

feeder of that lake. This river was referred to in the report of my explorations last season as having been ascended for a short distance by one of my *voyageurs* (John Driver), who gave a favourable description of the soil and timber.

A short distance, however, above the point reached last year, Grassy river was found to be quite unnavigable, partly owing to the lowness of the water, but chiefly to obstructions by fallen trees and drift-wood. We were only able, therefore, to ascend this stream about four miles above the point previously attained by Driver.

Returning to the Missanabie river, the land on both sides of that river was examined at a number of points between Opazatika portage and the Hudson Bay Company's Post on Lake Missanabie.

On my arrival at this Post, three out of four of my guides and *voyageurs* wished to leave, being anxious to get their outfits or supplies and depart for their hunting grounds. Seeing little probability of being able to replace them with others at all suitable, and the smaller rivers having now become unnavigable, I concluded to return. This I did by the Michipicoten river and lake Superior route. I had, on starting out this season, intended, if practicable, returning from the Height of Land to Lake Superior, down Goulais river, but on enquiry I was led to believe that this route, if practicable at all, is only so very early in the season, before the subsidence of the spring floods. The upper portions of this river remain, as I believe, still unexplored.

With this brief narrative of my explorations this season, I shall now proceed to give such information as I may have obtained, and such opinions as I may have formed in reference to the country, under the usual heads.

LAND.

As frequently mentioned in former reports, the trifling elevation of the general surface above the rivers by which it is drained, and the flat or level character of this northern territory, are physical features very unfavourable to the natural fertility of the land, and to the spontaneous production or growth of those plants and animals apparently, if not really, of the greatest value and importance to mankind. These features are more especially noticeable in that section or portion of the country bordering on James' Bay, from near Rupert's House to Albany Factory, at the mouth of the Albany river, and extending inland from the coast in a south-westerly direction from one hundred to two hundred miles. The loose surface material in this region rests on nearly horizontal beds of limestone, sandstone, and other stratified rocks, which are there found at no great depth. The soil, or the sub-soil, is almost invariably composed largely of alumina, forming with silicia and lime, clays and marls, more or less heavy, and retentive of moisture. This circumstance, coupled with the low, flat nature of the country, is unfavourable to good natural drainage, and the land is almost universally cold and wet, unless situated on or near the banks of the rivers. These conditions have favoured the growth of sphagnum or bog-moss, resulting in the formation of the peat-mosses or bogs, which now cover so large a proportion of this northern zone or belt. They are called muskego, or muskegs, by the natives.

A "muskeg" differs materially from what is commonly understood by the term "swamp," as those know who have seen both. In this territory, the peat mosses or muskegs may, and in fact generally do, occupy the higher ground—those parts of the plateau which are rarely, if ever, flooded or inundated by the water of the rivers. The swamps, on the other hand, usually occupy the lower ground, on or near rivers and lakes, and are liable to be flooded to a greater or less depth periodically, more particularly at the time of the spring freshets, occasioned by the melting of the snow which falls and accumulates on the ground and in the woods during the winter. The muskeg of the north is deeply carpeted with bog-moss, and with the moss may be found a few plants and shrubs, such as are generally seen growing on peat bogs elsewhere. If there be any trees they consist of stunted and sickly looking tamarac and spruce, thinly scattered and of no economic use or value whatever. The soil in the swamps, although wet, is frequently good, and often supports a vigorous and healthy growth of forest trees, chiefly spruce and tamarac, and if not overcrowded or situated too near the coast, such trees attain useful size.