

Geologically the region is found to embrace the following systems and divisions:—

G. Carboniferous.

(a) Middle Carboniferous (Millstone Grit.)

geological
formations.

(b) Lower Carboniferous.

F. Devonian.

E. Silurian.

D. Cambro-Silurian.

A. B. Pre-Cambrian.

Crystalline rocks, including granite.

G. CARBONIFEROUS.

The Carboniferous rocks in the district examined are of comparatively limited extent, and are comprised in three areas, of which one includes a portion of the valley of the Tobique, a second, a part of the district traversed by the Beceagnimic and its tributaries, and the third, portions of north-eastern York county, between Stanley and the Michichi River.

The Tobique area was somewhat closely examined by Prof. H. Y. Hind in 1865 and again by Mr. Charles Robb in 1868, and in the reports of these gentlemen the more important facts as to its extent and character are given. The present examination has been chiefly directed to a more accurate limitation of its boundaries, effected by ascending and measuring the several streams—the Gulquac, the Odell and Odelloch—which are tributary to the Tobique from the southern side. These measurements, made by Mr. McInnes, give this Carboniferous area a somewhat increased breadth as compared with previous representations. Its southern margin is near the head-waters of the streams named, and distant, at the widest part, about nine miles from the main valley of the Tobique. The total breadth of the area would thus be about twelve miles, and its length, from the Red Rapids to Blue Mountain, about twenty-seven miles.

The rocks appear to belong wholly to the lower or marine division of the Carboniferous system, and as seen along the course of the Tobique, present a succession of low undulations, the dip rarely rising higher than 4° or 5° . The following is a summary of their main sub-divisions in descending order:—

Trappean beds, consisting of grey amygdaloidal dolerite.

Heavy beds of impure gypsum, of pale-green and reddish colours, mostly fibrous but sometimes compact, alternating with thin beds of red shale. Thickness about 350 feet.