

strip of sea coast in southern British Columbia and marks the limit of extensive cultivation.

The Boreal region is divided into the Canadian, Hudsonian, and the Arctic zones. The Canadian includes the remainder of the forested land north of the Transition and is mostly coniferous, continuing across the continent to the northern limit of general cultivation. The Hudsonian zone is in the more northern country of small shrubs or stunted tree growth unsuited to agriculture, and the Arctic zone extends across the barren grounds north to the pole.

These life zones based upon temperature and roughly following the lines of latitude, are, however, deflected from their natural east and west sweep by varying local conditions, the vicinity of cold or warm ocean currents, the presence of large bodies of water, elevation above the sea, the prevalence of cold or warm winds or mountain barriers to the same, and other causes. Thus instead of being even belts they are irregular and only roughly follow parallels of latitude.

Elevation is an important factor in the distribution of life depending upon temperature. In the tropics in ascending a high mountain, representatives of each zone between that of the surrounding lowland and the Arctic of the snow-covered peak, may be met with and appropriate assemblages of species will be found inhabiting each. The juncture of Arctic and Hudsonian zones at the straits of Belle Isle, in the same latitude as Lands End in England, illustrates the enormous effect of the cold Arctic current, coming down from Davis strait, in contrast to the influence of the warm Gulf stream that dies against the English shores.

We can also observe minor groupings east and west based upon conditions other than temperature, these determining factors being mostly variations of humidity. Thus the life of the eastern woodlands is plainly different from that of the more arid plains of the prairie provinces and both are strikingly different from that of the moist Pacific slope.

Taking the eastern forms as typical in the ordinary acceptance of the word, comparable birds of the prairie will be found to be slightly smaller and considerably paler in coloration, whereas on the humid Pacific coast they will be larger and much darker in colour. Through these influences we, therefore, find in the west many subspecies of eastern forms. A comparatively few species range unmodified across the continent, many are represented east and west by two or more subspecies showing greater or less differentiation, and in other cases they are replaced by closely allied species or not represented at all.

In noting these faunal divisions, however, it must be remembered that as far as birds are concerned, these associations have to be based entirely upon breeding individuals. Birds travel so widely and along so many devious routes in their migration, that they may pass through several faunal areas spring and autumn though breeding in only one. Therefore, in determining the faunal zone to which any given area should be referred, such transients must be disregarded.

Though the distributions given under the specific headings following are rather vague and indefinite, many tend to follow similar general lines. Thus some are given as "the lower Great Lakes region"; these are probably Upper Austral forms. "Southern Ontario and Quebec" refers to Transition species, whereas "beyond dense settlement or to the limit of cultivation" would naturally be species of the Canadian zone.