

River valley and the southern part of Labrador are parts of the Laurentian Shield already described. The climate, though tempered by the presence of lakes and the gulf of St. Lawrence, is mostly severe and variable. Around the Lower Lakes and in the St. Lawrence valley where the rock is sedimentary and of Palæozoic age, soil and climate improve and the land is essentially agricultural. Precipitation is ample and the climate temperate, becoming decidedly mild toward the southwest. The Maritime Provinces, sloping generally toward the Atlantic are also varied in topography and geology. The temperature is modified by the presence of the ocean and the precipitation is above the average for Canada.

There are a number of distinctive belts of tree growth in the Eastern forests.

The Carolinian Zone is confined to the north shore of lake Erie and the western part of lake Ontario. It forms the northern fringe of a similar large area in the Central Eastern States. In Ontario it is characterized by such species as tulip, sassafras, black gum, etc., not found elsewhere in Canada.

The adjoining hardwood belt, about 70 miles wide, extends across southern Ontario and Quebec from lake Huron to the Eastern Townships. Here the original forest was composed predominantly of such broad-leaved species as maple, elm, yellow birch, beech, basswood, oak and hickory with an admixture of conifers, including red and white pine, hemlock, spruce, balsam, cedar and tamarack. The Mixed Hardwood and Softwood Belt to the north extends from the eastern end of lake Superior to the Saguenay river in the St. Lawrence valley. It is characterized by the prevalence of white and red pine, hemlock, yellow birch and maple, though spruce and balsam fir form a considerable proportion of the stand. Between this belt and the eastern half of the Northern Forest Belt, already described on p. 281, there is the Transition Belt in which the white and red pine persist, but the hemlock, yellow birch and maple are absent. Since the beginning of the lumbering industry these two belts, *viz.*, the Mixed Hardwood and Softwood Belt and the Transition Belt, extending roughly to the height of land between the St. Lawrence and Hudson's Bay waters have been the centre of the most extensive exploitation in Eastern Canada. Forest types vary with soil and other conditions but, generally speaking, white pine occupies the better situations and reaches its highest development in this region, with red pine as an associate. In heavier soils toward the south, spruce, hemlock and the tolerant hardwoods form an important constituent.

Due to the exclusive cutting of white and red pine in the past these species have to a considerable extent been replaced by spruce, balsam, jack pine and the hardwoods, the pulpwood areas composed of spruce and balsam fir being the most important types at present. Jack pine has taken almost complete possession of many burned-over areas on higher soils. Aspen and paper birch are also present but mostly as temporary types. With the gradual disappearance, first of hemlock, then of the tolerant hardwoods and finally white and red pine, this forest belt gradually merges into the transcontinental Northern Forest Belt.

The Acadian Belt in the Maritime Provinces and southeastern Quebec carries a growth of similar type to that of the New England States where red spruce is a characteristic species with white spruce, black spruce, balsam fir, white and red pine, eastern cedar, hemlock and the tolerant hardwoods on suitable sites. The mixed hardwood and softwood type in this belt contains quantities of yellow birch, maple and beech.