

FLORA OF CANADA.

Richmond gulf to the mouth of George river on the eastern shore of Ungava bay, and from there in a southeasterly direction along the coast of Labrador to Hamilton inlet.

The arctic flora of Canada is very closely related to that of Europe, especially the Scandinavian, a very great proportion of the arctic Canadian plants being also common in Lapland and arctic Russia. A number of species occurring chiefly in the most western parts of arctic Canada are of Asiatic relationship, and only very few are of American origin. Among these may be mentioned *Douglasia arctica*, *Cardamine digitata*, and *Pleuropogon Sabini*.

With regard to general characteristics, the arctic flora of Canada is quite similar to the arctic or "circumpolar" flora in general. It is composed almost exclusively of perennial plants, which exhibit those well known features with regard to biology and anatomical structure which the arctic flora has in common with the flora of high alpine regions. In the more northern parts, where the ground is physiologically more or less dry, or where it is rocky, the growth is often very compact and includes a great number of plants of the so-called "bunch type." Suffice it to mention *Silene acaulis*, *Papaver radiculatum*, *Potentilla nivea*, *Saxifraga tricuspidata*, *S. oppositifolia*, *Armeria sibirica*, *Androsace Chamæjasme*, *Melandrium apetalum*, *Kobresia Bellardii*, *Carex rupestris*, *C. membranopacta*, *C. nardina*, *Poa glauca*, *Festuca ovina* var. *brevifolia*, etc. Similar growth is also encountered, though less commonly, on the tundra, i.e., the more southerly and physiologically wetter part of the arctic region. Among the tundra plants of the bunch type may be mentioned: *Diapensia lapponica*, *Arenaria macrocarpa*, *A. arctica*. Compactness of growth is also displayed by a number of plants which, though not growing in "bunches" form dense and often very extensive mats. To this type belong *Cerastium alpinum*, *Ranunculus hyperboreus*, *Sibbaldia procumbens*, *Dryas integrifolia*, *Loiseleuria procumbens*, *Cassiope tetragona*, etc. Among the more conspicuous arctic herbaceous plants which grow neither in mats nor in bunches may be mentioned: *Dupontia Fischeri*, *Eriophorum Scheuchzeri*, *E. angustifolium*, *Spiranthes Romanzoffiana*, *Habenaria hyperborea*, *Oxyria digyna*, *Polygonum viviparum*, *Ranunculus nivalis*, *R. affinis*, *Parrya arctica*, *Eutrema Edwardsii*, *Saxifraga flagellaris*, *S. hieracifolia*, *Pyrola grandiflora*, *Primula sibirica*, *Pedicularis flammea*, *Arnica alpina*, *Saussurea alpina*, *Chrysanthemum integrifolium*.

As indicated above, the Arctic zone has no real trees. The woody plants, characteristic to the zone in general, are either prostrate forms, such as *Salix arctica* and its varieties, *S. orbicularis*, *S. anglorum*, or of a more shrubby appearance, such as *Betula nana*, *B. glandulosa*, and *Salix Richardsonii*. On the tundra, the woody plants are chiefly of the ericaceous family, the principal ones being *Ledum palustre*, *Rhododendron lapponicum*, *Vaccinium uliginosum*, *V. Oxycoccus*, *V. Vitis-Idæa* var. *pumilum*, *Arctostaphylos alpina*. The berries of the two latter species, with those of *Empetrum nigrum*, form the chief food of the migrating geese in the spring of the year.

Sub-arctic Forest Zone.—The sub-arctic or so called coniferous forest extends in the east from the Arctic zone southward to a line running from