istic and abundant fossil fauna and flora as described* by Logan, Billings, Dawson, Honeyman, Hartt, Bailey, Whiteaves and others. Whether the Gaspé limestones are to be considered to belong to the base of the Devonian or the top of the Silurian seems to be palæontologically uncertain. Stratigraphically they are conformable and therefore both are now regarded as Devonian and so colored on the present map.

The main Siluro-Devonian Area is limited to the south-east by the belt No. 3, already referred to, of Cambro-Silurian and older strata. This area, 150 miles in length and 30 to 50 miles wide, occupies the centre of the province of New Brunswick, and is for the most part densely wooded and difficult of access. Hence it has been impossible accurately to define the limits of the several groups of strata. No very characteristic fossils have been found in it and none sufficiently perfect for specific determination. Graptolites of Utica types are abundant in some parts, also fragments of crinoids, brachiopods, gasteropods, &c. The following notes by Mr. Ells from the recently published geological map which embraces the north-western part of the area, give a general idea of its structure and character, and for further detail the maps and reports must be consulted.†

The rocks of Cambro-Silurian age, as in the south-western portion of the province, present great lithological differences. The great bulk of them, however, though somewhat altered, lack the highly metamorphic character so marked in those of the Pre-Cambrian system. Black graptolitic and ferruginous shales and slates, with reddish and manganese stained beds; also greenish-grey sandstone, with imperfect remains of fossils, are intimately associated with hard and often schistose metamorphic beds. The separation of these from the Pre-Cambrian has been made both on lithological and stratigraphical grounds, though the boundaries are necessarily to some extent conjectural, because from the nature of the country they cannot be traced continuously. Indications of copper ore were noted on the Nipisiguit and North-West Miramichi Rivers, but not in sufficient quantity to be of value. Galena and manganese were observed in small quantities at several points. Ridges of good farming land occur between the principal rivers.

The Pre-Cambrian system in this area consists largely of very felspathic schists and gneisses; they are all highly metamorphic, and apparently form two axes, running roughly parallel to each other in a north-easterly direction. These are separated by rocks of presumed

* Geology of Canada, 1863. Canadian Naturalist. Acadian Geology, 1868. Jourl. Inter. Geological Society. Transactions of the Nova Scotia Institute. Progress Reports of the Geological Survey of Canada, etc., etc.

† Geological Survey of Canada 1879-80-81-82, Reports D.