

Many of the beds exhibit surfaces covered with ripple marks and other indications of their aqueous and shallow water origin, but the most diligent search has as yet failed to discover the existence of any organic remains. In attitude they are greatly disturbed, exhibiting numerous folds and slickensides, indicative of faulting, while veins of quartz and chlorite abound, and, less commonly, dykes or irregular masses of diorite and syenite. All these features may be well studied along the line of the St. John River between the mouth of Eel River and Woodstock, as well as on the main line of the New Brunswick railway and the Woodstock branch.

The extension of the northern belt of Cambro-Silurian rocks east of the St. John River will admit of more brief description, as the features which these present are similar for the most part to those already described, while they are at the same time less thoroughly exposed. Along the river front the succession, as far as seen, corresponds to that of the opposite side. The slates and quartzites form the greater portion of the shore in Middle and Upper Southampton and the lower part of Northampton, but are broken by irregular masses of syenite, while opposite Woodstock the hills are chiefly composed of felspathic, granitoid and gneissoid grits. These are followed, towards Newburgh, by green and red chloritic schists, which run parallel to the river with a high northwesterly dip, and are well exposed in the deep gorge at the mouth of Acker's creek. The more northerly beds of the system exposed in this section are seen in the cuttings along the railway track at and about the mouth of Deep Creek. They consist of heavy beds of greenish-grey dioritic sandstone, mingled with more schistose beds of green and purple colors, all of which contain much disseminated chlorite and are stained with iron and manganese. The dip varies from S. 20 W. at Deep Creek to N. 20 W. about a-quarter of a mile above. In this direction these beds are, at the mouth of the Little Pokiok, followed by the grey calcareous conglomerates of the Silurian.

Eastward of the river the country is to a large extent uncleared. Members of the lower crystalline division (gneiss, &c.) may, however, be seen at many points along the northern side of the granite, through the settlements of Middle Southampton, Maple Ridge and Norton-dale; the beds most frequently met with being dark colored slates, which are sometimes plumbaginous, and greenish schists containing chlorite. In the settlement west of Nigger Brook they include a workable bed of limestone, in character not unlike that of Dorington Hill and Canterbury. It is noticeable that there are here but few beds of the purple or lilac micaceous sandstones so conspicuous in the last named parish; the rocks which approach the granite most nearly at Millville being the black plumbaginous slates, while just east, on Howland Ridge, still

Southampton
and Northampton.

Acker's Creek.

Contact of
systems.

Limestone.