

basswood. Aspen, cedar, and jack pine are widely distributed, and spruce and balsam fir are common in certain localities. Among the less widely distributed hardwood species are white birch, elm, hickories, white and black ash, oak, ironwood, butternut, and black walnut.

The pine forests of the Ottawa valley and Algonquin areas have been famous as one of the greatest of Canada's lumbering areas. Elsewhere in the region, forests of mixed type predominate, with a considerable proportion of pure hardwood stands in the more favoured locations towards the south.

The Deciduous Forest Region.—This region in Canada consists of a small northerly intrusion from the great forest of the same type in the United States, and occupies the southwestern portion of what is commonly referred to as the Ontario peninsula. It enjoys very favourable climatic and soil conditions which permit of the growth of a number of tree species not found elsewhere in Canada. Because of its fertile soil, the area is completely settled, and the forests are now represented only by woodlots, parks, and small wooded areas on the lighter soils.

Among the characteristic trees are beech and sugar maple, together with basswood, red maple, and several oaks. Coniferous species are largely represented by scattered specimens of white pine, hemlock, and juniper.

Among the less common hardwoods, which occur singly or in small groups, are hickories, black walnut, chestnut, tulip tree, magnolia, mulberry, sycamore, sassafras, black gum, Kentucky coffee tree, and a number of other species which find their northern limit in this region.

The Boreal Forest Region.—This region covers the greater part of the land area of Canada. It stretches unbroken from the Atlantic coast of Quebec westward to Alaska. Along its southern side it follows the limits of the Great Lakes-St. Lawrence Region, then skirts the open grasslands of the Prairie Provinces, and is terminated in the west in the foothills of the Rocky mountains. To the north it is bounded by the limits of tree growth.

The principal trees of the region are white and black spruce, balsam fir, poplars, white birch, and jack pine. Near the foothills of the Rocky mountains the latter species is replaced by lodgepole pine. In Quebec and Ontario, and as far west as a line running from lake Winnipeg to lake Athabaska in the Prairie Provinces, the region is, for the most part, underlain by granitic rocks of the Precambrian formations known as the Canadian Shield. Within the area described there are extensive tracts of good soil, formed from glacial or sedimentary deposits, but a larger portion of the region is characterized by shallow soils. Very considerable areas of bare rock testify to the disastrous results of forest fires followed by erosion. The forests of this part of the region are mainly coniferous, with black spruce and balsam fir as dominants, and are valuable chiefly for pulpwood.

West of lake Winnipeg the same tree species are in evidence but in different proportions. Here the soil is deep and relatively fertile, and the characteristic forest is a mixture of poplar and white spruce.

The climate of the region is severe, and precipitation ordinarily varies from 15 to 30 inches annually, although these figures are exceeded in eastern Quebec.

The Northern Transition Section.—This area is a part of the Boreal Region, but is described separately because none of its forests are of commercial value although of considerable local economic value. It represents a transition from the merchantable forests of the south to the treeless wastes of the far north. White and black spruce, larch, and birch are the principal tree species, and these are