

close to view other and more ancient strata. These are described below and are in part of Silurian and Cambro-Silurian age, but resting upon the last-named rocks unconformably, and forming several small areas more or less disconnected, is also a series of beds the character and position of which sufficiently show that they are the representatives of the Lower Carboniferous formation. As seen along the valley of the North Branch, at and below Shaw's mill, they are mostly conglomerates of a coarse character, filled with large well-rounded pebbles of the underlying rocks, and possessing a brownish-red colour. Similar conglomerates occur also near the bridge above the Howard brooks, where they form conspicuous and precipitous hills with an elevation, above the valley, of about 300 feet. Still farther up, in the same valley, the highest beds seen are bright red and purple—sometimes mottled—sandstones and shales; but towards the head of the branch, the red rocks are seen to rest upon and apparently to graduate downwards into red somewhat earthy felsites, associated with grey felspathic or doleritic sandstones. These felsites are similar in character to those which occur at Harvey settlement and elsewhere around the border of the central Carboniferous area of the province, and are probably of contemporary origin. Excluding the felsites and associated trappean beds, the dip of the Lower Carboniferous sediments in this valley, like that of the coal measures, is usually low, varying from 5° to 20°. In some of the felspathic sandstones, however, as observed by Mr. Matthew, the dip is as high as 60°.

Owing to the thickly wooded character of most of the region adjoining the Beccaguimic and its branches, and the consequent infrequency of exposures, the determination of the nature of the underlying rocks is often a matter of great difficulty, and their boundaries are necessarily somewhat conjectural. Lower Carboniferous sediments, however, in the form of red marls and sandstones, occur along the larger part of the North Branch valley, and again along that of the South Branch, as far as its North Fork near Hamilton brook. The extreme limit of the Carboniferous triangle in this direction is probably about one mile west of South Branch Lake, and but little more from the south-western end of the great granite belt of York and Carleton. Carboniferous rocks also occupy, as has been before stated, a considerable area between the point of confluence of the branches of the Beccaguimic and the St. John River, being well exposed about the summit of the eminence known as Pole Hill, and again in the cuttings along the old track of the New Brunswick railway where this crosses the valley of the Little Pokiok stream. At Pole Hill, the rocks are red and grey conglomerates, resting, with a low dip, on highly tilted Silurian slates.