



## Boreal Birds Need Half Campaign - Backgrounder

### **The Campaign's Purpose and Goals**

The Boreal Birds Need Half (BBNH) campaign seeks to protect 50% of North America's boreal forest, the largest unspoiled forest remaining on Earth and the critical breeding grounds for North America's birds. The campaign supports the effort to realize the following:

- At least half of the boreal forest region must be protected and remain free of large-scale industrial disturbance. That level of protection is necessary to maintain healthy populations of the full spectrum of bird species and other wildlife inhabiting the North American boreal forest;
- Industrial activities undertaken in the remaining unprotected areas should be carried out with the highest global sustainability standards, with an emphasis on maintaining healthy and pristine wetlands and waterways;
- Both protected areas and industrial activities should proceed only with the free, prior, and informed consent of the affected Aboriginal communities.

The BBNH campaign seeks to educate government, industry, and the broader public on the need to set aside at least half of North America's boreal forest from development as soon as possible for the billions of birds and other wildlife that rely on it.

### **Campaign Endorsers**

The BBNH campaign is a joint effort between the Boreal Songbird Initiative and Ducks Unlimited. It has received additional endorsement from the American Bird Conservancy, Audubon Society, Bird Studies Canada, Birdzilla, Canadian Parks and Wilderness Society, Cornell Lab of Ornithology, Environment for the Americas, Nature Calgary, Nature Canada, Nature Needs Half, Ontario Field Ornithologists, and Wild

Bird Centers of America. These organizations represent millions of members throughout Canada and the U.S.

Moving forward, the BBNH campaign will seek to expand its list of endorsers into traditional business circles as well as collect signature endorsements from individuals.

### **About Boreal Birds**

The boreal forest has been called "North America's bird nursery" due to the incredible abundance and diversity of migratory birds that breed there each summer. An estimated 1 to 3 billion birds flock to the boreal each spring to nest during the summer, with the number swelling to 3 to 5 billion once the young have hatched.

An estimated 325 bird species regularly nest in or migrate through North America's boreal forest—nearly half of the birds commonly found in the U.S. and Canada. Most of these species migrate south from the boreal region in the fall to find suitable wintering habitat. Boreal migrants become key parts of ecological communities stretching from southern Canada and the U.S. all the way down to the southern tip of South America. An estimated 1 billion of these birds spend their winters in the U.S., while billions more pass through during spring and fall migration.

Some 96 bird species are particularly reliant on the North American boreal forest, with more than 50% of their population relying on the region for breeding. Overall, 80% of all North America's waterfowl species, 63% of finch species, and 53% of warbler species extensively breed in the boreal.

Boreal birds provide crucial ecological services throughout North America. They pollinate plants, disperse seeds, redistribute nutrients, control pests, and serve as environmental indicators.

### **About North America's Boreal Forest**

Approximately 1.2 billion acres of North America's boreal forest is still nearly pristine and free of industrial development. This vast forest includes a variety of habitats and landforms: coniferous forest, glacier-capped mountains, sprawling peatlands, as well as lakes, rivers, and wetlands.

The size, variety, and intactness of North America's boreal forest provide ideal habitat for a wide variety of wildlife. In addition to billions of nesting birds each summer, the boreal forest contains many of the world's last healthy populations of large predators, including grizzly bears, wolverines, timber wolves, and even polar bears along the coast. Similarly, it is one of the world's last strongholds for migratory mammals such as caribou, which number in the millions and often travel thousands of miles each year between their northern calving grounds and southern wintering areas.

In addition, the boreal forest provides globally significant ecosystem services. Canada's portion of the boreal—about 85% of the North American total—is one of the world's largest storehouses of carbon, storing 208 billion tonnes of carbon in its forests, wetlands, and soils (762 billion tonnes of CO<sub>2</sub> equivalent). Canada's boreal also contains 25% of the world's wetlands and stores more surface freshwater than anywhere else on Earth.

## **Birders Increasingly Aware of the Boreal Forest's Importance**

Thanks in part to evolving documentation of where birds migrate to and from each year, birders are increasingly becoming aware of the boreal forest's importance for many of the birds in their neighborhoods and areas.

Birding is a very popular activity in the U.S. and Canada. Nearly 1 in 5 adults in Canada (18%) and the U.S. (19%) identify as birders—those who travel to view or actively identify birds as a hobby. Canadian birders spent more time birding (133 days per year) than those engaged in any other nature-based activity, while birding represents the second-fastest growing hobby in the U.S. after gardening.

Birds are also big business. Birders in the U.S. spent more than \$40 billion on equipment and trip expenditures related to birding in 2011. Bird-related expenses in Canada (viewing, feeding, and hunting) totaled more than \$1 billion in 2012.

## **The Boreal Forest as a Refuge for Birds**

The National Audubon Society estimates that over 300 North American bird species will lose more than half their current range by 2080, with more than 125 of these species losing that amount by 2050. Many birds in the northern U.S. and southern Canada are projected to shift further north into the boreal forest as temperatures continue warming. Nearly 60% of North America's wintering bird species have already been documented ranging further northward due to climate change.

As climate change pushes birds north and as habitat loss continues to be an issue further south, the boreal ecosystem's large and still-intact landscapes of forest, wetlands, rivers, and lakes will become increasingly important reservoirs of habitat to support bird populations, acting as a 'Noah's Ark' for birds.

## **Why Boreal Birds (and Other Species) Need Half**

Most songbirds and waterfowl breeding in the boreal forest occur in lower densities over large ranges. Thus, conservation of boreal birds requires expansive landscape-scale habitat protection to ensure that a large proportion of the breeding population is maintained within areas free of large-scale industrial development. Maintaining at least 50% of the boreal forest region in large, interconnected protected areas is essential to maintain healthy populations of the full diversity of boreal birds.

Equally important is the need to sustainably manage development in lands that fall outside of protected areas. Industrial development is and will continue to be an important source of jobs and revenue for northern communities. Due to the interconnectivity of ecosystems, planning should incorporate cumulative impacts to habitat over the long-term and be integrated across industrial sectors. Minimizing the spatial extent of impacts and investing in technology that reduce potential sources of pollution are critical, and should be subject to third-party verification. Job and revenue sharing agreements with First Nations and nearby communities are needed to ensure tangible benefits to those who are most affected by impacts to surrounding areas.

It was once thought that conserving as little as 10-12% of a landscape would be sufficient to maintain biodiversity and ecosystem processes. However, modern conservation science estimates now identify protection targets of 25-75 percent of the landscape with a median protection objective above 50 percent. Thus, maintaining the full suite of boreal birds, other biodiversity, and ecological features and functions of the North American boreal forest will require at least half of the landscape be maintained free of large-scale industrial disturbance, while areas used for development should be managed using leading edge sustainability standards.

## **Sources and Supporting Information**

### **Birds and the boreal forest:**

The Boreal Forest Region: North America's Bird Nursery

<http://borealbirds.org/sites/default/files/publications/report-bsi-birdnursery.pdf>

Birds at Risk: The Importance of Canada's Boreal Wetlands and Waterways

<http://borealbirds.org/sites/default/files/publications/Report-BirdsAtRisk.pdf>

### **The boreal forest—intactness, wildlife, and ecological values:**

A Forest of Blue: Canada's Boreal

<http://www.pewtrusts.org/~media/legacy/uploadedfiles/peg/publications/report/PEGBorealWaterReport11March2011pdf.pdf>

The Carbon the World Forgot

<http://borealbirds.org/sites/default/files/publications/carbon%20report-full.pdf>

### **Birding and bird hunting the U.S. and Canada:**

2012 Canadian Nature Survey: Awareness, Participation, and Expenditures in nature-based recreation, conservation, and subsistence activities

[http://www.biodivcanada.ca/2A0569A9-77BE-4E16-B2A4-C0A64C2B9843/2012\\_Canadian\\_Nature\\_Survey\\_Report\(accessible\\_pdf\).pdf](http://www.biodivcanada.ca/2A0569A9-77BE-4E16-B2A4-C0A64C2B9843/2012_Canadian_Nature_Survey_Report(accessible_pdf).pdf)

The Importance of Nature to Canadians: Survey Highlights

[http://cfs.nrcan.gc.ca/bookstore\\_pdfs/18641.pdf](http://cfs.nrcan.gc.ca/bookstore_pdfs/18641.pdf)

Birding in the United States: A Demographic and Economic Analysis

<http://www.fws.gov/southeast/economicImpact/pdf/2011-BirdingReport--FINAL.pdf>

National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

<https://www.census.gov/prod/2012pubs/fhw11-nat.pdf>

The Second Fastest Growing Hobby is... Birding?

<http://www.cbsnews.com/news/the-second-fastest-growing-hobby-is-birding/>

### **The boreal forest as a climate refuge for birds:**

Birds and Climate Change

<http://climate.audubon.org/article/audubon-report-glance>

Birds and Climate Change: Ecological Disruption in Motion

[http://www.audubon.org/sites/default/files/documents/bacc-ecologicaldisruptioninmotion\\_feb2009.pdf](http://www.audubon.org/sites/default/files/documents/bacc-ecologicaldisruptioninmotion_feb2009.pdf)

Boreal Forest will Become Birds' Noah's Ark, and Canada Must Protect It

<http://www.theglobeandmail.com/globe-debate/boreal-forest-will-become-birds-noahs-ark-and-canada-must-protect-it/article21002924/>

### **Justification for the need to protect half:**

Boreal Birds Need Half: Maintaining North America's Bird Nursery and Why it Matters

[http://borealbirds.org/sites/default/files/pubs/birdsneedhalf\\_0.pdf](http://borealbirds.org/sites/default/files/pubs/birdsneedhalf_0.pdf)

Conserving the World's Last Great Forest is Possible: Here's How

<http://borealscience.org/wp-content/uploads/2013/07/conserving-last-great-forests1.pdf>

Can the World Really Set Aside Half of the Planet for Wildlife?

<http://www.smithsonianmag.com/science-nature/can-world-really-set-aside-half-planet-wildlife-180952379/>