

## FLORA OF CANADA.

zone. As its name indicates, it is characterized chiefly by deciduous trees, the principal ones being: Basswood (*Tilia americana*), Sugar Maple (*Acer Saccharum*), Red Maple (*Acer rubrum*), Black Ash (*Fraxinus nigra*), White Ash (*Fraxinus americana*), White Elm (*Ulmus americana*), Yellow Birch (*Betula lutea*), Red Oak (*Quercus rubra*), Burr Oak (*Quercus macrocarpa*), Beech (*Fagus grandifolia*). Of the coniferous trees, the White Pine (*Pinus Strobus*), the Red Pine (*P. resinosa*), the Hemlock (*Tsuga canadensis*), and the White Cedar (*Thuja occidentalis*), are the most important.

The underbrush, though 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 its borders or where the woods are very open. Among the most typical shrubs may be mentioned: Service Berry (*Amelanchier spicata*), Moosewood (*Dirca palustris*), Purple Flowering Raspberry (*Rubus odoratus*), Sumach (*Rhus typhina*), Poison Ivy (*Rhus Toxicodendron*), and Arrow-woods (*Viburnum alni-folium*, *V. acerifolium*, *V. cassinoides*).

As the rainfall is abundant throughout the hardwood forest zone, the herbaceous vegetation is rich, in both species and individuals, everywhere where light and soil conditions permit. 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 forms, for instance: Trillium (*Trillium grandiflorum*, *T. erectum*, *T. undulatum*), Bellwort (*Uvularia perfoliata*), Dog's-Tooth Violet (*Erythronium americanum*), Showy Orchis (*Orchis spectabilis*), Jack-in-the-Pulpit (*Arisæma triphyllum*), Spring Beauty (*Claytonia caroliniana*), Violets (*Viola*, blue, white, and yellow forms), Hepatica (*Hepatica triloba*, *H. acutiloba*), Dutchman's Breeches (*Dicentra Cucullaria*), Squirrel Corn (*Dicentra canadensis*), Bloodroot (*Sanguinaria canadensis*), Pepper-root (*Dentaria diphylla*), Barren Strawberry (*Waldsteinia fragarioides*), Flowering Winter-green (*Polygala paucifolia*), Blue Phlox (*Phlox divaricata*), etc. Others, less conspicuous, but characteristic of the hard-wood spring flora, are species of Sedges (*Carex*), Wild Ginger (*Asarum canadense*), Blue Cohosh (*Caulophyllum thalictroides*), False Mitrewort (*Tiarella cordifolia*), Mitrewort (*Mitella diphylla*), Star Flower (*Trientalis americana*) and Showy Lady's Slipper (*Cypripedium hirsutum*).

During the summer the herbaceous vegetation is chiefly confined to borders of woods, clearings and other places where growth is not suppressed or kept back on account of too much shade. It is rather inconspicuous and poor except in moist or wet situations. On moist and low ground occur: *Habenaria psychodes*, *Gentiana crinita*, *Asclepias incarnata*, *Physostegia virginiana*, *Chelone glabra*, *Lobelia cardinalis*, etc., whilst *Pogonia ophioglossoides*, *Calopogon pulchellus*, *Arethusa bulbosa*, *Sarracenia purpurea* and others adorn the bogs and swamps.

The autumn flowers are chiefly composites with Asters, Golden Rods (*Solidago*) and Joe-Pye (*Eupatorium*) in the greatest profusion.

Very characteristic of the zone is the autumnal colouring of the leaves of trees, shrubs and herbaceous plants. This autumnal colouring