

Of the trees occurring in the Prairie Region, the Lance-leaved Cottonwood (*Populus acuminata*) and Narrow-leaved Cottonwood (*Populus angustifolia*) do not occur naturally outside that area. The Manitoba Maple (*Acer Negundo*), while characteristic of the prairie, ranges for some distance beyond the Lake of the Woods into the Eastern Region. Some characteristic eastern species such as *Ulmus americana* and *Quercus macrocarpa* extend for a considerable distance into the prairie, while a typical western species, the Lodgepole Pine (*Pinus contorta*) is found on the western part of the Cypress hills, in Alberta.

The absence of trees on the true prairie has been the subject of various explanations. One of these is the prevalence of grass fires during summer which would tend to destroy all woody types of vegetation. Another possible cause is a period of drought which would tend to prevent the successful establishment of seedling trees. A third and much more probable cause was the former prevalence of large herds of buffalo. Only herbaceous types of vegetation could be expected to survive successfully the constant cropping of grazing animals.

There are about 16 species of shrubs confined to the Prairie Region, some of which have already been mentioned. Among the others are Buffalo Currant (*Ribes aureum*), Prairie Cherry (*Prunus Vesseyi*), and Skunk-bush (*Rhus trilobata*).

Of the numerous herbs whose distribution is limited to the prairie, only a few can be mentioned here. Some of these are Grama Grass (*Bouteloua oligostachya*), Prairie Violet (*Viola pedatifida*), Big-seed Dock (*Rumex venosus*), Prairie Turnip (*Psoralea esculanta*), Scarlet Gaura (*Gaura coccinea*), Prairie Lily (*Mentzelia decapetala*), Oval-leaved Milkweed (*Asclepias ovalifolia*), Western Ragweed (*Ambrosia psilostachya*).

Macoun and Malte²³ divide this region into three subdivisions or prairie steppes with their characteristic floral elements, the more important species in each subdivision being indicated.

A more detailed account of the distribution of plants in Manitoba will be found in the Check List of Jackson, Higham, and Groh⁴⁷ in which 42 species of ferns and allied plants, 12 species of conifers, 274 species of monocotyledons and 702 species of dicotyledons are recorded.

For Saskatchewan, Fraser and Russell⁴⁸ have indicated the distribution of 38 species of ferns and their allies, 9 species of conifers, 335 species of monocotyledons and 1,013 species of dicotyledons. Included in the list are 11 species partial to saline soil and also found on the sea coast which would indicate that much of the prairie was in comparatively recent times under the sea and that the coast-line was formerly far removed from its present limits.

No separate list appears to have been made of the species occurring in Alberta but the papers of Lewis, Dowding, and Moss,^{49, 50, 51} although mainly ecological in nature, include the names of many species not only of vascular plants but also of some mosses and lichens as well as fresh-water algæ.

Western Region.

This region, extending from the Rocky mountains to the Pacific coast, presents a greater diversity of topography and climate than any of the other regions. The topography is described in some detail at pp. 6 to 8. There are numerous mountain ranges, on many of the higher altitudes of which glaciers and perpetual snow are present, while between the mountains are deep trenches or river valleys where the climate is moderate. On the western side of the Coast range rainfall is very