

beech. Of the coniferous trees white pine, red pine, hemlock, and white cedar are the most important. The underbrush, although very variable and made up of a great number of species, is generally rather scanty and becomes conspicuous, as a component of the forest, only along the borders of the woods or where the woods are open. Among the most typical shrubs may be mentioned service berry, moosewood, purple flowering raspberry, sumach, poison ivy, and arrow-woods.

As the rainfall is abundant throughout the hardwood forest zone, the herbaceous vegetation is rich, in species as well as in individuals, everywhere where light and soil conditions are favourable. In the woods proper it is rather insignificant after the foliage of the trees is fully developed. In the spring, however, it is very luxuriant and, especially where the soil is rich and deep, there is a magnificent display of beautifully coloured and showy flowers, for instance trillium, bellwort, dog's-tooth violet, showy orchis, jack-in-the-pulpit, spring beauty, violets (blue, yellow and white forms), hepatica, dutchman's breeches, squirrel corn, bloodroot, pepper-root, barren strawberry, flowering wintergreen, blue phlox, etc. Others, less conspicuous but characteristic of the hardwood forest's spring flora, are species of sedges, wild ginger, blue cohosh, mitrewort, star flower, showy lady's slipper, etc.

During the summer the herbaceous vegetation is chiefly confined to the borders of the woods, clearings, and other places where the growth is not suppressed or kept back on account of too much shade. Characteristic of the bogs are, among others, various species of orchids and the pitcher-plant.

The autumn flowers are chiefly members of the composite family, with asters, golden rods, and joe-pye in greatest profusion.

Very characteristic of the hardwood forest zone is the autumnal colouring of the leaves of trees, shrubs, and herbaceous plants. This autumnal colouring lasts a comparatively long time, from about the first week of September to the second week in October, dependent on the dryness of the season. During that period a splendid display of colours is exhibited, especially in open, mixed woods where the underbrush is well developed. Shades of yellow, golden bronze, red and scarlet are mixed in a gorgeous symphony of colours, generally modulated most marvellously by the sombre, deep, dark or bluish green of the conifers which are dotted among the deciduous trees. No such wealth of autumnal colour is met with in any of the other zones.

The Carolinian Zone.—This zone is confined to a small tract of land in southern Ontario, bounded to the south by lake Erie and to the north by a line running approximately from the northern shore of lake Ontario to Windsor. Its flora is most typically developed on the Niagara peninsula and on the shore of lake Erie. In general physiognomy it is rather similar to the hardwood forest flora just described, but it differs greatly as far as characteristic species, and even genera, are concerned. It is decidedly southern as to species, and exhibits a large number of plants, woody as well as herbaceous, which occur nowhere else in Canada.