

Distribution
of the Pre-
Carboniferous
formations.

The large Pre-Carboniferous metamorphic area, eighteen miles wide at the Strait of Canso, narrows near Lochaber, about thirty-five miles to the south-westward* to less than five miles: then widens again to about eighteen miles between the Carboniferous basins of Merigomish and East River of St. Mary's, sending an unbroken spur along the sea shore from McAra's Brook to Livingstone Cove, near Cape George.

Composed
largely of
Devonian and
Cambro-
Silurian rocks.

This area, described by Sir J. W. Dawson,† instead of being Silurian as supposed by him, includes, from the Strait of Canso to Lochaber, only the plant-bearing Devonian strata described in previous reports,‡ and to the north and west, chiefly Cambro-Silurian and older formations.

Gesner's map.

On Gesner's geological map of Nova Scotia, published in the Proceedings of the Geological Society of London for 1843, p. 280, the rocks about Chedabucto Bay are called metamorphic and Silurian, but the Carboniferous area of River Inhabitants is colored in the same way, while all Madame Island is referred to the gypsiferous series, the southern metamorphic portion having probably not been examined. Mr. Brown's views on these rocks are given in the Proceedings of the same Society, Vol. iv., p. 424.

Areas of
Silurian rocks.

Small areas of Silurian rocks, holding characteristic fossils, are found resting unconformably on the older formations: (1) at Cape George; (2) at Arisaig; (3) at Vamey's Brook; (4) in the valley of Marshy Hope; (5) at Lochaber; (6) in a basin extending southward from Avondale up Barney's River and across French River toward Sutherland's River; (7) in a small basin at Moose River; (8) in irregular, broken outcrops extending from Kerrowgare down the East River of Pictou, where fossils have been collected and described by Sir J. W. Dawson, Dr. Honeyman, and others; (9) in a small area north of Sutherland Lake.

A rich and interesting field of research is presented by the Cambro-Silurian rocks, from which few fossils have yet been collected, more attention having been given to unravelling the structure of this hitherto little known series.

Areas of
Carboniferous
rocks.

Carboniferous rocks occupy three well marked belts often folded obliquely to the longer axis. These are: (1) The St. George's Bay basin, perhaps containing no beds higher than the Carboniferous limestone, extending from North Canso 'o Ohio, thence northward to Cape George, but broken at Antigonish Harbour by bosses of older rocks, the largest of which runs from the Sugar-loaf Mountain to Morristown; (2) the Merigomish basin, extending from McAra's Brook westward

* All the courses given in this report are astronomical, the variation being about $24^{\circ} 15'$ west at the Strait of Canso. They are reckoned in degrees from the north, 0° , by east, 90° , south, 180° and west, 270° to 360° .

† Acadian Geology, pp. 558 and 568.

‡ Geol. Survey Report for 1877-78, p. 16 v. and Report for 1879-80, p. 32 v.