

IMPORTANCE OF CANADA'S BOREAL FOREST TO LANDBIRDS

Executive Summary

The boreal forest stretches across a vast northern expanse of North America, from Alaska in the west to Newfoundland & Labrador in the east, with most of the forest in Canada. This forest is of immense global importance to landbirds, especially during the spring and summer when billions of landbirds rely on boreal nesting grounds. Below we outline broad patterns in landbird population sizes, trends and links to wintering grounds to illustrate just how important Canada's portion of the boreal forest is, not just within the boreal itself, but also across North America, the Western Hemisphere and globally.

For the purpose of this report, Canada's portion of the boreal forest is defined as the area covered by four boreal and taiga Bird Conservation Regions (BCRs). Together these BCRs encompass 5.2 million km² of land (2 million square miles).

How many landbirds of how many species are produced in Canada's boreal forest?

There are 186 species of landbirds in 35 families that regularly occur in the boreal regions of Canada. An additional 41 or more species occur accidentally or in very small numbers at the edges of their range.

An estimated 1 to 3 billion landbirds breed in the boreal regions of Canada, depending on data source and method of calculation. This is about 60% of the landbirds in all of Canada, and close to 30% of landbirds in Canada and the United States combined. Sparrows, warblers and thrushes account for more than half of all boreal landbirds.

Boreal landbirds are highly migratory - approximately 93% of them leave the boreal each fall and almost all of those leave Canada for the winter. That translates to about 3 to 5 billion birds migrating south each fall. Over half a billion warblers of 27 species are estimated to migrate out of the boreal, as well as close to a billion sparrows of 25 species.

Canada's boreal holds in excess of 50% of the global population for approximately 40 species of landbirds during the breeding season. An additional 6 species have most of their western hemisphere population in Canada's boreal forest. And additional species have very high proportions of Canadian populations breeding in the boreal.

In winter, boreal landbirds are scattered across much of the Western Hemisphere. The United States is the biggest beneficiary of the boreal, since almost all boreal migrants spend at least part of the non-breeding season there. Over one billion boreal migrants remain to winter in the U.S., with highest densities in the southern states. Dark-eyed Juncos and White-throated Sparrows are boreal migrants that are particularly abundant in winter in the United States. The highest diversity of boreal

birds winters in Mexico. Many other countries in Central America, northern South America and the West Indies provide important wintering grounds for boreal migrants. Use of these wintering grounds differs dramatically from one family of birds to another.

How significant are the landbirds produced in the boreal forest in the context of the total avifauna of Canada, North America and the Western Hemisphere?

Based on standardized bird surveys, boreal migrant landbirds comprise an estimated 10% of landbirds in the United States during winter (Christmas Bird Counts), and 17 and 31% of birds during fall and spring migration respectively (Gulf Coast Bird Observatory network). At winter bird feeders, 17% of landbirds across the United States are estimated to be migrants from Canada's boreal. These proportions vary significantly among parts of the United States, for example reaching an estimated 32% of birds in Georgia in winter, and 37 and 48% of birds in Georgia during fall and spring migration respectively. Blackbirds, sparrows and thrushes are the dominant families of boreal landbirds during winter, whereas warblers are dominant during migration, particularly in spring. Dark-eyed Juncos are by far the dominant boreal migrant at winter feeders in the United States, and are one of the top feeder birds in most U.S. states.

Which boreal landbird species are experiencing significant declines?

At least 40 species of landbirds are currently experiencing population declines in the boreal forest and range-wide, according to long-term Breeding Bird Survey trends. These species come from a wide variety of families and habitats and employ an equally wide array of foraging habits and migration strategies. The Rusty Blackbird which breeds largely within the boreal forest has undergone one of the steepest declines among birds surveyed by the Breeding Bird Survey.

Which species or species group(s) best illustrate the importance of the boreal to landbirds?

Species or species groups that have a high proportion of their global population in the boreal, migrate extensively to other countries, are colourful, charismatic or otherwise frequently encountered by the birding public, or are of conservation concern because of population declines, are all likely to be effective in illustrating the importance of the boreal to landbirds.

Warblers in particular stand out as a group of charismatic birds highly reliant on the boreal for breeding, providing links through the United States to neotropical wintering grounds, and sought after by the birding public. Dark-eyed Juncos and other sparrows and finches are abundant boreal birds that attract considerable attention at bird feeders across North America. Sparrows and other short-distance migrants provide important links between the boreal and thousands of birders who

participate in Christmas Bird Counts each year. And the variety of landbirds undergoing population declines draws attention to the conservation issues of the boreal forest.

Band recovery data illustrate broad patterns of direct links between the boreal forest and sites further south, mostly within the United States. Christmas Bird Count maps are provided for several boreal species to illustrate how they concentrate on wintering grounds in the United States.

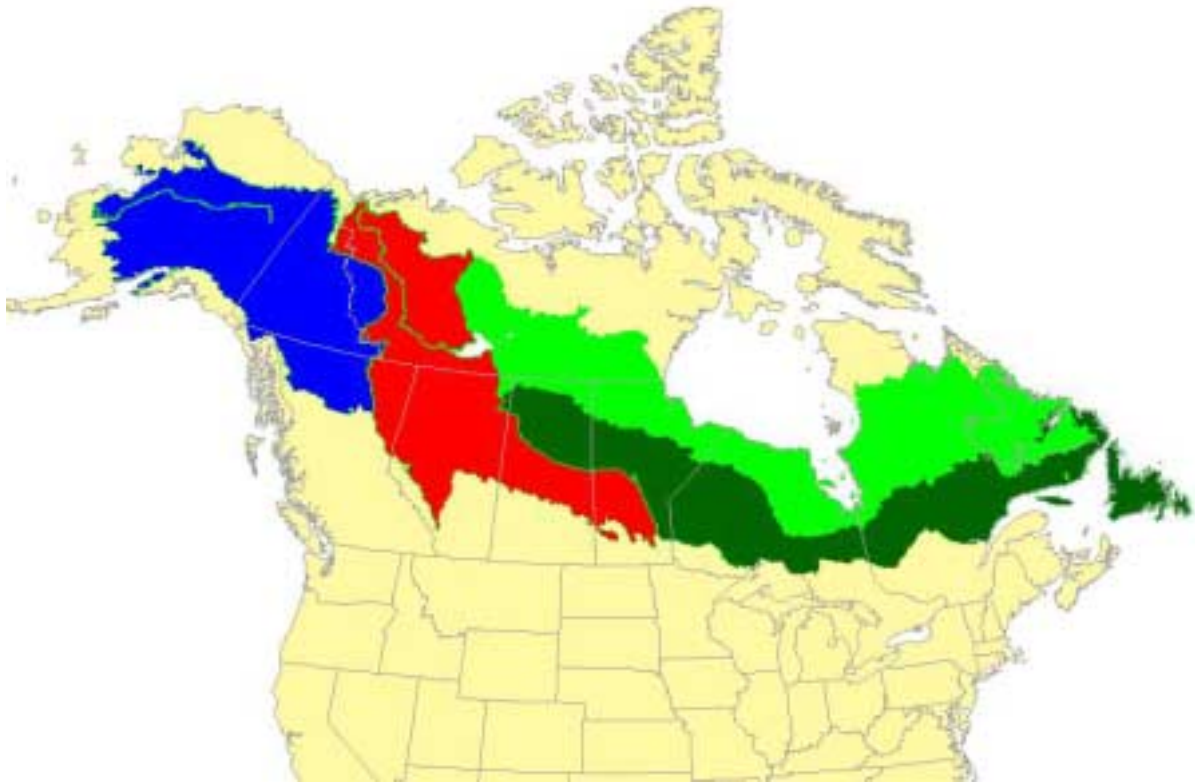


Figure 1: The boreal forest in North America encompasses four Bird Conservation Regions: BCR 4 (blue), BCR 6 (red), BCR 7 (light green), BCR 8 (dark green). Analyses in this report consider the Canadian portion of these BCRs, i.e. excluding the Alaskan part of BCR 4.