

The only deciduous trees of consequence are white birch, aspen, and balsam poplar. The forests are not continuous, covering but a limited part of the northern part of this zone, alternating with bare or lichen-covered rocks, sandy or grassy plains, and wet, mossy bogs or muskegs. Berry-producing shrubs are abundant, including blueberries, rock cranberries, raspberries, cloudberry, crowberries, and bearberries. Many species which occur in the northern tundra reach their greatest perfection in the bogs of the Hudsonian Zone, notably Labrador tea, *Kalmia*, lousewort, cotton-grass, and sedge species. The flora of this zone is remarkably uniform throughout and is transitional in character, nearly every one of the species occurring either in the Arctic or Canadian Zones.

Virtually all the Arctic birds occur more or less regularly in the Hudsonian Zone, being met by the northernmost front of the Canadian Zone species, the willow and rock ptarmigan overlapping the range of the spruce grouse (*Canachites canadensis*) and sharp-tailed grouse (*Pediæcetes phasianellus*), and the Lapland longspur meeting the tree sparrow (*Spizella arborea*) and savannah sparrow (*Passerculus sandwichensis*). The mammalian fauna consists of a similar mixture of Arctic and woodland species, the musk-ox reaching its southern limit and the small Barren Ground caribou meeting the larger woodland caribou (*Rangifer caribou*) at its northern limit.

Canadian Zone.—South of the Hudsonian Zone is the Canadian Zone, the most heavily and uniformly forested portion of Canada, dominated by white pine, red pine, hemlock, balsam fir, tamarack, and white cedar. North of the prairies the Banksian pine or "jackpine" is an important tree. West of the Rocky mountains the eastern species are represented by western white pine, western hemlock, Douglas fir, western larch, and Engelmann spruce. Various species of poplar, birch, elm, and ash are found in suitable localities of the Canadian Zone.

The number of bird species is greater than in the more northern zones, though perhaps the number of individuals is not larger on a given area. Contrary to widespread popular belief, a wilderness of heavy coniferous forest is often strikingly lacking in bird life. The commoner forms are numerous species of warblers (*Dendroica*, etc.), the Canada bird or white-throated sparrow (*Zonotrichia albicollis*), olive-backed and hermit thrushes (*Hylocichla* species), Canada jay (*Perisoreus canadensis*), three-toed woodpeckers (*Picoides tridactylus* and *P. arcticus*). Mammals may not be strikingly abundant as the coniferous forests are not well supplied with undergrowth for grazing and browsing. The most important mammals are the moose (*Alces americana*), woodland caribou (*Rangifer caribou*), lynx (*Lynx canadensis*), marten (*Martes americana*), fisher (*M. pennanti*), porcupine (*Erethizon dorsatum* in the east and *E. epixanthum* in the west), snowshoe rabbit (*Lepus americanus*), and red squirrels, chipmunks, native mice and voles of many species which form the principal food supply of the fur-bearing mammals. Some races of all these animals also penetrate parts of the Hudsonian Zone and become rare in the scattered forests farther north.

Transition Zone.—The most important agricultural districts of Canada occupy the northern part of the Austral Region, referred to faunally as the Transition Zone; the more wooded portion east of the 100th meridian being commonly called the Alleghanian Zone, and the Western Prairie section, the Campestrian Zone. While parts of this zone have considerable areas of coniferous forest (white pine, red pine, hemlock, and white cedar), the trees are chiefly deciduous—sugar maple and red maple, red oak and burr oak, white elm, black ash, and white ash. The underbrush is variable and composed of many species. Herbaceous plants are abundant