

a fifth zone in south western Ontario. These zones may be referred to as the zones of the [1] Douglas Fir, [2] Poplar, [3] White and Red Pine, and [4] Beech.

The zone of the Douglas Fir [*Abies Douglasii*] virtually includes the whole of the lower half of British Columbia, extending from the eastern slopes of the Rocky Mountains at the sources of the Saskatchewan, Bow and Belly Rivers, westward to Vancouver Island, and southwards to Oregon. In this area the timber trees are similar to those in Oregon. The peculiar physical features of the country, embracing successive ranges of high mountains which run the whole length of the Province, and combining in most sections all the characteristics of high peaks, deep valleys and level plateaus, would serve to distribute the flora somewhat generally over this zone, the more northern plants finding their way southward on the mountain sides, and the more southern forms ranging northward through the valleys. The larger proportion of rainfall along the coast and in certain parts of the country has, however, considerable influence in determining the range of many of the species.

The most noticeable feature of the timber region of British Columbia is the distinctive character of its trees as compared with those eastward of the Rocky Mountains. *Populus tremuloides*, *Michx.*, the common aspen, is probably the only tree of eastern range found somewhat generally over the Province. *Abies alba* *Michx.*, the White Spruce, and *Larix Americana*, *Michx.*, the Tamarack, both common in Ontario and Quebec, are found within the north-eastern borders of British Columbia, but do not range much beyond.

The Douglas Fir—the characteristic tree of this zone—often exceeds 8 ft. in diameter and attains a height of 200 to 300 ft. It occurs most abundantly and in best growth near, but not on the coast, for it seems to avoid the exposure of the immediate coast line. At the heads of some of the deep inlets which penetrate the Cascade Mountains it forms extensive forests. The timber from this tree is very valuable and forms an important item of commerce. It is the only wood which as yet is exported from British Columbia on any considerable scale.

Among other important timber trees in British Columbia occurring within this zone, and which will prove of economic importance are, *Thuja gigantea*, *Nutt*, the western *arbor vitæ*, or red cedar—a magnificent tree, often attaining 100 to 150 ft. in height and 10 ft. to 15 ft. in diameter. It is found in abundance near the whole of the coast line of British Columbia, and again inland on the Selkirk and Gold Ranges of mountains. The wood has not yet been largely used.

*Abies mertensiana* *Lindl.*, the western hemlock, which on the coast sometimes attains a height of 200 feet. The wood of this tree, though seldom used, is said to be good.

*Abies Engelmanni* *Parry*, Engelmann's pine, a fine tall tree attaining 3 ft. in diameter. It resembles the black spruce, but curiously enough appears, in the Peace and Athabasca River districts, to run into the white spruce [*Abies alba*] until it is quite undistinguishable from the latter. On the eastern and northern parts of the province the tree is very common.

*Pinus ponderosa* *Douglas*, the yellow or pitch pine—a smaller tree in British Columbia than further south

where it attains a diameter of twelve feet or more. It occurs chiefly in the central valleys and plateaus between the Selkirk and Coast Ranges of mountains, and is commonly used for lumber purposes in these districts.

*Chamaecyparis nuthuensis* *Lamb*—Yellow Cypress—a large tree attaining as much as six feet in diameter, and occurring somewhat abundantly on Vancouver Island and throughout the vicinity of the whole coast on the mainland. This tree has as yet been but little utilized in commerce.

The zone of the *Poplars* may be said in general terms to have its southern limits along the rivers South Saskatchewan, Qu'Appelle and Assiniboine and thence inland eastward *viâ* the north end of Lake Nepigon to Anticosti, in the Gulf of St. Lawrence. The trees named are found south of these limits, but not in the abundance which makes them here characteristic species. The southern limits include, in Manitoba and the North-West Territory, a very considerable tract of prairie country, but, even there, in the river valleys, and among the scattered timber bluffs, the poplar is almost the only tree. South of the Assiniboine and Qu'Appelle, cottonwood, oaks and other trees begin to appear.

This zone practically extends to the northernmost limit of the growth of trees, but includes very few species attaining a sufficient size to be of commercial value. Individually, however, these few species, with the poplar, constitute vast forests. We now know, from recent explorations, something of the northward range of these species in what has hitherto been a *terra incognita*, *viz.*, the country surrounding the west coasts of Hudson Bay. The proposed opening up of railway communication between Dakota, Minnesota and the Canadian northwest on the one hand, and Churchill Harbour in Hudson Bay on the other, thus affording a new and immensely shorter route to Europe for the products of these vast western territories, has awakened an interest in the resources of this part of the country. At the outlet of Lake Winnipeg into the Nelson River, the white spruce has still sometimes a diameter of three feet and even in the lower reaches of the Nelson River is large enough for building purposes; the balsam fir does not here extend northward much beyond Lake Winnipeg and Oxford House on the Hayes River. The white birch ranges as far as the country lying between the Hayes and Nelson Rivers. The tamarac, in company with the poplars, nearly reaches the entrance of the Churchill River, whilst the black spruce is found as far beyond this on Hudson Bay as the Seal River.

The Banksian pine is a familiar tree in this zone and in some places west of Lake Superior is said to be of good quality and sufficiently large to be utilized by the lumbermen.

The white spruce, as found in Manitoba, is considered by builders in Winnipeg, to be fully equal in strength and durability to white pine. The poplar in Manitoba is pronounced by those who have had experience in both kinds, to be better adapted to the various purposes of farm buildings and fencing than the poplar of the eastern provinces. Such differences must be attributed to the climate and perhaps the soil, a result which might naturally be expected when we remember the decided superiority of Manitoba wheat—