

original Fern Ledges from the collector's point of view. There are several minor faults in these beds, which tend to repeat the series, but even allowing for this there cannot be less than 20 bands of plant-containing shales, of various thicknesses, most of them containing a great variety of plants.

At the commencement of my work, guided by the published accounts of the Fern Ledge section, I had anticipated, or, at least, hoped for, evidence that these various bands represented zones in a geological sense. It soon became evident, however, that this is not the case. It is, of course, not impossible that extensive and careful work over the whole outcrop may reveal definite assemblages in a definite sequence, but that is elaborate and time consuming work which must be left for some future enthusiast. At present, I may state that the fossils I collected at Fern Ledges itself and along the coast, were so distributed as to give no encouragement to the idea that the various bands represented true zones. Nor indeed do the details of this section given by Hartt when their contents is looked into (see p. 116-118).

The general appearance of the fine shale bands alternating with the sandstones, is that of a deltaic deposit, probably at the mouth of a great river or at its entry into a lake, or it might be, the bend of a lagoon (the remarkable lack of marine fossils in the neighbourhood renders some such view very probable). The deposit appears to have collected rapidly (geologically speaking) probably in a sheltered lagoon or wide river, and was not mixed with the coarse and current-bedded material of an exposed shore. The differences in the species of the plants brought down from time to time in the current of the river can be readily accounted for by slight changes in the course of the water, or by flood effects in different parts of its course. (See p. 118 following). We have in the Fern Ledge flora the remains of the inland flora of the period, and one which had travelled down stream as debris for some distance before being entombed. It is, therefore, natural that sometimes one, and sometimes another species should preponderate in the various beds now appearing in consecutive order; but the sequence of these plant remains depended on local, fortuitous accidents, and do not appear to be an indication of appreciable differences of geological time.