

DISTRIBUTION OF THE GASPE SANDSTONES.

(From the Geology of Canada, p. 394 to p. 400.)

Succeeding the calcareous rocks just described, and resting upon them conformably, there occurs an important group of sandstones. The contact of the two series, as already stated, is seen at Little Gaspé; but between the visible base of the sandstone group and the place of its greatest development, there are two considerable undulations, and a probable dislocation, of an uncertain amount. These render it difficult as yet to unite the whole series, with a certainty that no strata are repeated or left out. But though the section which shows the greatest unbroken series of strata, does not reach to the base, it is probably not far removed from it; and it may, therefore, for the present, be assumed, probably without much inaccuracy, to represent the whole group. In ascending order, the strata are as follows:—

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| 1. Grey arenaceous and argillaceous shales, with beds of grey sandstone, varying in thickness from one to twenty feet, and one of them seventy-five feet. A three-inch band of argillaceous iron ore occurs about a hundred feet from the top. Towards the bottom, the beds weather of a rusty brown color, and contain abundance of plants. One of these, in its arrangement on the surface of the beds, resembles <i>Fucoides graphica</i> , but it may be the broken roots or stems of the other species of plants, which have been recognized in this deposit; surfaces thus characterized were met with in more than one locality. Many of the beds abound with the comminuted remains of carbonized plants, most of which are too obscure to be determined. Among them, however, are <i>Prototaxites Loganii</i> , <i>Lepidodendron Gaspinum</i> , <i>Psilophyton princeps</i> , <i>P. robustius</i> , <i>Selaginites formosus</i> , and <i>Cordailes angustifolia</i> ; all described by Dr. Dawson. Towards the lower part, there is a small seam of coal, with carbonaceous scale, measuring together about three inches; which appears to hold a regular course, having a bed of clay beneath, marked by what seem to be the roots of <i>Psilophyton</i> ; while the stems and leaflets of the plant are met with in a thin seam of shale above the coal, and in the carbonaceous shale associated with it. On some of the leaflets, small shells of the genus <i>Spirorbis</i> are met with. More than 130 feet above the coal seam, there is a hard rough grey bed, looking like fire-clay; with the fibrous impressions of <i>Psilophyton</i> roots penetrating it at right angles. Ripple-mark occurs on some of the surfaces..... | Feet. |
| 2. Drab sandstones, many of them with a reddish tinge; they present spheroidal masses harder than the general character of the rock, and are marked by extensive ferruginous stains. A few scattered pebbles of quartz and jasper occur in some of the beds, which are in general thick, and separated from one another by layers and partings of grey argillaceous and arenaceous shale. Nodules of argillaceous iron ore are contained in some of the layers, and comminuted carbonized plants are frequently seen on the divisional surfaces; those which have been determined belong to the species already mentioned..... | 528 |
| 3. Drab sandstones, inclining to reddish at the bottom and greenish at the top; with occasional scattered quartz and jasper pebbles, and large spheroidal masses, as above. Ferruginous stains are frequent, and the | 916 |