

east; this will be further referred to. East of the main body of granite, the Pre-Cambrian rocks consist mainly of felspathic gneisses and schists; they are described by Mr. Ellis in the Report of Progress for 1879-80, page 32 D.

Blue
Mountains.

In addition to the main area of these rocks above described, another smaller tract lying to the southeast of the Blue Mountains is occupied by strata, which are probably also of Pre-Cambrian age. Very hard white and red crystalline felsites, not distinguishable in macroscopical character from those so common in the main Pre-Cambrian area, form high cliffs on the Gulquac River, a few miles up from its mouth. Although not occurring in actual contact with the Lower Carboniferous strata, they are seen for a considerable distance along the stream, rising in high bluffs on the right bank, while on the left, the red sandstones and conglomerates of the Lower Carboniferous lie in their usual, almost horizontal, position, and show neither alteration nor disturbance, both of which might be looked for were these felsites intruded since the deposition of the sandstones.

Gr. GRANITE.

Two areas.

Two areas of granite come within the district under consideration. The larger of these has an average width of about twelve miles, and extends from the head waters of the NW. Miramichi in a south-westerly direction to and beyond the lakes at the sources of the Gulquac and Little S.W. Miramichi rivers. The smaller is a long narrow tongue, about four miles in width, running up into the Pre-Cambrian from the main granitic mass to the south. It lies about five miles to the east of the first and nearly parallel to it.

Character of
the granite.

The granite in both of these areas is of the same character and is quite similar to that described in previous reports as intrusive and probably of Devonian age; in texture, it varies from medium grain to coarse, with large crystals of orthoclase feldspar. The mica is often a black variety of this mineral, and is not unfrequently replaced by hornblende; sometimes both mica and hornblende are present. In the absence of exposures of rock *in situ*, the south-westward edge of the larger granitic mass has been fixed at the western limit of the large granite blocks and boulders which are strewn along the shores and neighbouring hill-sides about the upper half of Long Lake. The difference in the character of the boulders along the upper and lower stretches of this lake is strongly marked; along the lower part of the lake, chloritic quartzites, gneisses and schists form the larger number of the boulders, and large blocks of granite are markedly absent, while towards its head, those of granite are the prevailing feature and the others are seldom seen.

Boulders.