

they attain a depth of 9500 feet, and again on the opposite side of the Bay of Fundy. The researches of Sir J. W. Dawson, already referred to, have made known the remarkable flora of these rocks. Some of the same plants have been met with in the Devonian rocks to the west of the Archæan ridge, so that there can be little doubt of the contemporaneity of the deposits on the two sides. Besides the abundant vegetation, a few traces of the fauna of the period have been recovered from the Old Red Sandstone. Among them are the remains of several small crustaceans, including a minute shrimp-like Eurypterus, and the more highly organized Amphipeltis, with the snail (Strophites) referred to on p. 1318. That the sea had at least occasional access to the inland basins into which the abundant terrestrial vegetation was washed, is proved by the occurrence of marine organisms, such as a small annelid (Spirorbis) adhering to the leaves of the plants, and (in Gaspé and Nova Scotia) by the occasional appearance of brachiopods, especially Lingula, Spirifer, and Chonetes.<sup>170</sup>

#### Section iv. Carboniferous

##### § 1. General Characters

This great system of rocks has received its name from the seams of coal which form one of its distinguishing characters in most parts of the world. Both in Europe and America it may be seen passing down conformably into the Devonian and Old Red Sandstone. So insensible indeed is the gradation in many consecutive sections where the two systems join each other that no sharp line can there be drawn between them. This stratigraphical passage is likewise in many places associated with a corresponding commingling of organic remains, either by the ascent of undoubted Devonian species into the lower parts of the Carboniferous series, or by the appearance in the Upper Devonian beds of species which attained their maximum development in Carbonifer-

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<sup>170</sup> Dawson's "Acadian Geology," chaps. xxi. and xxii.