

their home east of the Great Lakes but which occur rarely, if at all, between lake Huron and the Manitoba border. Among these plants may be mentioned nettle tree, basswood, wild plum, hawthorn, Virginia creeper, moonseed, bloodroot, columbine, hog peanut, tick trefoil, prickly cucumber, species of gentian, lousewort, Indian paint-brush, ox-eye, cone-flower, etc.

The prairie proper of the first prairie steppe is confined chiefly to what is known as the Red River valley, i.e., the low, flat plains south and west of Winnipeg. In this region trees are met with only in narrow fringes along the rivers, oak, elm, poplars, and Manitoba maple being the most abundant. Away from the borders of streams the prairie is treeless. It is covered with an abundance of herbaceous plants, the most widely represented families being the composite family (asters, golden rods, etc.), the rose family, the pea family, the grass family, and the sedge family, but the species representing them can hardly be said to be characteristic of the zone, as practically all of them are found in suitable localities farther west.

Second Prairie Steppe.—This extends westward to a line running approximately from the international boundary at longitude $103^{\circ} 30'$ in a northwesterly direction to Battleford.

The flora is rather diversified and several very different plant associations are met with. In the north, where the prairie and the sub-arctic forest meet, the flora is composed of species characteristic of both zones, as is also the flora of the northern parts of the third prairie steppe. In the southwestern part of the second prairie steppe, i.e., the country southwest of Moose mountain, in Saskatchewan, the vegetation is in many respects similar to that of the drier sections of the third prairie steppe. The grass is very short and the vegetation in general of a type adapted to regions with a scant precipitation. In places, large sandy tracts exist which are covered with a profusion of cactus, and in others there is no vegetation except that peculiar to arid land. Extending from the hills forming the boundary between the first and second prairie steppes there is much broken or park-like country. This is also met with in the Qu'Appelle River valley and in other parts of the zone. Poplar and oaks are the chief trees of the bluffs and the herbaceous vegetation, as may be expected, is made up of a mixture of prairie and woodland forms.

The major part of the second prairie steppe is true prairie, with no trees except in the river valleys. Shrubs occur, generally in low thickets or copses, and very frequently in small clumps composed of a single species. On the exposed prairie, where their growth always is stunted, occur: snowberry, silver berry, buffalo berry, saskatoon, roses, and others. In damp situations meadow sweet is met with, and in wet places, such as the borders of ponds and marshes, willows are abundant. The herbaceous vegetation varies somewhat with soil conditions but, taking the second prairie steppe as a whole, the numerous members of the pea family, which are met with everywhere, are perhaps the most characteristic flowering plants.