47·0	52·0	42 0	.....	.. ..	77	18	39·17	.....	27·46	63·39	6·9	.....	39·86
Year	46·5	52·1	40·0	.....	.....	91	11	106·38	. ..	90·74	127·95	61·7	....	112·55
Snowfall										54·0	66·3			
Total precipitation										96·14	134·58			