

face of the boulder clay, which covered the limestone outcrops, the waters of the lake spread a thick coating of the finely-ground shale that was excavated in the digging of the several large valleys that cut through the plateau to the west. This deposit, in lessening amount and thickness, is found over the lake basin area north of the Red River valley, and underlies the plains around Dauphin, Swan and Red Deer lakes.

On account of the soft nature of the rocks the stream valleys are deeply incised, which adds to the difficulty of using this passing water on the upland where it is often needed, since the rainfall is barely sufficient during some seasons to make up for the evaporation. Were these rivers nearer the surface the question of diversion would be simple, but long and expensive canals are required. The surface is generally treeless owing to the light rainfall. Tree planting is proceeding rapidly and is quite noticeable in Manitoba, where the bare prairie is rapidly disappearing. This, if it does not induce a much greater rainfall, retards the evaporation of the ground moisture.

As a short summary, we may repeat that the basin which received the muddy deposits of Cretaceous time has had a varied history. The rocks of the western margin were elevated and broken into long narrow blocks, which are piled up in succession to form the Rocky Mountains. A second strip was strongly folded but not elevated as high as the mountains and constitutes the foothills. A third strip formed a ridge in advance of the folded foothills and now shows a simple synclinal structure, while the remainder, less disturbed but sloping generally to the east, forms the Great Plains of the northwest provinces.

SPRING EXCURSIONS, 1916.

- May 6—Rockcliffe to McKay's Lake and vicinity—Geological excursion.
- May 13—Cache Bay, west of Hull—General Zoological excursion.
- May 27—Ferry Lake and vicinity—The study of Botany to be given special attention.
- June 10—Aylmer Park and vicinity—General Zoological excursion.
- June 17—Experimental Farm—Attention to be given chiefly to practical Botany and Horticulture.