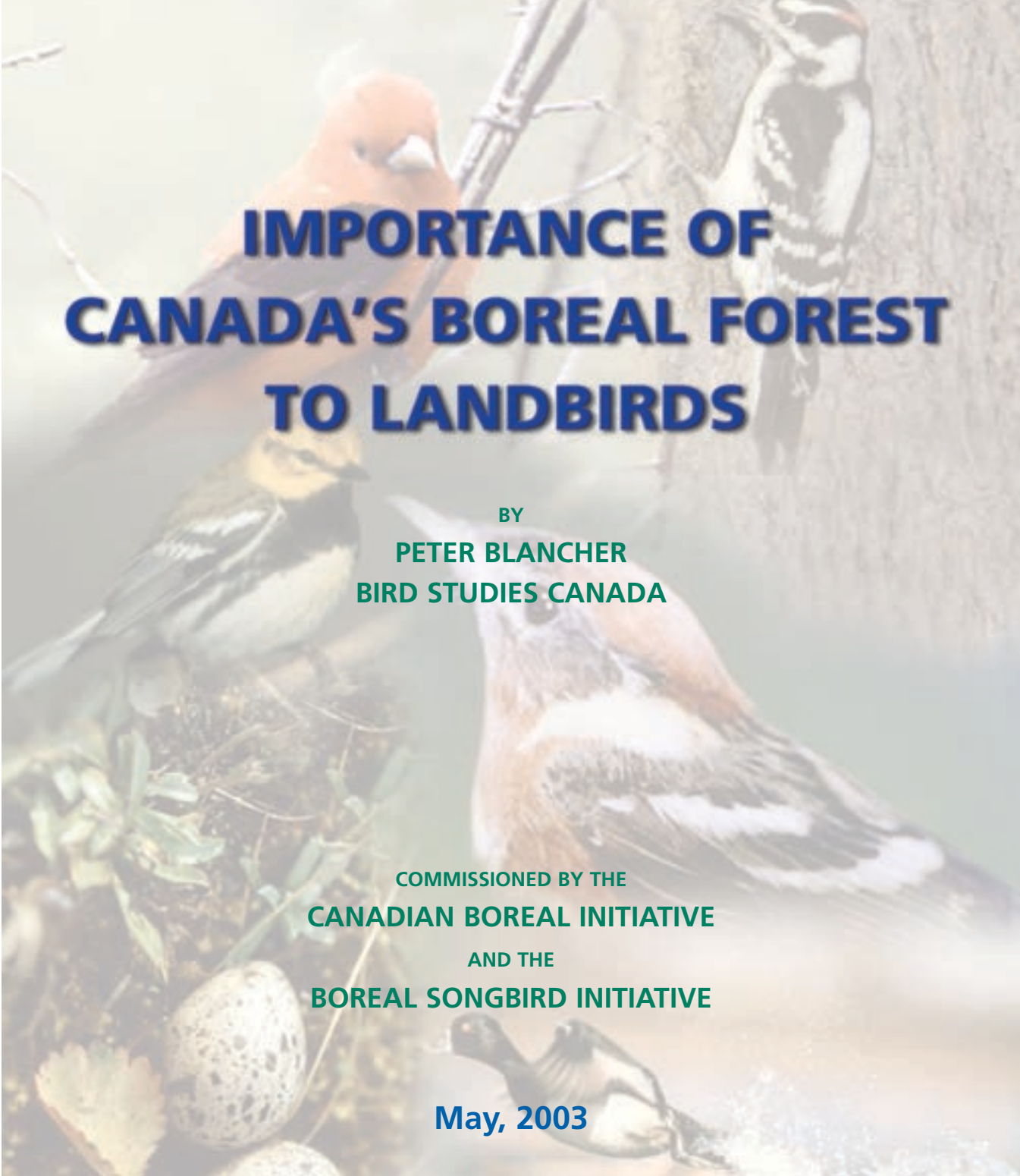


# **IMPORTANCE OF CANADA'S BOREAL FOREST TO LANDBIRDS**

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COMMISSIONED BY THE  
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## EXECUTIVE SUMMARY

**T**he boreal forest stretches across a vast northern expanse of North America, from Alaska in the west to Newfoundland & Labrador in the east. This forest is of immense global importance to landbirds, especially during the spring and summer when billions of them rely on boreal nesting grounds that are found mainly in Canada.<sup>1</sup> This research report illustrates just how important the boreal forest is to landbirds across North America, the Western Hemisphere and globally, by examining broad patterns in their population sizes, trends and links to wintering grounds.

### 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 inhabit Canada's boreal regions. An additional 41 or more species occur there accidentally, or in very small numbers, because the boreal forest is at the edge of their range.

Estimates of the number of landbirds breeding in Canada's boreal region range from one to three billion, depending on the data source and method of calculation. These numbers represent about 60% of the landbirds in all of Canada, and close to 30% of all 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 migrants leave Canada for the winter. In total, about three to five billion boreal landbirds migrate south each fall. More than an estimated one-half billion warblers of 27 species migrate from the boreal, as do at least one billion sparrows, representing 25 species.

During the breeding season, Canada's boreal is home to more than one-half of the global population of approximately 40 species of landbirds. Canada's Boreal provides breeding habitat for over 80% of the global population of 14 species including, Palm Warblers, Tennessee Warblers, Black-backed Woodpeckers, Connecticut Warblers, Northern Shrikes, Smith's Longspurs, Spruce Grouse, Yellow-bellied Flycatchers, Philadelphia Vireos, White-throated Sparrows, Lincoln's Sparrows, Cape May Warblers, Bay-breasted Warblers and Swamp Sparrows.

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 in the U.S. throughout the winter, mainly in the southern states. Dark-eyed Juncos and White-throated Sparrows are particularly abundant boreal migrants in winter in the United States. Mexico is the winter home for the widest diversity of Canada's boreal birds. Many other countries in Central America, northern South America and the West Indies provide important wintering grounds too. Use of these wintering grounds differs dramatically from one family of boreal birds to another.

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<sup>1</sup> For the purpose of this report, Canada's boreal forest is defined as the area covered by the Canadian portion of four boreal and taiga Bird Conservation Regions (BCRs). Together these BCRs encompass 5.2 million km<sup>2</sup> of land (2 million square miles).

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## **How significant are boreal landbirds throughout Canada, North America and the Western Hemisphere?**

Based on standardized bird surveys, boreal migrants form an estimated 10% of all landbirds in the United States during winter, and 17% and 31% of birds during fall and spring migration respectively.<sup>2</sup> At winter bird feeders, 17% of landbirds across the United States are estimated to be migrants from Canada's boreal. These proportions vary significantly, depending upon the time of year and region. For example, boreal migrants form an estimated 32% of Georgia's winter birds, but during fall migration they grow to 37%, and in spring they swell to 48% of the state's bird population. Blackbirds, sparrows and thrushes are the dominant families of boreal landbirds in the U.S. during winter, whereas warblers are dominant during migration, particularly in spring. Dark-eyed Juncos are by far the most dominant boreal migrants at winter feeders in the United States. In fact they are one of the top feeder birds in most states.

## **Which boreal landbird species are experiencing significant declines?**

At least 40 species of landbirds are 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 groups best illustrate the importance of the boreal to landbirds?**

Band recovery data illustrate direct links between the boreal forest and sites further south, mostly within the United States. Warblers in particular stand out as a bird species group highly reliant on the boreal for breeding, that pass through the United States to neotropical wintering grounds. Up to two billion warblers breed in the boreal forest.

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. As many as one billion sparrows breed in the boreal forest.

Christmas Bird Count maps are provided for several boreal species to illustrate their wintering grounds concentrations in the United States.

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<sup>2</sup> These figures are based respectively on data from the *Christmas Bird Counts* and the *Gulf Coast Bird Observatory* network.

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This report was commissioned by the *Canadian Boreal Initiative* and the *Boreal Songbird Initiative*.

Author Dr. Peter Blancher currently works as Partners in Flight (PIF) Scientist for *Bird Studies Canada*, with support from Environment Canada's *Canadian Wildlife Service*. He provides technical support for landbird conservation planning at continental, national and regional scales. As a member of the PIF Technical Committee, he is a co-author of the *Partners in Flight North American Landbird Conservation Plan*.



*Bird Studies Canada* is recognized nation-wide as a leading and respected not-for-profit conservation organization dedicated to advancing the understanding, appreciation and conservation of wild birds and their habitats, in Canada and elsewhere, through studies that engage the skills, enthusiasm and support of its members, volunteers, staff and the interested public.



The *Canadian Boreal Initiative* (CBI) is working with a wide range of conservation organizations, First Nations, industry and other interested parties to link science, policy and conservation activities in Canada's boreal forest. The CBI's long term vision is to safeguard the balance of nature for all time in Canada's boreal forest through establishing an interconnected network of large-scale protected areas and conservation lands; applying state-of-the-art sustainable development practices on the remainder of the landscape; and engaging and empowering local communities and First Nations on land management decisions.



The *Boreal Songbird Initiative* (BSI) is a new project dedicated to educating birdwatchers and naturalists throughout the United States about the importance of the boreal forest to migratory birds. The BSI is part of an emerging network of U.S. organizations — including the American Bird Conservancy, Ducks Unlimited, the National Wildlife Federation, and the Natural Resources Defense Council — working to raise awareness about the boreal forest and assist efforts in Canada and Alaska to conserve it.

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