

of James bay, thence in a wavy curve to Great Slave lake where it drops south suddenly to a latitude about on line with the lower point of the Alaska Pan-handle, and thence to near the coast. It thus includes the southern Ungava peninsula, a narrow belt extending northwest from James bay, the Yukon, northern British Columbia and southern Alaska. It is penetrated from the north by the Arctic zone which persists on the mountains of the Yukon and from the south by the Canadian zone which follows up the valleys of the Mackenzie and Peace rivers. It is shut off from the sea on the Pacific side by the Alaska Pan-handle which has an intrusive Canadian fauna. On the other hand, it works down the Rocky mountains in a narrow band and scattered isolated spots across the United States boundary. This zone can be considered more as a transition between the Canadian and Arctic zones than a primary division itself. It contains species whose centres of abundance are on either hand and a few peculiar to it. Musk oxen, caribou and ptarmigan range into it in winter from the north, and it forms the extreme northern distribution of woodland caribou and moose. Its most characteristic birds are the rough-legged hawk, great-grey owl, northern shrike, pine grosbeak, white-winged cross-bill and fox sparrow.

The Canadian zone occupies the greater area of Canada and can be roughly defined as the coniferous forest belt. It includes practically all the remainder of the Dominion except the inner shores of the Nova Scotia peninsula, southern Ontario and Quebec in a narrow strip from about Montreal to just below Georgian bay on lake Huron, the prairies, a small irregular fringe along the Pacific coast opposite Vancouver island and a few mountain valleys penetrating the southern boundary of British Columbia. It penetrates the Hudsonian zone on the north along the valleys of the Mackenzie and Peace rivers and runs up most of the Alaska Pan-handle. The characteristic life is more numerous than in the preceding zones and includes the moose, woodland caribou, lynx, marten, porcupine, varying hare, white-throated sparrow, numerous warblers, olive-backed thrush, three-toed woodpeckers, pileated woodpecker, spruce grouse and Canada jay.

The Transition zone lies just along the southern border, including most of both shores of the bay of Fundy, a narrow belt following the north shores of lakes Ontario and Erie, all of the western prairies and intrusive valleys into the south of British Columbia and the shores of the strait of Georgia. The name Transition well describes its fauna. It contains comparatively few distinctive species, but in it many northern and southern forms meet. Its southern limit lies in the United States below, striking almost squarely across the continent on a line with the lower points of the Great Lakes, with excursions southward along the mountain ranges east and west and penetrated by extensions of the Upper Austral fauna along warm lowland valleys in the west. It forms the northern limit of range of the cottontail and jack-rabbits and the American elk, and is just touched upon by the varying hare from the north; the common mole of the south meets the star-nosed and Brewer's mole of the north and the wild cat partially replaces the Canada lynx. Amongst birds, the wild turkey, bob-white, two cuckoos, towhee, wood thrush and yellow-throated vireo are here at the northern limit of their ranges, and the Baltimore oriole, bluebird, catbird and bobolink overlap the solitary vireo and Wilson's thrush.

The Upper Austral zone in Canada is small in area, crossing our borders in a narrow shore belt along lake Erie, extending to the south side of lake Ontario and including the Niagara peninsula. It extends south as far as the northern borders