

He also made a similar survey of the Waswanipi river, from the lake of the same name nearly to its source, from which he crossed to Lake Mistassini (Big-stone lake) and returned home by Lake St. John and Quebec.

The country explored in the two years measures about 280 miles, in a straight line, from north to south, by about 230 from east to west, and has an area of about 60,000 square miles, which is larger than that of England. The greater part of it is comprised in the hydrographic basin of the Noddawai river and its branches; but it also includes the country drained by a large stream between these waters and the Rupert river, locally known as the Broadback river, which falls into the mouth of the Noddawai. The whole region may be described in a general way as a nearly even plateau moderately elevated above the sea, the surface being broken here and there by isolated hills and ridges of no great height. Starting at the eastern boundary of Ontario, which runs due north and south, the southern height-of-land of the Hudson bay slope runs eastward not far from the upper Ottawa to the source of that river, from which it turns north-eastward and passes close to the east of Lake Mistassini. The portion of this watershed which runs near the Ottawa river has an elevation varying from about 850 to about 1050 feet above the sea. At the northern extremity of Grand lake it is not much more than 900 feet, and the surface of the country slopes gradually northward for 150 miles to Lake Mattagami, where the elevation is about 600 feet. The descent continues to be slight for the next 50 miles toward James bay, amounting to perhaps 150 feet, but in the remaining 80 miles the Noddawai river, and with it the general surface, falls about 450 feet to the head of Rupert bay. This main discharge receives only small tributaries from either side, the drainage of the greater part of the Noddawai basin having flowed together at Lake Mattagami as the central reservoir of the system. This Otchipwé word means "lake where the waters (or branches) meet," and is a very appropriate name. Lake Waswanipi, which is 10 miles long, discharges by the lower section of the river of the same name into this lake, the intervening distance being about 55 miles; but between them are Gull lake 30 miles long and a sheet of water 17 miles in length, which I have called Lake Olga. Navigation is interrupted by a chute known as the Red fall at the outlet of the latter, and by a rapid at the discharge of Gull lake.

My operations between Lake Waswanipi and Rupert river, in the latter part of the season of 1896, included track-surveys of the shores of Gull lake and of four other large sheets of water, besides a number of small ones, which together form a chain extending from it to Lake Namiska on the above-mentioned river. The lakes to the northward of Gull lake all discharge by the Broadback river, and several large streams flow into the chain from the eastward, three of them having their sources near Lake Mistassini. But only small streams are received from the westward, showing that the general slope of the country is from the east