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under the most favorable circumstances, long and careful research. In addition to the difficulties of structure to be expected in any great mountain system, special difficulties are found in the degree to which regional metamorphism has been carried, in the occurrence of great volumes of contemporaneous volcanic material at various stages, and (partly no doubt as a consequence of the last) in the extreme paucity of fossil remains. Still further, the circumstance that the region as a whole must be described as more or less densely wooded, contrasts it very unfavorably, from a geologist's point of view, with the southern and open parts of the Cordillera, where he who runs may read many of the main structural facts.

Up to the present time the horizons which have in British Columbia been actually fixed by paleontological evidence may be summarized as follows:

1. Tertiary (probably Miocene).
2. Cretaceous (various stages, probably extending from the Laramie as far down as the Neocomian).
3. Alpine Trias.
4. Carboniferous.
5. Silurian (*Halysites* beds).
6. Cambro-Silurian (Trenton-Utica and perhaps somewhat lower).
7. Middle Cambrian.
8. Lower Cambrian (*Olenellus* beds).

Of these horizons, all but the Miocene have been recognized in the Rocky Mountains proper, or eastern range of the Cordillera. On the coast no fossils definitely older than the Carboniferous have yet been detected. In the interior plateau, fossils referable to the Miocene, lower Cretaceous, Alpine Trias and Carboniferous have been rather sparingly found, while in the mountain region of the Gold system, including the Selkirk, Purcell, Columbia and other ranges, we are as yet almost entirely without paleontological evidence.

Surveys in the Interior Plateau Region.—The writer has been engaged for some time in a detailed examination of an area of about 6,400 square miles in the interior plateau region, the materials for a geological map of which have now been obtained and are in course of elaboration. In connection with this work, and more particularly to assist in explaining the complexities of the older rocks of this area, it became desirable to ascertain, so far as possible, the relations of these rocks to those of the Rocky Mountains proper, across which one line of section has already been carefully worked out by Mr. R. G. McConnell.

With this object in view a preliminary examination was made last autumn across the intervening Selkirk range, on the line of the Canadian Pacific railway. This examination was necessarily confined to the vicinity of the railway and still requires to be supplemented by much detail, to be obtained