

arctic regions, a fact which may be satisfactorily explained, in the words of Darwin, as a result of conditions caused by the glacial period, as follows: "As the warmth returned (after the glaciation had reached its height) the arctic forms would retreat northward, closely followed up in their retreat by the productions of the more temperate regions. And as the snow melted from the bases of mountains, the arctic forms would seize on the cleared and thawed ground, always ascending higher and higher, as the warmth increased, whilst their brethren were pursuing their northern journey. Hence, when the warmth had fully returned the same arctic species, which had lately lived in a body together in the lowlands . . . would be left isolated on distant mountain summits (having been exterminated on all lesser heights) and in the arctic regions . . ."

The Selkirk Mountains.—While the Rockies may be looked upon as a chain of individual mountains, the Selkirk range has more the character of a high-level plateau from which the peaks rise. As a result there are real alpine meadows in the Selkirks whereas, in the Rockies, similar plant formations are generally met with on steep slopes. The differences in the vegetation of the Rockies and the Selkirks above the tree line are conspicuous and are due largely to differences in the amount of precipitation, the Selkirks being favoured with a much more abundant moisture supply. For this reason the alpine meadow plant associations of the Selkirks extend almost to the snow line and, for the same reason, a number of high-alpine plants, which in the Rockies are characteristic of the bare peaks above the grassy slopes, are not met with at all in the Selkirks.

The Selkirk forest differs from that of the Rocky mountains with regard to composition, as far as the trees are concerned, the principal species being cedar, Douglas fir, hemlock, and Engelmann's spruce. The undergrowth is, on the mountains proper, quite similar to that of the Rocky mountain forest and, although more luxuriant, is not represented by many species.

In the lower valleys, however, and on lower levels where the forest is more open in character, the shrubby as well as the herbaceous undergrowth is very different. Not only is it luxuriantly developed, but the species of which it is composed are of a different type. The Rocky mountain flora is disappearing, its place being taken to such an extent by Pacific coast species that the casual observer will find it rather difficult to detect any conspicuous difference between the flora of the Selkirk valleys and that of the coniferous forest of the Pacific coast.

The Coast Mountains.—Although having a large number of plant species in common with the Selkirks, the Coast range must be considered a distinct botanical zone, as many species occur there which are confined to the Pacific coast. The coast range is also the home of several species which are very local in their occurrence and which, as far as is known at present, do not grow anywhere else.