

lium, wild lily-of-the-valley, yellow pond lily, fringe-cup, false mitrewort, alum root, bleeding heart, goat's beard, twinflower and aster.

The major part of Vancouver island has a typical Coast Range flora. The southeastern section, however, has a vegetation of a quite different type. There, the growth is influenced by the comparatively scant precipitation, with little rain between spring and fall. As a result the spring vegetation is much more conspicuous than the summer and fall vegetation, especially on open and rocky land. In addition, the section is characterized by a number of species which are more or less of a Californian type and which occur nowhere else in Canada. Among the characteristic plants of this section of the island may be mentioned several species of brome grasses, camas, wild hyacinth, blue-eyed grass, spring-beauty, lupins, bird-foot clover, tall vetch, marsh hollyhock, godetia, arbutus or madrona, gilia, grove-lover, paint-brush, etc.

Dry Belts of British Columbia.—A few words may finally be said about the most important dry belts of British Columbia, including the Okanagan and the Kamloops districts. These regions, owing to the scant precipitation and to the nature of the soil, have a flora which strangely contrasts with that of the other parts of the British Columbia mainland.

In the dry belts two floristic subdivisions may be recognized, which, however, run more or less into each other and for this reason will not be dealt with separately. One subdivision is characterized by so-called bunch grasses, of which "wild rye" is the most conspicuous species, and is more or less destitute of forest-forming trees. The other floristic subdivision of the dry belts is more densely wooded, the characteristic tree of the forest being the yellow pine. On the whole, the dry belts may be said to be park-like in general character, with a rather desert-like ground vegetation.

V.—FAUNAS OF CANADA.¹

Historical.—Whether the fauna of the western hemisphere was derived from that of the eastern, or *vice versa*, as is contended by various authorities, there is a close relationship between them. Geological evidence shows that in previous ages types now found in but one of the great continental circumpolar divisions were common to both. Old and now submerged land connections between the continents have been postulated both from zoological and geological evidence, and a more or less complete continuity of land throughout the northern hemisphere, in former times, must be acknowledged before present American biotal conditions can be thoroughly understood. That this connection was in the far north and in what is now arctic or sub-arctic climate did not prohibit a continual interchange of warmth-loving species, for the presence of coal in very high latitudes points to milder if not tropical or sub-tropical conditions where now we find perpetual snow and ice. One must, therefore, conceive of a pre-glacial time when tree-ferns and other luxuriant coal-producing forest types occupied extreme northern lands, and such animals as elephants, horses and other warmth-loving species could spread from one continent to the other.

This intercontinental connection must have been made and broken numbers of times by the recurrence of glacial periods which covered this country with ice

¹Abridged from an article contributed to the 1921 Year Book by P. A. Taverner, Department of Mines, Ottawa.