

side of the bay, though we find there beds, probably on very nearly the same horizon, holding *Psilophyton in situ*.

As an illustration of one of the groups of shaly beds, and of the occurrence of roots of *Psilophyton*, I may give the following sectional list of beds seen near "Watering Brook," on the north shore of the bay. The order is descending:

	FT.	IN.
1. Grey sandstones and reddish pebbly sandstone of great thickness		
2. Bright-red shale.....	8	0
3. Grey shales with stems of <i>Psilophyton</i> , very abundant but badly preserved.....	0	5
4. Grey incoherent clay, slickensided, and with many rhizomes and roots of <i>Psilophyton</i>	0	3
5. Hard grey clay or shale, with fragments and roots of <i>Psilophyton</i>	4	0
6. Red shale.....	8	0
7. Grey and reddish crumbling sandstone.....		

Groups of beds similar to the above, but frequently much more rich in fossils, occur in many parts of the section, and evidently include fossil soils of the nature of under-clays, on which little else appears to have grown than a dense herbage of *Psilophyton*, along with plants of the genus *Arthrostroma*.

In addition to these shaly groups, there are numerous examples of beds of shale of small thickness included in coarse sandstones, and these beds often occur in detached fragments, as if the remnants of more continuous layers partially removed by currents of water. It is deserving of notice that nearly all these patches of shale are interlaced with roots or stems of *Psilophyton*, which sometimes project beyond their limits into the sandstone, as if the vegetable fibres had preserved the clay from removal. In short, these lines of patches of shale seem to be remnants of soils on which *Psilophyton* has flourished abundantly, and which have been partially swept away by the currents which deposited the sand. Some of the smaller patches may even be fragments of tough swamp soils interwoven with roots, drifted by the agency of the waves or possibly by ice; such masses are often moved in this way on the borders of modern swamps on the sea-coast.

The only remaining point connected with local geology to which I shall allude is the admirable facilities afforded by the Gaspé coast both for ascertaining the true geological relations of the beds, and for studying the Devonian plants, as distinctly exposed on large sur-