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R. THAXTER, Prof.-Emeritus and Hon. Curator
WM. H. WESTON, Jr. . . Assistant Professor
C. W. DODGE, Instructor
A. B. SEYMOUR, . Assistant in the Herbarium



20 Divinity Avenue
Cambridge 38, Mass., U.S.A.

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Dear Professor Collins:

Enclosed find the translation of the Logan Report which I have had ready for some days. Prof. Fernald told me that he expected you up the first of last week, and I was going to give it to you then. I am sorry if the delay has caused inconvenience. I have sketched in the corrections and additions in red, water in blue. Rather doubtful of the west contours of Coleman etc. perhaps Smith and Fernald can help out from their trip up the river.

I expect Zeller about the first of December to stay until Christmas.

Hastily,

Bridge

At the mouth of the Cap Chat River there is a little lagoon which low tide leaves dry and which is separated from the bay by a narrow bar or dike of clay, sand and gravel, and in looking from this across the lagoon, up the valley of the stream, we had a magnificent view of the majestic Notre Dame Mountains, which raise their high peaks to the south and on which we intended to climb, in a line of exploration as far as the Baie des Chaleurs, also turning to the right as far as circumstances permitted thru the direction of stratification.

As the country on the line we proposed to follow, had never been represented on geographic maps nor even examined at all, and as at the same time exact geographic details were indispensable to arrive at correct geological conclusions, and to present them in an intelligible manner, it became necessary that our trip serve as a topographic as well as a stratigraphic exploration. Therefore we measured a base line on the shore (of the St. L.) and determined by means of triangles, using one of the excellent Cary portable sextants divided to 30" to measure our angles, the position of the various wellmarked peaks in the range of hills we had in front of us; and having determined as many as we judged necessary, we ascended the Chatte River in our canoes, noting the description of the place, the quality and attitude of each of the rocks we encountered. For taking the direction of the stream, we used the prismatic compass of Smallcalder, and the micrometer of Rochon to measure the distances. (A detailed description of the instrument and details of its manipulation. They usually measured about 12 miles a day.)

The exactitude which one could attain, using these means carefully, may be seen by the results of our measurements across the country between the St. Lawrence and the Baie des Chaleurs, when represented on a map on a scale of 1 in to 1 mi. We took the points of the compass of the Chatte

River, and having by means of directions verified the position of a top of a mountain 2669 ft. very near its left bank; from the summit of this mountain and from the summit of one of the peaks determined by means of our base line on the bank of the St. Lawrence, and which may be seen from the other, we determined by a trigonometric operation, the situation of a conical peak about 17 mi. in front of us on the edge of a river which empties into the Baie des Chaleurs. We, being directed toward this Mt. thru the forest, we reembarked on this river and took our directions to the Baie. The total distance following the detour of our route was more than 111 mi.; but in a straight line, from our map it is 74 mi. 60 chains. The same line, determined by the latitudes and longitudes of its ends, taken from the correct charts of Capt. Bayfield is 74 mi. 79 chains and that shown by the new map of the deputy surveyor general Bouchette, on the point of being published, its length is 75 mi. 10 chains. The direction of the line coincides so well in the three charts that the difference is scarcely perceptible.

The distance which we measured on the Chatte River before being obliged to abandon our canoes was $32\frac{1}{2}$ mi. in following the detours and 25 mi in taking the general course of the river valley. The distance covered took us thru the chain of the Notre Dame Mts which rise at a distance of 12 mi in a straight line from the shores of the St. Lawrence and occupy a breadth of 6 mi. more. The stream cuts these mountains at their very base, and at the point where we left the river we found that the height of its bed above the level of the ~~xxxxxxx~~ sea was 587, after having ascended two little falls in the gorge of the mountain, one of 10 ft. the other of 60, giving a declivity of 18 ft. per mi for the water and 23 ft per mi. for the valley of the river. The width of this river(the Chatte) at our last station was 50-60 ft. while at its mouth its width is about 150 ft. Its course on descending between these two points except its slight curves is as follows

according to the compass, the variation being $22^{\circ}30'$ west.

	mi.	ch.
N 10 O	1	40
N 11 E	0	56
N 12 E	1	12
N 24 E	0	70
N 7 O	3	03
N 67 E	5	56
N 11 E	4	28
N 8 E	2	25
N 62 E	2	70
N 80 E	1	7
N 18 E	1	35
N 75 O	0	66

Total distance 25.68 mi.

At each turn made by these lines except the last three which run thru a wet terrain, the river receives a brook of more or less importance. Its sources lie on a plateau about 3 or 4 mi south of the Notre Dame Mts. which is a much lower terrain and constitutes the divide between the St. Lawrence River and the Baie des Chaleurs, a space of terrain which extends east and west much beyond the Chatte which comprises only 12 - 14 mi. The waters of these sources are brought to the entrance of a deep ravine or gorge of the mountain by 3 principal streams which meet at this point, two of which follow the same line, but in opposite directions, are in the direction of the stratification and mark the edge of the Notre Dame formation while the third makes a partial section almost at right angles with the others thru the strata which rest on these rocks in a southerly direction.

The whole area which the Chatte drains does not exceed perhaps 300 sq. mi. About half of this area lies south of the large mountains or between them. They send the tribute of their waters principally by two deep longitudinal valleys, directly opposite each other in the direction of the chain, which extends each side of the gorge for about 6 mi. and which discharging there are terminated by two high summits at their extremities, and 13 mi apart in a straight line while several transverse valleys come to their aid in making ravines and fashioning the mt. mass into a considerable number of small mountains or secondary mountain chains (contreforts) less high but important.

We visited the two principal summits. On climbing that toward the east which is exactly opposite the lower part of the valley of the Chatte and seems to terminate it, when one sees it from the St. Lawrence, we climbed the north slope of the chain which presents a face of which the declivity cannot be less than 45° by 3000 ft. and we found that before the horizon showed on the low hills between us and the (St. Lawrence) River (fleuve not riviere) we had reached an elevation of 1753 ft. above its surface. The highest spring of water which we could discover is found at an elevation of 3544 ft. The water of this spring, coming from the strata at upper the base of the peak is abundant and of an excellent potable quality. The summit of the peak itself which is a point or crest of bare rock has 3768 ft. elevation while the flat and broad top of another mountain to which we gave the name Mattaouisse, name which in Micmac means porcupine, because we killed one of these animals, in climbing one of its slopes, and on which we spent the first night of our climb, having arrived there by mistake, is 3365 ft. A deep ravine separates Mt. Mattaouisse from the principal peak and another separates it from another in the form of a dome.

As to the principal summit on the west of the Chatte River to which we gave the name Mt. Bayfield in honor of Capt. Bayfield who has indicated the position on one of his maps, we found that it has an elevation of 3471 feet after having arrived by a very hard and fatiguing climb from the gorge to a "noyau" or massive escarpment of a mountain 2669 ft high which acquired the name of Bonhomme from the existence of a large rock as standing on a step of its slope in the attitude of a man who spied what was passing below and by a route along the chain or crossing the mountain with a triple summit more than 3000 ft, separated from Mt. Bayfield by two ravines and an intermediate mountain of medium elevation.

All these heights given between the two principal summits are the little chains or links of a chain, situated on the north of the longitudinal

valleys which have been mentioned and altho they constitute the ^{very high} toothed ridge, none of them is more than a mile from the northern base of the whole range. The five miles which compose the rest of its breadth present lower summits and one of the higher of these summits which comes out in a remarkable manner on the east side of the gorge and to which we gave the name of Mt. du Sud is found to have 2413 ft elevation. All these mt. summits as well as the crest of the north are escarpements on their north side and generally with a gentler slope on the south side, in the probable direction which in this part of the chain can be considered as E. N. E. and W. S. W. magnetically.

From the highest summit we visited, the ~~principal~~ spectacle, the panorama which unfolded for us was grand and magnificent to the highest degree. In the north half of the circle, the waters of the St. Lawrence, ornate with its ships and fishing vessels, extended to right and to left, as far as our eyes could reach. On its northern shore immediately in from of our position one could distinguish by the unaided eye the lighthouse of the Pointe des Monts at some 50 miles away where the granite hills which rise immediately above it in the interior sink gradually to the horizon as fast as they are more distant when we follow them to the entrance of the gulf, to a point where we think we could discern the island of Anticosti 100 miles away then the haze caused by distance, while at our feet were disposed in parallel lines the hills and valleys between us and the River (fleuve). To the east a confused mass of mountains and ravines belonging to the chain of the Notre Dame mountains filled several degrees of the circle and we suppose that one of the summits where we saw a spot of snow was higher than that where we were. Several peaks were bear and as they retire one behind the other and occupy a smaller angle in the perspective it became difficult to distinguish those of the Notre Dame Mountains from those which belong to other chains. Turning to the south the picture is occupied by a sea of ridges or hills parallel undulating, and we presume that farther away a

plateau or an elevated plain with some remarkable points elevated in cones and domes; and by an "enfouissement" or opening which was probably the valley of some river to the south, we distinguished at the horizon a bluish "lueur" which we thought might be New Brunswick. The prominent points became still more rare in turning toward the west until the horizon was again interrupted well-marked in this direction by the contour of a quite distant part of the chain on which we were.

The highest summits in our view were generally of bare rocks. Those which followed them immediately in the scale were crowned with dwarf "épinettes" or "sapinettes" sturdy and very much branched of which several were not more than 5 ft high but growing so close together that their branches interlaced. It was very difficult to force ones passage. On still lower summits, the sapinette was mixed with bouleau blanc and the height of the trees increased gradually as the elevation diminished. A trait which was noticeable to us in the vegetation, at a certain height on the mountains and which could not but be agreeable to us after having been as it were imprisoned in the forests situated at their foot was the great extent of meadows which showed on every side except the north. Broad spaces to the east, south and west were carpeted by a very rich vegetation and especially by the great diversity of species of ferns in the midst of which rose here and there groups of sapinettes or bouleau blanc or these two species of trees together, which gave almost the appearance of park or lawn to the mountain sides as if art had arranged and distributed all for ornament and presented often combined with the peaks the ravines and a distant horizon, a countryside of grand beauty.



Dodge, Carroll W. 1923. "Dodge, Carroll W. Nov. 18, 1923 [with enclosed report]." *James Franklin Collins materials related to Gaspé Peninsula plant collecting trips*

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