

TRANSITION AREA.

Boundaries.—This region is bounded on the west by the prairies and on the east by the rough rocky Laurentian country. Grading along its western border into the prairies and on the east into the Laurentian type, this strip of country extends southeasterly across the border into the United States.

Altitude.—The average altitude runs from about 800 feet in the northern part to 1,100 feet in the south and east, while in the Cypress mountains, near Badger, an altitude of 1,250 feet is attained. In no part, however, is there sufficient variation in altitude to have any influence on the occurrence of frosts.

Topography.—This area may be briefly described as a broad muskeg plain, sloping slightly to the north and west, with the monotony broken at intervals by gravel and sand ridges. These ridges consist of eskers, moraines and drumlins, wherein is well exemplified the power of glaciers to modify the land surface.

Drainage.—Over 75 per cent of this area, consisting chiefly of muskegs, lies in the drainage basin of the Whitemouth river. This river, rising near the United States boundary at Whitemouth lake and following a very tortuous course, flows almost due north, bordered on either side by muskegs for the greater part of its length, from here to where it enters the Winnipeg river, about sixty miles on a direct line. Whitemouth lake is almost surrounded by muskeg, the shores of which are floating bog, and, with only three to six feet of water on a bottom of silty, slimy material, is very typical of a lake on the height of land in a muskeg district. The river on leaving the lake is only about eight feet wide and three feet deep. Its volume steadily increases as it is joined by the numerous streams tributary to it, the two largest of which are the west branch of the Whitemouth and Birch river, until, where it enters the Winnipeg river, it is about 300 feet wide.

The Lake of the Woods claims the drainage from the eastern part of these muskegs, while the Roseau and Rat rivers on the south, the Seine and Brokenhead on the west, and Catfish creek and the Winnipeg river receive the drainage from the remainder.

The lack of drainage is the feature which determines the type of vegetation most prevalent in this region, namely, the muskeg type. Insufficient drainage is here due to an impenetrable subsoil of boulder clay, hard-pan, or, in a few places, bog-iron ore, as well as the lack of gradient.

Geology.—The geological formations in this section are identical with those of the eastern part of the prairie except that the three layers which cover the original Archean rock, viz., the Cretaceous sandstones and limestones, the glacial till, and the subsoil of overworked glacial material gradually become thinner as one travels eastward, and, on approaching the western rim or border of the Great Laurentian Shield, they disappear almost entirely. The latter two layers occur only over limited areas in the Archean country.

Trails.—A network of wagon trails, which can be used throughout the year, covers the high land, while the muskegs have numerous roads which make admirable winter hauling-roads for the lumberman.

Alienated Land. The total land held under title within this transition area comprises about ten townships or about ten per cent of the total area. Part of this land has been "Swamp Land" purchased from the Provincial Government, while the remainder has been homestead land. This land which has passed from the Crown is shown on the accompanying map.