

they support is a representative of the lower limestone at Antigonish and Pietou. To the lower grits I would also refer the mass of dark red sandstones and shales at Eagle's Nest, three miles from the mouth of the estuary of the Shubenacadie. The mass of contorted dark sandstones and shales at Five-mile River resembles some parts of the productive coal formation more nearly than any of the lower carboniferous rocks : and the horizontal red sandstone, a few miles farther up, is analogous to many of the beds both above and below the gypsum at Antigonish and Pietou.

From a comparison of the appearances of the lower carboniferous rocks in the various sections which I have examined, I have drawn out the following table, which, I think, exhibits very nearly their general arrangement. It commences with the productive coal measures.

Lower Carboniferous or Gypsiferous Formation.

Rocks.	Fossils.	Where seen.
1. Brownish-red, mottled and grey sandstones; brownish-red shales; some conglomerates; the beds containing small quantities of copper ores.	Endogenites, Cadamites, Lepidodendron.	Merigonish, East River, Middle R., Shubenacadie?
2. Brownish-red hard sandstones and shales, often rippled; some grey sandstones, conglomerates, and limestones; copper ores in small quantity.	Fragments of plants and fucoidal markings; Productus (especially P. Martini), Terebratula, Spirifer, and other shells.	East River, Merigonish, West River, Middle River, Economy, Wardrobe's, on Shubenacadie?
3. Reddish and white sandstones and marls, usually soft; beds of gypsum and limestone (the lowest bed usually a non-fossiliferous limestone); veins and fissures with ores of iron, manganese, copper, &c.	Productus (especially P. Lyelli), Terebratula, Ecrinites, Corals, Spirifer, Pecten, Avicula, &c. &c.	East River, Antigonish, Shubenacadie, Onslow Mountain, De Bert R., Windsor, Pugwash, Wallace, &c.
4. Reddish-brown conglomerates and hard grits; some dark and grey sandstones, and brown and dark shales.	Various plants.	Antigonish, Shubenacadie, Truro, Salmon R.

Newer Coal Formation, Sandstones, &c.

In several parts of the eastern section of Nova Scotia, there are extensive deposits of sandstones and shales, principally of a brownish-red colour, and including some thin beds of concretionary limestone and grey sandstone. They contain a few calamites and other carboniferous plants. These beds constitute, I believe, the newest member of the carboniferous series, and are connected with the productive coal measures by a thick series of reddish-brown and grey sandstones, shales, and conglomerates, often abounding in