

unsuitable conditions. Red wild cherry and rowan tree are not common. Hazel and mountain maple are found on the better drained slopes where the soil is rich, and alders, willows, and red osier dogwood form almost impenetrable masses along the banks of rivers and brooks.

Forest Types.

These trees and shrubs are grouped according to soil and moisture so as to form distinct forest types, which are repeated all over the area. Among these types are: (1) The black spruce swamp; which is the most common and comprises the largest areas. These swamps are flat, and consequently there is little or no drainage, and the ground is so deeply covered with moss that the moisture is retained for long periods even in dry weather; the forest forming an effectual shade from the sun's rays, and preventing evaporation. These swamps sustain a dense growth of tall, clean, black spruce, ranging up to 40 or 50 feet high; but are usually comparatively small, averaging from 4 inches to 8 inches in diameter. Alders (*A. incana*), are frequently found in the wetter parts of these swamps.

(2) Where the soil is good and the ground rises sufficiently high and has slope enough to afford drainage, white spruce, poplar, canoe-birch, fir, and shrubs such as mountain maple and hazel grow luxuriantly, and form a forest which produces some of the largest trees in the district.

(3) What may be called a distinct forest type, but closely allied to number two, is found along the rivers and lakes. Adjacent to these there is a belt, sometimes of considerable width, which is well drained, and on this is found the largest and best forest in the country. It consists of spruce, poplar, balm of Gilead, canoe-birch, fir, cedar, and sometimes Banksian pine. Close to the water, covering the alluvium deposits, are alders, willows, and other shrubs.

(4) Where sand predominates in the soil there is usually an abundant growth of Banksian pine. This is one of the most beautiful forests in the country, the trees growing tall and straight, without branches on the lower parts. Many of them measure from 10 inches to a foot in diameter, but the majority are not so large. There is usually very little underbrush, so that the forest is open and an unobstructed view can be had for a long distance. In places