The Exploration of the Source of the Thompson River in British Columbia

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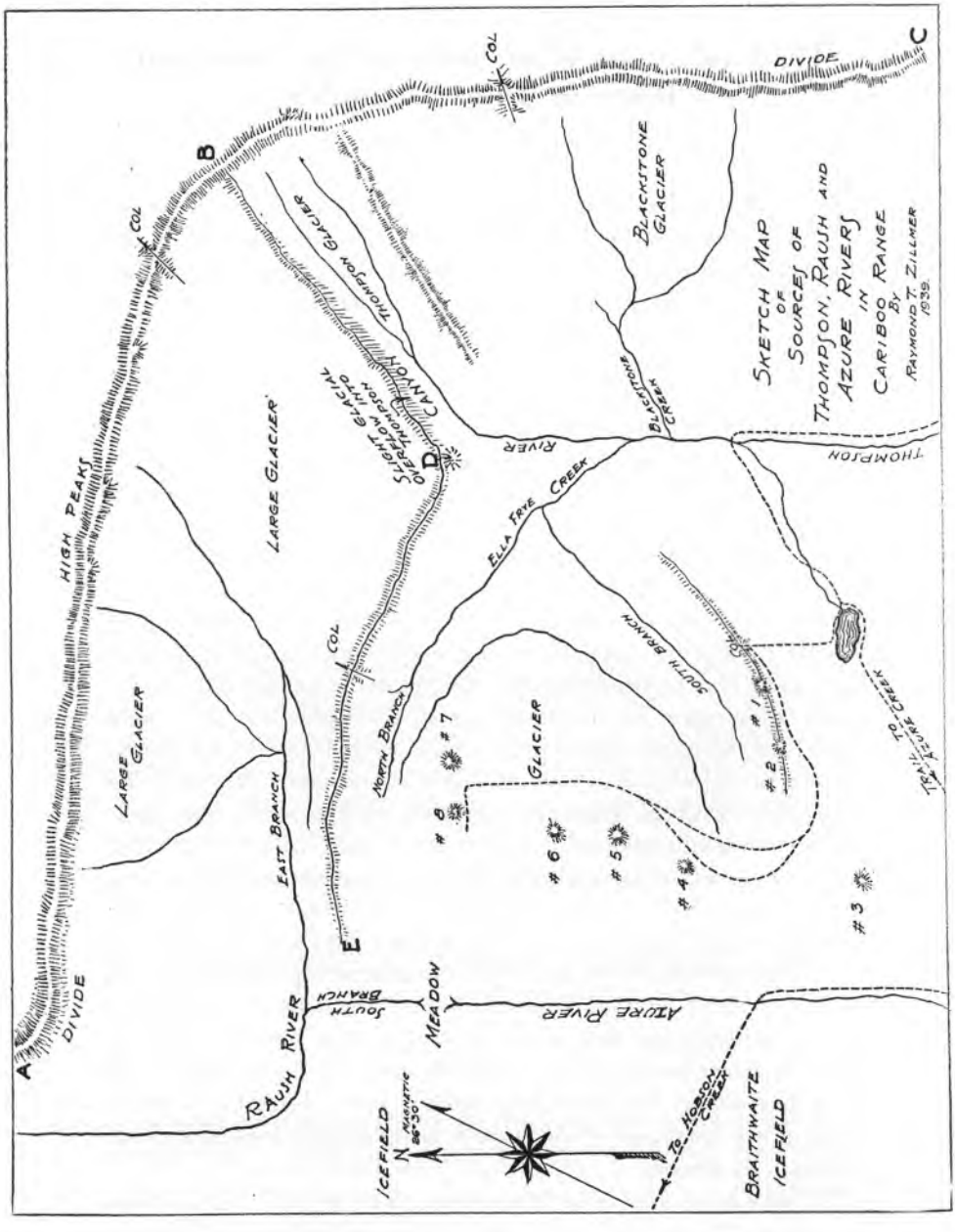
THE Thompson River in British Columbia rises in the southeastern part of the Cariboo Range. The western side of the Cariboo Range is rather well known, as the discovery of gold brought a large migration of people to exploit it. But the eastern and higher portion is quite unexplored even to this day, except for trappers and prospectors who leave no written record of their work.

The Cariboo Range is important in the development of Canada. When the Canadian Pacific Railway considered the matter of its route across the continental divide, it tentatively selected Yellowhead Pass, for it offered the easiest crossing. But that decision was frustrated by the Cariboo Mountains. A practical railroad route led from Yellowhead Pass to the Fraser River and down the Fraser until the Cariboo Range was reached, about 50 miles west of the pass. Here, from an elevation of 2400 ft., at Tête Jaune Cache, the Cariboo Range rises in a very short distance to as high as 11,750 ft., the height of Mt. Sir Wilfred Laurier, the highest peak of the entire Interior Ranges of British Columbia. If a route could not be found across the range, a long detour to the northwest or to the south was necessary—the routes now followed by the Canadian National Railway. So from 1871 to 1874 four well-equipped expeditions sought a route across the Cariboo Mountains. But they found that only high glacial passes were available. So the route across Yellowhead Pass was abandoned in favor of the more southerly route now used by the Canadian Pacific Railway.

The eastern Cariboos, and from here all reference to the Cariboos will be understood as referring to the eastern portion, were thereafter completely ignored until 1916. From then until 1927 mountaineers were responsible for what we may call the second period of exploration. The controversy arising out of these explorations drew me to the range for the purpose of settling the questions raised during this period.

There were four expeditions from 1916 to 1927, all of them from near Tête Jaune Cache, on the east central side of the Cariboos.


SKETCH MAP
OF
SOURCES OF
THOMPSON, RAUSH AND
AZURE RIVERS
CARIBOO RANGE
BY
RAYMOND T. ZILLMER
1939.
A
B
C
D
E
COL
DIVIDE
HIGH PEAK
LARGE GLACIER
LARGE GLACIER
EAST BRANCH
RAUSH RIVER
SOUTH BRANCH
MEADOW
AZURE RIVER
ICEFIELD
MAGNETIC 26°30'
N
TO HOBSON CREEK
BRAITHWAITE ICEFIELD
THOMPSON GLACIER
OVERFLOW FROM THOMPSON GLACIAL INTO CANYON
BLACKSTONE GLACIER
BLACKSTONE CREEK
RIVER
THOMPSON
ELLA FRYE CREEK
NORTH BRANCH
GLACIER
SOUTH BRANCH
TO AZURE CREEK
#1
#2
#3
#4
#5
#6
#7
#8

In 1916, E. W. D. Holway and A. J. Gilmour went up Tête (Sand) Creek, but weather prevented important results. In 1924, A. Carpé, R. T. Chamberlin, and A. L. Withers entered by the same route and climbed several high peaks, among them Sir Wilfred Laurier. In 1925, that indefatigable couple, Mr. and Mrs. W. A. D. Munday, who have contributed so much to the exploration of the Coast Range, entered by way of Tête Creek and climbed several high peaks, among them Mt. Thompson. In 1927, Carpé and Chamberlin entered by Kiwa Creek, lying immediately north of Tête Creek, and again climbed several high peaks. The articles (*Canadian Alpine Journal; Alpine Journal, Appalachia*) describing these expeditions resulted in a controversy as to where the Thompson, the Raush and the Canoe Rivers rose in the range.

It was my purpose to travel up the Thompson Valley to its source, explore its source, determine its relation to the Raush, and cross the range, if possible, going out by way of the Canoe River.

My trip in July, 1939, was my seventh back-pack trip in the mountains of Alberta and British Columbia. On two of these trips I went alone, and on the others I was accompanied by another amateur, this year by Lorin Tiefenthaler who had been with me on the Mackenzie Trail the year before. We planned to carry everything in Trapper Nelson packboards, without reprovisioning or help from anyone. Our food was measured out in exact amounts for each meal of the 13 days. We had 2-lb. down sleeping bags, a very small, light tent, no arms, no camp-axe, no change of clothing except socks and underwear—only that which was absolutely necessary. As we planned to make a plane-table survey and cross the icefields, we were burdened with the additional material for the survey, and a primus stove, a gallon of gasoline, and climbing equipment. It was quite a load!

We planned on going up the Thompson River from the point where it leaves the Canadian National Railway at the flag station, Gosnell. The region has not been surveyed. In fact, the only maps that exist are based on sketches made by prospectors or trappers, the best sketch of the upper Thompson being by Angus Horne of Blue River.

I made careful preparations for this trip, studying plane-table surveying, reading everything I could find on the region, and carry-

ing on a considerable correspondence for two years, but there was not much that I could learn in advance of the country.

Walter Moberly, who in 1873 attempted to find a way across the mountains, said: "I . . . . went to the forks of the Albreda and North Thompson River, and up the valley of the latter. . . . I pursued my way until, at a very high elevation, I was surrounded by snow-capped peaks and glaciers that presented an impenetrable wall of rock, snow and ice." But Moberly said that he was "only a few days in there." It is clear from this remark that Moberly could not have gone very far up the Thompson River, certainly not near its source.

In 1874, E. W. Jarvis ascended the Clearwater River and crossed to the upper Thompson River. The Canadian Pacific report states that "the summit of the divide at the lowest point that could be found on this route was an immense glacier 7000 ft. above sea level." It would seem that Mr. Jarvis could not have been near the source of the Thompson River, for there is an easily found non-glacial, under-timberline pass near the source of the Thompson.

Mr. Angus Horne was very kind, helping us in many ways. Long before we reached the mountains, the Pullman conductor gave us a note which had been given to him by another conductor, who, in turn, had received it from Mr. Horne. In this note Mr. Horne, in characteristic mountain fashion, gave us final advice that "the best way to get out of a crevasse is to stay out." He warned us that we were going too early, for the season was delayed and abnormally wet. And he added: "When you get off at Gosnell siding, you may see a Miss Frye who, strange as it may seem, is a trapper and is familiar with the Thompson trail and will be glad to start you off right." It was after six in the evening when we got off the train at Gosnell and there, near the track, were Miss Ella Frye and Malcolm McMillan. They asked us to her cabin nearby. Ella Frye was the licensed trapper of the upper Thompson and its branches. There was much information that we wanted from her, so we postponed our start until the next morning. No one could have been kinder to us than Miss Frye and Malcolm McMillan. She helped us in every way with her knowledge of the valley, but most of all with the mosquito netting which she insisted on our taking, although she had none thereafter for herself. Mosquitoes were to be the worst I have ever experienced, yet the mosquito

netting was the one thing we forgot. As our gasoline can was leaking, she gave us hers, and offered us a rifle which we declined. On the wall of her cabin hung the hide of a grizzly which she had shot a few miles up the trail we were to take the next morning.

We started on the morning of July 3rd, crossing the Albreda River on a large fallen tree to the N. side of the Thompson which we were to follow for 30.5 miles on a rough and, for a large part, thickly overgrown trail to a point where the trail crossed to the other side of the river. It took us four and a quarter days to get to this crossing. It rained much of the time, so that we were always wet, if not from the rain then from the dripping willows, alders, and wild parsnip which we pushed through, and from the nettle and devils club which we walked through cautiously with hands raised high. We were dry only when we crawled into our sleeping bags at night. We made no serious effort to dry our shoes or clothing because within five minutes after starting the next morning, we would be thoroughly soaked again from head to foot. As I wore glasses, I had difficulty seeing, for my glasses were often dripping wet and covered with débris from the bushes we pushed through. We forded many tributaries of the Thompson, and crossed many mud-holes, and marshes, often covered with water.

We lost a day through an injury to the tendons of my left leg. In the late afternoon of the first day the trail led to an area 150 to 200 yards in diameter where several large and many small trees had fallen, cluttering up the entire area with many broken trunks and branches. I was walking on a fallen tree seven or eight feet above the ground, when, suddenly losing my balance, I was compelled to jump. Carrying my heavy pack, I crashed through the débris and undergrowth a foot or so. Not until the next day did I realize that I had hurt the tendons in my left leg. The next few days I suffered, not so much because of the very painful leg, but because of the mental anguish that perhaps I should or must give up the trip. On the fifth day my leg was improved, and I was able to proceed at a faster gait.

When I got up on the morning of the second day I had trouble opening my eyes, and when Lorin looked at me he said: "No wonder, your eyes are almost closed from the mosquito bites."

On the third day, while resting on the trail, I heard a noise in the bushes ahead and, bending forward, saw a large black

bear, perhaps 12-15 ft. away, walking toward me on the trail. I tried to get up, but I could not do so quickly for my arms were in the pack straps and the camera straps were about my neck. So I grabbed my ice-axe and yelled. Lorin, spying him almost at the same time, yelled too. The bear took one more step toward us, looked at us deliberately, and before taking another step, crashed off the trail into the brush. His footprints on the trail were an inch longer than my number ten climbing shoes.

Early on the fifth day we arrived at the crossing of the Thompson. The weather was clearing for the first time. We had gone from about 2500 ft. to the 3450-ft. level, and the valley now, for the first time, gave us an open view of the mountains ahead. We had gone in a westerly direction until the third day, when we swung to the N. W. and, just before arriving at the crossing, we turned N.

We were uncertain what to do at this point. We could cross the river, continue on the trail which went W. and S. W. to the divide between the Azure, a branch of the Clearwater and the Thompson, and then follow the mountain divide N. between the upper Azure and the upper Thompson until we reached the Raush, which flowed N. Carpé and Munday agreed that the sources of the Raush and Thompson were in a common, low pass. By this time, I had come to the conclusion that this probably was not the fact.

We had two other alternatives. One was to climb the mountain E. of where we then stood, by following a ridge alongside and S. of a creek that came into the Thompson a little N. of us, named Blackstone Creek by Miss Frye. Above timberline we would get to a large icefield which fed this creek and which we called Blackstone Glacier. From this icefield we could reach an ice col to the N. of the icefield. This col would take us out of the Thompson drainage and by going, we thought, about due E., we would reach the Canoe River. We determined against this plan because we might not then be able to settle the question of the Raush source.

The third alternative was to go up the bed of the Thompson as far as possible. This was what we did. We walked the stony bars, and forded the ice-cold stream back and forth until our legs were quite numb. But in less than an hour we were blocked by a canyon. How long was the canyon? Was there another canyon?

We could not tell. The condition of my leg was still too doubtful to do much continuous rock climbing with a heavy pack, so we turned back to take the trail which led to the divide W. of us.

The stream which we had forded with difficulty going up was now much higher, higher even than the level of the water at the ford. And the river at the ford is described in the 1927 Report of the Minister of Mines, referring to crossing it with horses, as "a crossing difficult or impossible at high water." Lorin crossed without much difficulty, but he was six inches taller than I. I had to turn back when I attempted to cross, as my ice-axe did not provide sufficient support. I found a 15-ft. pole and made a second attempt to cross, but the pole was pulled out of my hands, and after a few seconds that seemed hours, I was thrown over on my back, pack and all. The current was so strong, however, that I was very quickly thrown across to the other side of the stream, suffering only a slightly skinned finger, in spite of the many rocks in the river. This experience confirmed my theory that it would be very difficult, if not impossible, to avoid being tossed out by the fast waters, either on one side or the other, of such streams. The movie camera on the outside of my pack was ruined for the trip, but the contents of my pack were dry, and fortunately, we carried a second movie camera.

We decided to camp early at the crossing so as to get much needed rest. The first clear sky and a beautiful sunset seemed to predict the perfect weather which followed just when we needed it most.

The next morning, after caching some supplies, we followed the trail W. and S. W. to the divide between the Azure and the Thompson, and at noon reached the outlet of Summit Lake (5200 ft.) which is practically on the divide. The view of the lake and of the mountains to the S. was the most beautiful on our trip.

As my altimeter contained moisture from pushing through wet bushes, the altitudes hereafter are given with some misgivings.

We went to the middle of the N. shore of the lake. The trees and bushes still formed a dense growth, and the mountain dropped rather quickly into the lake, so we saved considerable time and effort by walking in the water at the edge of the lake, sometimes to a depth of 2 or 3 ft. We cut a tent pole and sticks for our camps above timber. From the lake we went up northerly toward the

divide between the Azure and the Thompson, making altitude quickly, and that evening, about five, we camped beside the last low spruces. The ground was covered with false heather. Everything was oozing water, for the snow had just melted a day or two before and large snow patches were still near us. We carried no ground cloth or air mattress, so we built a 6-inch mattress of heather, and never on the trip did we sleep more comfortably than at "Heather Camp." The view from it was most beautiful—across the lake to the mountains S. of it, E. to the mountains across the Thompson, and W. to the Braithwaite Icefield and mountains. The elevation was 6660 ft.

In the morning, we soon reached a col in the ridge N. of us, beyond which we thought would be a large icefield upon which we could make quick progress N. When we reached the col our disappointment was great, for, instead of an icefield at our level, the ground dropped down steeply to a creek which flows to the N. E. This was the S. branch of the N. W. source of the Thompson. We preferred to name it the S. branch of "Ella Frye Creek."

While our first reaction was disappointment, our second was exhilaration, for in the distance were spectacular and majestic peaks in a ridge perhaps 10,000 ft. high. The entire Thompson watershed extends no farther than the ridge, and toward the left reaches only a subsidiary ridge branching from the principal one. From the moment we reached the col to the time we returned to timber a few days later, we saw breath-taking views that can never be forgotten.

To cross the creek would mean a loss of considerable elevation, so we decided to follow the ridge to the W. until it turned N. around the head of the creek, and then we would go N. until we reached the icefield we saw to the N. And this we did, climbing some of the low peaks on the way. I have numbered these for the purpose of the sketch map.

We climbed those numbered 1, 2, 4 and 8 on the sketch. All of them were mere walks. The ridge that we followed in the next two days, between the Azure and the Thompson, gives outstanding views in every direction, for there are no obstructing mountains anywhere near it. The views unfolded more and more information as we proceeded northward. We climbed No. 1, 7700 ft., and No. 2, 8010 ft., before lunch. From No. 1 we saw that the main

Thompson turns N. E. a short distance north of where Ella Frye Creek comes in. This N. E. source should be considered the main stream, for it is cut much more deeply into the mountains than Ella Frye Creek, and continues as a deeply cut canyon to its very source, where it rises in a long, narrow glacier. The glacier rises very steeply, almost, but not quite, to the divide ridge. There is no col at this point. We saw all this better later. From No. 2 we looked straight down the S. fork of Ella Frye Creek to the place where it joins the N. fork coming from the N. W. Together they flow S. E., and soon join the upper Thompson. The S. fork rises in a glacial pass but the glacier in the pass is shallow. From No. 2 we saw, S. 60° W. (magnetic correction in this locality is 26° 30′), a tremendous icefield, the Braithwaite, immediately W. of the Azure. At least one mountain in it seemed well over 10,000 ft.

As we lunched on the warm, sunny side of No. 2, a mother, father and baby goat crossed the glacial shoulder of No. 3 to the S. W. of us. We were now on glaciers practically all of the time. And Lorin was happy, for at last he was able to unload the gasoline in the primus. After lunch we continued W., passing No. 3 on our left. At 2.30 we saw the Azure below us, although we first thought it was the Raush for it seemed to flow N. Across the valley was the Braithwaite Icefield. We continued N., dropping down into the col at the head of the S. branch and then rose rapidly toward No. 4, staying on the Azure side. Looking back we saw three caribou on the ice we had just left. When we yelled they stood for a long time and looked at us. One of them, over-curious, started walking toward us, but we could not wait.

It took considerable resolution to pass several thick patches of grass on the sunny side of No. 4, but we continued until six o'clock, when we were just below the top of No. 4. We camped on the ridge in talc shale, so well broken as to seem soft, until we slept on it. And the shale was wet for it only recently had been covered with snow. As a strong wind was blowing from the W., we put our tent a few feet E. of the ridge thus getting the protection of the ridge for perhaps a foot. The drop-off to the E. was too steep to get farther below the ridge.

A fine sunset and far-reaching views made this camp at an elevation of 8180 ft. unforgettable. All of the glaciers were entirely covered with snow. To the S. W. the large Braithwaite

Icefield looked more spectacular than ever. With the western sun on its frosted surface, it shimmered like cellophane. To the N. W. were the glaciers just W. of the source of the Azure and the Raush.

Far to the E. was Albreda Peak (10,090 ft.) of the Monashee Range. Thorington's excellent *Climbers' Guide to the Interior Ranges of British Columbia* states that Albreda "is the only important summit in the N. (North Monashee) area visible from the railroad." I believe that at least one, and possibly more, are visible from the railroad. At any rate, from our camp site we could see several mountains S. of Albreda and E. of the Canadian National Railway, which are higher than Albreda.[1] After returning home, I learned that one of them is approximately 10,500 ft. high.

But we did not sleep much. The wind blew hard all night. Fearing that the tent would blow away, we crowded our packs inside our small tent to hold it down, but it continued to rattle noisily and flap against us all night. We were lying on hard, cold, wet stones. We wore knitted caps. But instead of wearing my camel's hair mittens, I placed them carefully below me, and the few square inches did help when one one arranged oneself scientifically on them. When I did sleep, I slept lying on my arms, placed below my back or below my stomach and chest. This created an air space, at least for my body. We were quite glad to get up in the cold morning air.

At 9.30 the next morning we were on top of No. 4, elevation 8950 ft. We could see that our proposed route to the Canoe River over the col near Blackstone Glacier was feasible. From here, we had our best view of the open pass, still in snow, by which one could go from the Azure to Hobson Creek flowing W., and so reach, ultimately, Quesnelle Lake and the Fraser. From this pass the entire Braithwaite Icefield and the large icefield to the N. are easily accessible. The northern icefield feeds the Azure on its S. E., the Raush on its E. and N., and the Hobson on its W.

[1] At least six peaks, one of them the highest of the Monashee Range, exceed Albreda Peak in elevation, valleys heading among them reaching the railroad between Lempriere and Blue River. The range broadens considerably in this area, and it is questionable whether these high summits are visible from the railroad. One would at least require Mr. Zillmer's special knowledge.—*Ed.*

The passes to Hobson Creek, to Summit Lake, and to the Raush, are the only open passes in the upper Azure.

Leaving No. 4, we continued N. on the glacier, but on the Thompson side of the ridge, passing Nos. 5 and 6 on our left. They are probably close to 10,000 ft. high. Time did not permit climbing either of them. We were on a considerable icefield, perhaps three to four miles N. and S., and several miles E. and W. N. of No. 6 the ice reaches in beautiful curves to quite near the top of No. 6. We cached most of our supplies on the icefield near No. 5 and continued N. to a col between two knobs that stuck out above the ice and seemed to give a fine viewpoint. At the col we turned W., reaching knob No. 8, elevation 8460 ft., at 11.40 A.M.

The view from No. 8 settled many questions. Below us, to the N., was the glacial pass and the N. branch of Ella Frye Creek, which rises from it. We knew then that the only sizeable streams at the source of the upper Thompson are Blackstone Creek, Ella Frye Creek, and the main stream ending in Thompson Glacier—all of them having high glacial sources.

To the W., and several thousand feet below us, was a flat meadow (elevation 5250 ft.) in which the Azure and the Raush rise. To the W. of the meadow two large lobes of the glacier come down, the southern lobe feeding the Azure and the northern lobe the Raush.

The Mundays[2] and Carpé[3] determined that there was a low pass between the Raush and the Thompson. The Mundays probably thought that the pass was S. of this meadow. Their picture in the *Canadian Alpine Journal* (xvii, 78) seems to include this meadow, although they assumed it was entirely in the Raush basin. Carpé referred to a "continuous trench" from the Raush to the Thompson.

Returning to our view from No. 8, at the farthest N. was the ridge which is perhaps 10,000 ft. high at many parts, and perhaps 11,000 ft. in the high peaks rising out of or near it. I noted few breaks in this ridge, which extends W. until it turns N. and out of view where the Raush flows N. The ridge extends E., turning slightly S. before the Thompson Glacier is reached. Then

[2] *C. A. J.*, xv, 129.
[3] *Appalachia*, June, 1928, 5.

it turns abruptly S. and continues a little E. of S. to beyond the Blackstone Glacier. I have marked this ridge A, B, C, on the sketch map. Further S. it turns to the E. again, and it is probably lower and more broken thereafter.

N. W. of where the Thompson Glacier reaches the ridge, a subsidiary, lower ridge leaves the main ridge and goes southwesterly, forming the N. W. side of the upper Thompson canyon. It continues until it reaches a mountain lying N. of the junction of the Thompson and Frye Creek. Here the ridge turns westerly until it drops steeply into the Raush. This ridge is marked BDE, D being the mountain referred to above.

The Raush, after it leaves the upper meadows, elevation 5250 ft., drops suddenly about 2000 ft. to join other branches of the Raush. The drop of 2000 ft. probably begins at the point where the subsidiary ridge extended W. would have been, and I cannot help but speculate that this point was once the divide between the Azure and the Raush, until the time the débris from the glacier raised the level of the valley of the Azure to the height of the present meadow, so that some of the water could drain N.

Standing on No. 8, and looking N., the portion DE of the subsidiary ridge was immediately ahead of us. Across it we saw a large glacier on the S. of the W. part of the divide ridge, with a still larger and flatter glacial field to the E. of it, which latter field apparently must fill the entire upper half of the area between the two ridges. These two icefields must be at the source of the larger E. branch of the Raush, which could not be seen and which is just behind the subsidiary ridge.

The Raush branch coming from the meadow is joined, after it has made most of its precipitous drop, by what I have called the E. branch of the Raush. The two then flow W. a short distance and then turn abruptly N., being joined undoubtedly by considerable water from the N. side of the large glacier E. of Hobson Creek.

There is a col in the subsidiary ridge between the N. branch of Ella Frye Creek and the large icefield lying between the two ridges. There is another col in the main ridge, N. W. of Thompson Glacier. These cols offer another feasible route to cross to the Canoe.

The large icefield between the two ridges drains entirely into the E. branch of the Raush, except for a slight trickle of ice which

overflows a low point in the subsidiary ridge to drop precipitously into Thompson canyon. This slight overflow is visible from the Thompson River at the ford.

The Mundays[4] believe that there is a large icefield 30-40 square miles in area, "S. and W. of Mt. Thompson," or "on the glacial plateau, between the converging upper reaches of the Shuswap N. (Raush) and Thompson Rivers." If there is such an icefield, it must lie N. and E. of the divide ridge, for there is no such icefield in the basins of the Thompson or in the upper Raush. They may have in mind the large Braithwaite Icefield which is W. of the Azure and not in the Thompson basin.

I have attempted to identify the high peaks I saw to the N. and N. E., with reference to the peaks climbed by Carpé and the Mundays. My ideas on this question are too speculative to put on record.

As the weather began to change, we hurried back to our cache on the ice, where we lunched lightly in a cold wind, took a more direct route back, and reached our "Heather Camp" by forced marches. On the way we again saw three goats crossing the ice shoulder of No. 3, and as we were going up the ridge near No. 1, the head of another goat peered at us from the ridge. We slept long the next morning. Going down to Summit Lake by a different route, we happened upon a most beautiful flower garden, the only really luxuriant growing flowers we had seen, except for willow herb and yellow water lilies in the Thompson Valley. The valleys are too deeply cut and heavily wooded to contain many flowers. We reached the Thompson crossing at 5.00 P.M., but could not cross until the next morning, for the water was flowing so fast that the center portion was a foot higher than the sides.

With fine weather, we walked out from here in three days. Everything had grown tremendously since we had been there a week or so before. The wild parsnips and ferns were over our heads and, I am sorry to say, the nettle and devils club too, so we walked often with our hands high in the air. And the mosquitoes on the last day! There is no vocabulary in any language for them. We had lost about 30 lbs. between us, and in spite of mosquitoes, rain, mud and marshes, we are rar'n to go back to the Cariboos.

[4] *C. A. J.*, XV, 131; *Appalachia*, Feb., 1926, 402.