

# The Boreal Forest Ontario's

# Big Wild

A globally important ecosystem  
intact forests  
rich wildlife  
clear, clean waters  
vast and unchanged



# Change is coming to the boreal forest

This special publication has been produced by the Federation of Ontario Naturalists, CPAWS- Wildlands League and World Wildlife Fund to promote understanding of Ontario's northern boreal forest region. As you will learn from the stories in these pages, this vast region, which represents one of the world's greatest intact ecosystems, is facing an uncertain future. We will tell you about the natural importance of this area, the threats it faces and what we must do to protect it. After reading these pages, we hope you will get involved in helping us protect the boreal forest!

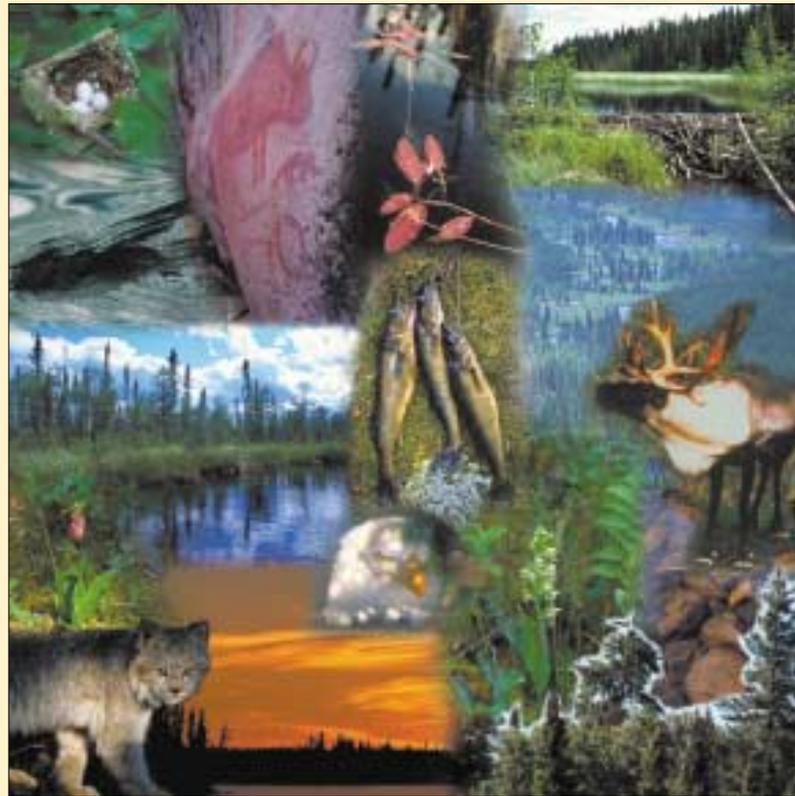
## What we must accomplish in the northern boreal:

- Protect much of the area in a well-designed, interconnected system of core protected areas.
- Complete overall landscape-level plans *before* any areas are licensed to industry or allocated for development.
- Work with First Nations communities to establish real community input and control over planning. We can do this by ensuring that community interests, such as traditional harvesting and gathering areas, sacred sites and areas with other potential uses (such as tourism), are properly protected in land-use plans.
- Work with First Nations communities to change the way in which they benefit from industrial development. We can do this by ensuring that communities have real control in deciding when and where development is appropriate and that substantial benefits (and not just a few token jobs) flow directly to communities.

**B**Y JUST ABOUT any measuring stick, Canada's boreal forest represents one of world's most valuable natural areas. Whether the measure is fresh water, intact wildlife habitat, old-growth forests or the health of traditional cultures, maps showing the Earth's most intact and most natural forests always include the broad band of boreal forests lying across northern Canada. Few other countries can boast of such a huge, sweeping expanse of natural forest running from coast to coast.

In Ontario, the boreal forest covers more than 75 million hectares — close to half of the province — starting just to the north of the northern Great Lakes and continuing north for hundreds of kilometres until the forest finally gives way to taiga and tundra.

The southern boreal is already developed, with extensive road networks, cities and towns, and industrial infrastructure, including lumber mills, mines and hydro dams. North of an invisible line at around 51 degrees latitude (north of Red Lake),



the roads end, the logging stops and the rivers flow free. This is the northern boreal and it has been either officially or practically off-limits to most industrial development — until now.

The northern boreal is home to 28 First Nations communities, almost all of which are accessible only by air. Ties to the land still run deep in these communities, but they are also struggling with social and economic challenges that are linked directly and indirectly to both cultural changes and isolation. In many communities, there is a

growing interest in resource development. There is the hope that such development will help communities address issues like high levels of unemployment, access to medical care and education and help close the economic gap between native and non-native communities.

In the words of the Nishnawbe Aski Nation (NAN), the Aboriginal treaty organization that represents more than 40 First

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Montage photographs by Bruce Petersen, Gregor Beck, Lori Labatt, Anna Baggio, de Visser, Bruce Littlejohn, Peter Meisenheimer and Tim Timmerman

# Wild and free ... forever?

A river runs wild in the northern boreal.

**T**HE VAST BOREAL FORESTS STRETCHING ACROSS northern Ontario from James Bay to Manitoba contain some of the wildest, most intact and healthy natural ecosystems in the world. Spanning an area that is more than a thousand kilometres east to west and reaching hundreds of kilometres north to south, this really is Ontario's Big Wild — an arc of deep woodlands, fast rivers, clear lakes and wetlands that has remained natural for thousands of years.

Ontario's boreal region is part of one of the world's greatest remaining forest systems and is one of the few places on the planet where human influences have not fundamentally changed the nature of ecosystems. The boreal forest wraps the Earth's northern hemisphere like a green cloak, spanning some 12,000 kilometres and covering close to 11% of the planet's surface.

Ontario's far northern boreal forest — the most intact forest area north of the current cutting limit (see map on page 4) — is the home of 28 First Nations communities, few of which are accessible by road. These communities are integral parts of the boreal landscape in Ontario and their well-being remains deeply entwined with the health of the greater ecosystem. While these communities are struggling with both isolation and cultural change, they retain strong ties to the land.

The word boreal comes from *Boreas*, the Greek god of the north

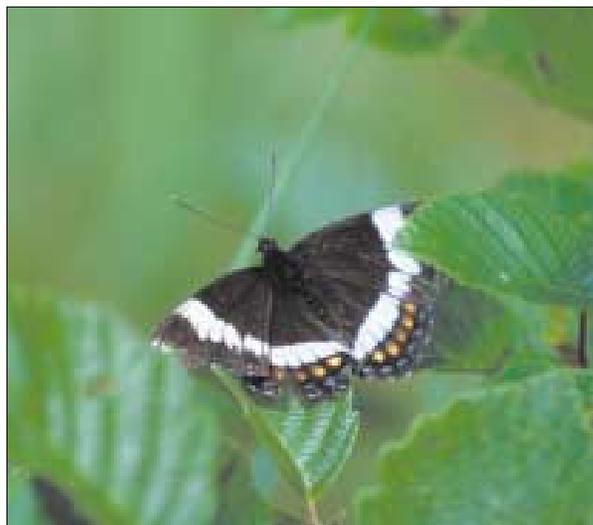
wind, an appropriate name for a forest in which so much of life is geared to meeting the challenge of winter. Short summers of intense activity followed by long, cold winters mean that in the boreal everything from the smallest plant to the largest animal must develop strategies to survive extreme temperatures — highs and lows in the boreal can be as much as 100 degrees Celsius apart over any given year. Whether it's the retractable hoof pads of woodland caribou or the snowshoe-like paws of a lynx, boreal species are adapted to deep snow and are able to travel long distances in search of food and shelter.

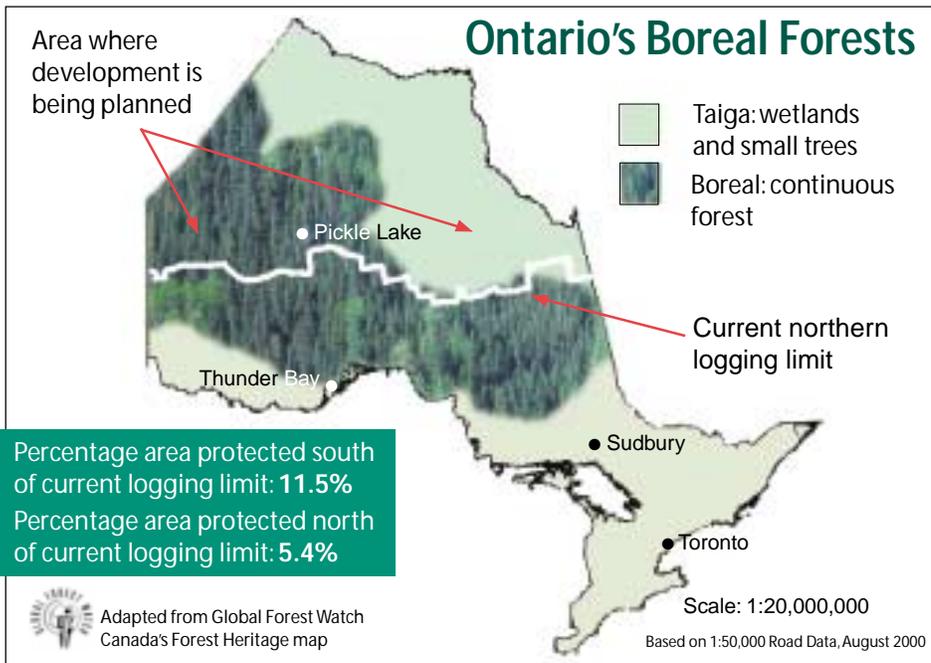
*The boreal forest wraps the Earth's northern hemisphere like a green cloak, spanning some 12,000 kilometres and covering close to 11% of the planet's surface.*

At its southern edges, the boreal begins as a mixing of northern conifers, such as spruce and fir, with the more warmth-loving deciduous trees that dominate the forests ringing the Great Lakes. Not far beyond the shores of the northern Great Lakes, black spruce, jack pine and balsam fir begin to dominate. With the ability to conduct photosynthesis at lower temperatures and shapes suited to both heavy snow loads and low sun angles, these trees are the boreal heavyweights — in fact, the spruces (white and black) have the largest continuous range of any tree species on the planet.

Vast sweeps of tightly packed spruces cover the landscape, with pines topping ridges or sandy  
*continued on page 4*

**The white admiral butterfly is one of thousands of species found in the still-wild boreal.**





## Old growth

### The boreal's jewel in the crown

Many people don't associate the boreal region with old-growth forest. After all, this isn't a forest with giant skyscraping trees. But old-growth forests are a very important part of the boreal forest and are as majestic as any coastal rainforest to the species that depend on them.

In the boreal, old-growth characteristics develop at an earlier age than in other forest types. While scientists have found black spruce trees that are 350 years old, the majority of trees in an old-growth boreal stand in Ontario are between 70-140 years old. More than age, what sets these stands apart is the rich diversity of structures that develop as the forest ages, trees fall, gaps open, and woody debris accumulates, providing a tremendous number of habitat niches that support a wide diversity of species.



pine marten

And while it is often thought that the frequency of disturbances such as fire, wind and insect outbreaks is what prevents boreal forest trees from reaching advanced ages, large areas that are naturally isolated from such impacts, (e.g., in river valleys or by surrounding waters) often do reach a stately age and a structural diversity that sets them apart from the rest of the landscape.

Tree cavity dwellers like American marten depend on these forests, as do caribou, which feed on lichens that can only be found in older forests. Species as different as songbirds, flying squirrels and bats also depend on the large trees and woody structures found only in older forests.

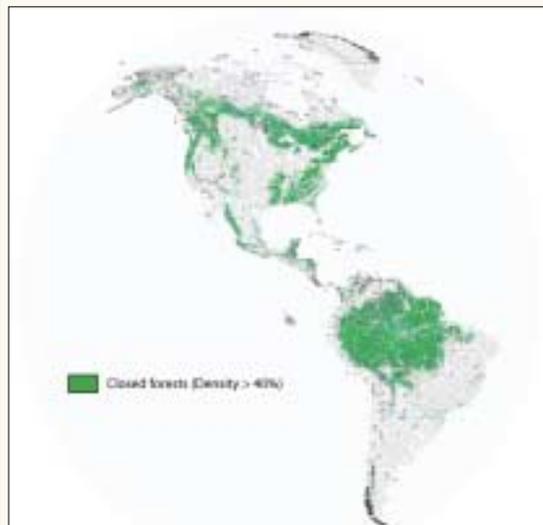
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eskers and poplar, birch and aspen filling gaps or seeding in after fires. Literally thousands of small lakes and wetlands are dotted across the landscape and in some places, the very idea of dry land is undermined by huge tracts of muskeg — a sphagnum mat that offers sure footing only when frozen.

This northern clime is home to hundreds of songbird species, which feed and nest in its insect-rich forests for the warmer months of each year. Each spring, brilliant flashes of colour are set against the deep green forest background. When the cold returns in the fall, the songbirds' survival strategy is to head south, joining waves of migrating waterbirds and raptors in seeking warmer conditions.

But many other species live in the boreal year round. Resident birds like the boreal owl, great grey owl and black-backed and three-toed woodpeckers overwinter in the forest. Woodland caribou will use the deep shelter of the conifer forests to avoid predators while digging through deep

### North America's healthiest forest areas — the boreal is key

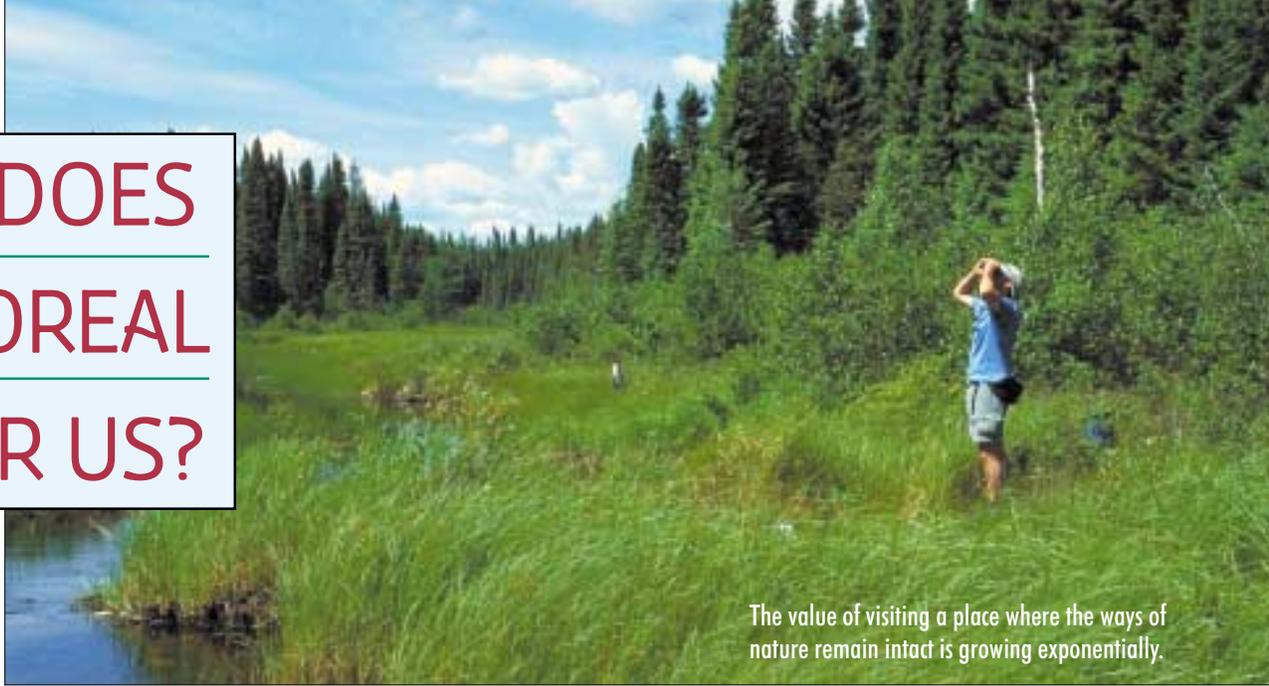


Source: *An Assessment of the World's Remaining Closed Forests*, United Nations Environment Programme, 2001

A recent United Nations report identified the handful of areas left in the world that still contain significant "closed-canopy forests" — forests that still retain the species, structure and area needed to remain healthy and functional. This map makes it clear how important the boreal forests stretching across north-central Canada, including Ontario, are to our planet. The study warns that without active protection, these remaining closed-canopy forests could be lost in just a few decades.

*continued on page 11*

# WHAT DOES THE BOREAL DO FOR US?



The value of visiting a place where the ways of nature remain intact is growing exponentially.

**W**HAT SORT OF MACHINE would it take to filter billions of litres of water, produce soils and restore nutrients, store carbon, produce oxygen, control flooding and erosion, support hundreds of different species (including people), and cost us nothing to run?

The boreal forest handles these “jobs” or ecosystem services every day. These vast forests have a huge impact on our lives — even if we live thousands of kilometres from the nearest spruce tree. They moderate climate for the entire Northern Hemisphere, for example, and directly influence water quality for thousands of lakes, rivers and streams.

A critical — and increasingly important — role of the boreal is controlling global climate change. The extreme and sometimes deadly weather patterns triggered by rising global temperatures are already causing damage, injury and economic losses around the world and the problem only promises to get worse. The boreal is a critical brake on warming trends and may be matched only by the world’s oceans in its ability to absorb and store carbon from carbon dioxide, one of the major contributors to climate change.

The extensive wetlands of the boreal region act like a giant system of sponges, absorbing and filtering water and releasing

it slowly into the surrounding landscape. The result is protection from flooding, cleaner water and higher water tables. These wetlands feed river systems that flow for hundreds or thousands of kilometres and feed into the sources of drinking water for our towns and cities further south.

The broad green mantle of boreal forest lying across the top of Canada also plays a key role in moderating our temperatures and increasing atmospheric moisture throughout the year. We often don’t fully appreciate these benefits because of our belief that deserts are only found in hot countries. But without the boreal, Ontario would be hotter and drier, affecting everything from food production to water supplies.

Of course, the boreal forest also provides us with some very direct economic

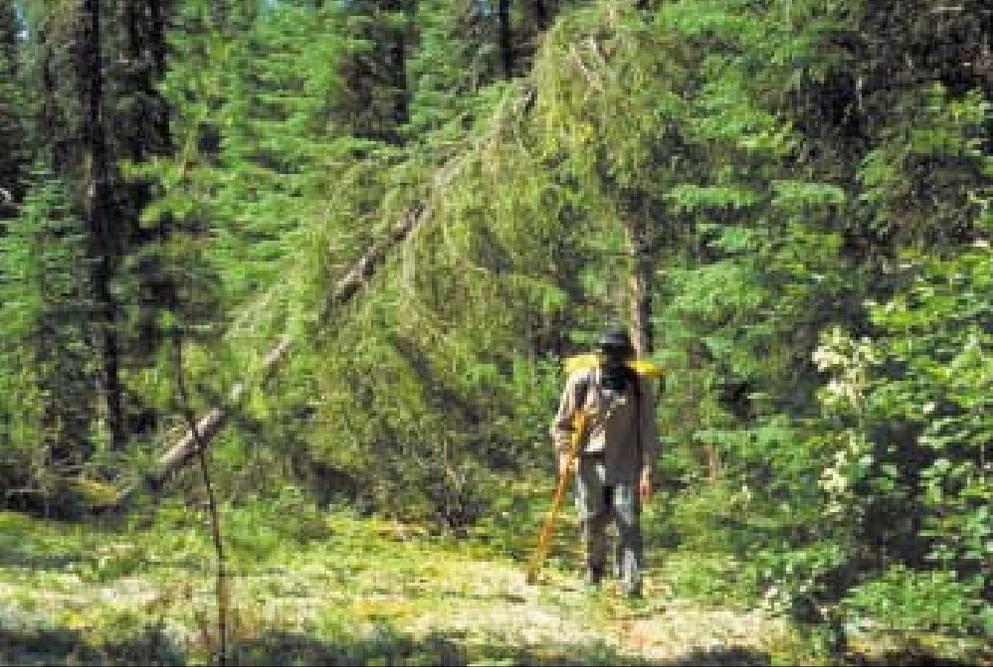
benefits — from wood, minerals and other natural resources to tourism and recreational opportunities. Tourism is the fastest growing industry in the world and the value of being able to visit one of the world’s great frontier forests only grows as the extent of the world’s still-wild areas continues to shrink.

Unfortunately, our approach to extracting resources from the boreal has often been at the expense of many of its other natural and cultural values — from carbon storage to habitat to hunting grounds. This must change. The boreal is a wonderful, living machine that has tremendous value in a world struggling with resource shortages, changing climatic conditions, water deficits and deteriorating air quality. We owe it to ourselves to do everything in our power to protect it. There is no replacement available. ✎

## How the boreal helps moderate global warming

Some in the forest industry claim that logging old forests and replacing older trees with new growth will increase the ability of forests to curb global warming. But this is a fundamental misunderstanding of how forest ecosystems help temper global climate change, one that rests on the mistaken assumption that the bulk of carbon in boreal forests is stored in the trees themselves. Thanks to the cold temperatures characteristic of the boreal region, vegetative material can take centuries to decom-

pose in the oxygen-starved bogs that are so common in this region. This means that the carbon dioxide absorbed and stored by these plants is kept out of the atmosphere for centuries. In fact, the vast majority of the carbon stored in boreal forests is stored in soils, peat deposits and lake sediments. Clearcutting mature forests could actually accelerate the release of carbon from these sources through the stripping away of organic material, erosion and soil breakdown.



# We need a different approach

**C**HANGE IS COMING TO ONTARIO'S NORTHERN boreal forest. This change represents one of the greatest conservation challenges — and opportunities — of our time. At stake is one of Earth's great frontier forests — the home of wolves, bear, caribou, wolverine, marten, songbirds and people. With a new and innovative approach, we can ensure that this great ecosystem and its inhabitants survive and thrive for generations to come.

As we move closer toward opening up an area of deep forests larger than all of Great Britain to activities like logging, mining and hydroelectric development, we have to ensure that there is also strong protection for streams, rivers, lakes, old-growth forests, wetlands, cultural sites and the whole diversity of wildlife habitats and home places that make up the boreal forest region.

We must not repeat the mistakes made in the southern boreal forest: Industrial allocations that preceded planning for nature and communities; mines that left behind struggling communities and toxic waste; and economic systems that exported the bulk of the benefits out of the region. We need to learn from our experiences, including how we have worked to fix mistakes made in the past, and take a different path. We can apply our growing understanding of the needs of wild species and the best ways to protect ecosystems to ensure that the needs of nature come first and that development — if it occurs — provides real and lasting community benefits.

The key to success is planning for what to protect *before* we start to log, mine or build dams. This means we must address the needs of all species, understand the fragility of the northern forest and address the needs of local communities.

In fact, we need to introduce a whole new dynamic to the way we approach land use in this region. In a place where forces such as fire can easily regenerate huge areas of forest in a single sweep, we need to think big. And that means thinking about what we need to do to keep the entire natural landscape intact and working.

Although critically important to keeping ecosystems

healthy, we cannot rely on parks alone to protect the stunning diversity and wildness of the boreal. We must also change our approaches to resource use to ensure that wide-ranging animals like wolves, bears and caribou still have the freedom to move across the landscape and that all of the species that inhabit these lands today still have a home tomorrow.

We must change logging methods by moving away from ever-larger clearcuts and toward practices that leave significant natural habitat intact and that keep the forest much as it was before logging began. We must also change our approach

to mining by planning for areas where mining is not allowed and ensuring that only the safest — and not the cheapest — practices are used to protect adjacent waterways and headwaters from dangerous leaks and spills in areas where mines are allowed.

**279 bird species can be found in Canada's boreal forests and at least 237 species nest and breed in the boreal.**

**Canada's boreal forest is one of the three largest frontier forest areas left in the world. The others are the Amazon rainforest and the forests of northern Russia.**

**The earth's boreal region may contain 80% of the planet's unfrozen freshwater.**

People: Gregor Beck; moose: Lori Labatt



Instead of having islands of protection in a sea of development, we need to turn the map on its head and embed development areas in a larger intact and healthy landscape. This means large core protected areas, wildlife movement corridors, buffer zones, traditional use areas, protected sacred areas, and areas designated for other uses, whether it's traditional areas for gathering, calving or nesting grounds, or pristine areas for nature-based tourism. We will also need to ensure that these

From tiny songbirds to large wide-ranging mammals, the boreal is an irreplaceable home that must be conserved. Clockwise from top left: portaging in the Kishikas Lake system, moose calves swimming, white-winged crossbill fluffed out for warmth, aftermath of clearcut logging, northern pond, wolf print, paddling pristine lakes.

areas are not off-limits for development “temporarily” or “until needed,” but are a part of the protected landscape forever.

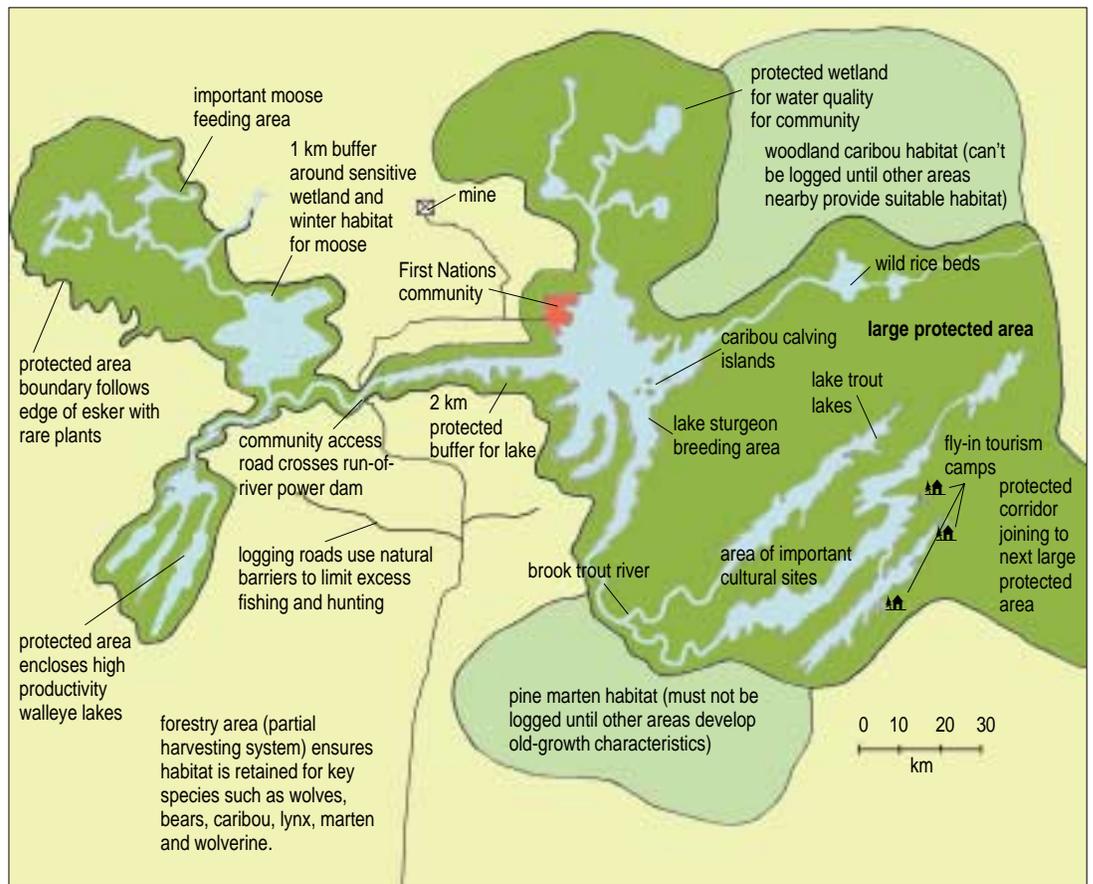
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This hypothetical land-use map shows how development can be integrated into a larger, intact landscape rather than having islands of nature in an industrial landscape. Zoning has been used to designate areas for a variety of land uses and values.

Industrial development is concentrated in areas that have the best ability to withstand the impacts of such activities, but the ultimate goal for these landscape areas remains the full retention of biodiversity as well as maintaining ecosystem structure and function and the age and species mix of the broader natural landscape. Road networks are deliberately limited to reduce impacts and roads are effectively decommissioned after operations have finished.

Meaningful community involvement in creating such a land-use plan and overseeing its implementation will be critical to the plan's success. Such an approach can help ensure that a wide view of the forest is brought to the planning table.

## What might a good land-use plan look like close up?



Pond and clearcut: Bruce Petersen; paw print: Gary McGuffin; crossbill: Robert McCaw

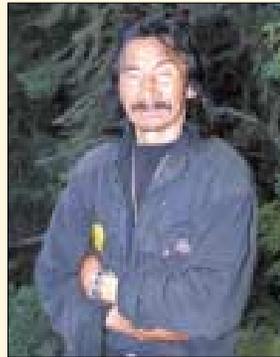
# A Place for People to Thrive



The Cat Lake community in northwestern Ontario can be reached only by a winter ice road.

**F**OR THE FIRST NATIONS COMMUNITIES OF ONTARIO'S northern boreal forest, directing and benefiting from resource development on traditional lands is both a right and a responsibility. The 28 First Nations communities located north of the current logging region are almost all members of the Nishnawbe Aski Nation (NAN, which can be translated roughly as "the People and the Land"), whose territory covers close to two-thirds of the province.

Aboriginal people in Canada, and specifically the communities of Ontario's northern boreal forest, are demanding an equal voice in resource development decisions affecting their traditional lands and waters. NAN, for example, has stated that "First Nations in NAN are re-claiming access to resource development decision making so that



Cat Lake trapper and guide, James Ombash.

resources will be managed on an integrated basis . . ."

NAN has recognized a custodial duty "to protect lands and resources for future generations, and to ensure development, if it occurs, results in benefits for the People of Nishnawbe Aski Nation, and that any development is done in an environmentally sustainable manner."

One of our strongest points of agreement with First Nations is the need for meaningful community involvement in all aspects of land use before any development decisions are made. As NAN states, "notification after government planning or approval is not consultation." First Nations can bring thousands of years of accumulated knowledge and experience to the planning table.

## Facts about Aboriginal communities in Ontario's northern boreal

- 28 communities across northern boreal Ontario (north of the current cutting limit)
- total on-reserve population: 29,000
- communities retain strong ties to the land and traditional food gathering and other land-use activities remain important
- most communities not accessible by road

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While there are those who would prefer to move the old ways of thinking about development northward, there is also growing economic and social pressure for a different approach. Citizens of Canada, the United States and Europe are beginning to understand the power of their role as consumers of forest products, metals and electricity. They are demanding, through their purchasing decisions and through pressure on industry and government leaders, that companies and governments provide proof that goods are produced sustainably.

Independent certification bodies like the Forest Stewardship Council bring together Aboriginal people, conservationists and progressive industry members to develop ecological, economic and social measures of good forest management. Companies such as Home

Depot and IKEA have made key commitments to try to purchase forest products from companies that can meet these standards. Meanwhile, in international political forums, citizens are making the point that global trade also comes with global responsibilities.

In the boreal, we are acting for something larger than just a forest or a wetland or a river valley — we are acting for one of the world's greatest remaining forested ecosystems. We as Canadians can find hope and pride in the fact that we still have an opportunity to ensure the long-term conservation of a vast, globally significant natural landscape. We can set an example of the way forward for the rest of the world. After all, if Canada can't do it right — with all of our wealth, resources and experience — then who can? ❧



The wolverine is an endangered boreal forest mammal.

# WORKING TOGETHER ON CONSERVATION SOLUTIONS FOR ONTARIO'S BOREAL FOREST



Admiring a boreal sunset in the northwest.

**C**ANADA IS ON THE CUSP OF MAJOR CHANGES IN THE boreal. To ensure that the boreal remains a healthy home for people and wild things — from tiny fragile lichens to caribou that slip silently through the forests — we must work together to forge a new approach.

Our efforts to protect the boreal have taken us to many communities in the far north. We have listened to community members discuss their concerns, hopes and expectations for their traditional territories and we have shared with them our vision for the northern boreal. The Federation of Ontario Naturalists, CPAWS-Wildlands League and World Wildlife Fund are working on many fronts to help ensure a healthy future for the boreal:

➤ We are working directly with industry to introduce better forestry throughout the boreal through the Forest Stewardship Council forest-certification system. Currently, we are in the process of collectively drafting standards for ecologically sensitive forestry in the boreal region in cooperation with industry, communities and First Nations.

➤ We are supporting First Nations' efforts to develop community-based land-use planning, including the designation of protected areas. Currently, we are preparing a paper on First Nations and protected areas in cooperation with the National Aboriginal Forestry Association and we are facilitating the attendance of a number of First Nations representatives at an upcoming national land-use planning conference.

➤ We have made a number of visits to First Nations communities in the northern boreal to discuss approaches to land use and to share ideas about shaping a healthy future for these traditional lands. In the summer of 2001, we organized a scientific field assessment trip to an area (Kishikas Lake system) in the northwest that has high conservation values. The beauty and diversity of the almost entirely undeveloped forests we visited in this area have convinced us to expand our research

trip program to gather more on-the-ground information on the natural values of the northern boreal.

➤ We are discussing approaches to mapping and protected-areas designation with First Nations and governments. Good conservation information about areas north of the current cutting limit is scarce, which makes it important for us to incorporate the traditional knowledge of Aboriginal communities into planning and to consider new approaches such as protect-

ing major watersheds in order to conserve the large, healthy ecosystems that can still be found here.

➤ In areas where industrialization has already occurred, we are actively working to restitch the natural fabric of the landscape through a representative network of protected areas that meets the food and shelter needs of all species. Through the Ontario Forest Accord, 378 new protected areas have been established. The ongoing implementation of the Accord will help us complete a scientifically sound backbone of protection across the region.

Clearly we have our work cut out for us. But we are confident that as more and more people in Ontario, across Canada, and around the world come to know the boreal, support for our efforts to protect this global jewel

will grow. In fact, our efforts in Ontario are already part of a growing national and international effort to protect the boreal across Canada and around the globe. This has opened up exciting opportunities to link our work in Ontario to work being done by our colleagues in Manitoba and Quebec and throughout Canada.

We believe we can achieve something truly remarkable and on an unprecedented scale in the boreal, but it is going to take vision, hard work and perseverance. Ontario's Big Wild deserves nothing less. ✨



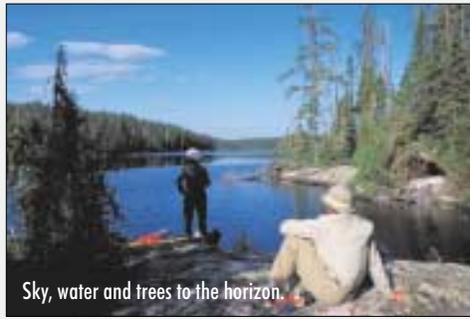
We must ensure the boreal is given more than token protection.

Sunset: Peter Meisenheimer; clearcut: Lori Labatt

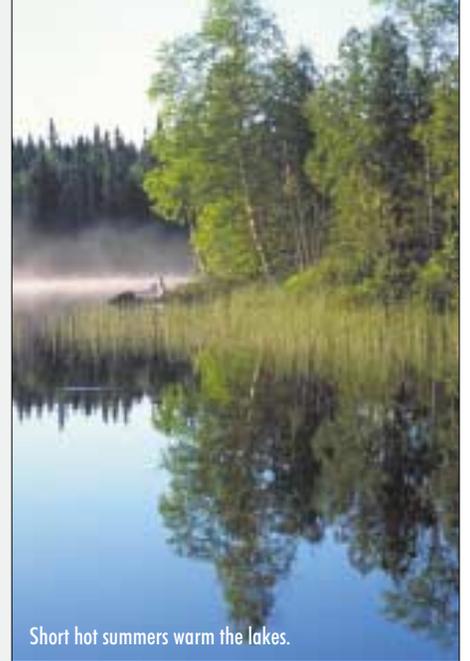
# In the land of the north wind



Bush planes are used to access forests with no roads.



Sky, water and trees to the horizon.



Short hot summers warm the lakes.



Red-eyed vireo nest.



Paddling quiet waters.



Summer sunset with storm brewing.

*In the summer of 2001, CPAWS-Wildlands League and FON staff and volunteers conducted a conservation assessment trip through the headwaters of three major river systems in the boreal forest of northwestern Ontario. We were guided through the family territory of James Ombash, whose family has lived here for generations. We collected a great deal of valuable information about the natural features of the region (available at [www.wildlandsleague.org/northtrip.html](http://www.wildlandsleague.org/northtrip.html)). The photos on this page provide a vivid taste of the poetic beauty of this region, captured as well by our colleague Peter Meisenheimer.*

**by Peter Meisenheimer**

a hard day's travel from Eagle Nest  
 thick with beaver dams  
 and flies  
 our passage counted  
 by dip and flash of paddle strokes  
 little clouds school in an ocean of sky  
 loons whoop and wicker  
 across silver furrows  
 of lakes pure and nameless  
 cranes explode from meadow weeds  
 trumpets blaring wings ponderous  
 backs bowed  
 we hump hearth and home  
 over esker and mossy bog  
 to Kishikas  
 the long dusk settles as we share our meal  
 with mosquitoes sharp, sonorous smoke  
 of the day's fading embers  
 then to bed  
 beneath a luminescent sea of stars  
 green dancing ripples of aurora  
 we dream of paddles  
 wake to loon laughter  
 weird on the wind  
 a sparrow scolding  
 invisible in scragged spruce  
 hoary with lichen  
 bent and beautiful

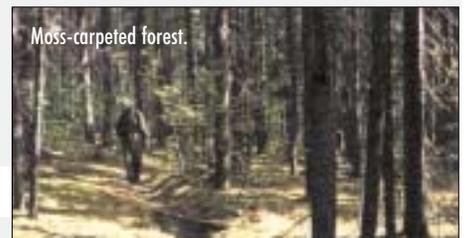
we fish  
 we swim  
 we gather the songs of birds  
 ancient cedars  
 namesake of this place  
 twisted, mossy, fired black  
 fold the lake in feathery arms  
 as we float laughing  
 a shirt for a sail and the wind for a song  
 in air aromatic with sage and pine  
 a storm moves in  
 rumbling over tree tops  
 threatening big things  
 curtains of grey rain sway  
 torpid across leaden glass  
 as we cover up  
 savour the sudden sweetness  
 of a storm fresh breeze  
 tomorrow the plane  
 and the world of worries  
 today we are alive  
 and glad to be  
 tired and sore  
 in the strong wild heart  
 of the world  
 rain drums our tents  
 far away a loon is crying  
 along the shore the trees are sighing  
 Kishikas



Forest, wetland, water: A place for all species.



Walleye for lunch.



Moss-carpeted forest.



Large mammals such as bears can find large intact areas providing food and shelter in the boreal forest.

## Change is coming to the boreal forest

*continued from page 2*

Nations communities in northern Ontario, “It has always been the desire of the NAN First Nations to break the cycle of dependency and become economically viable communities, contributing to Canadian society. Using the land’s resources is seen as the natural avenue for which NAN First Nations can stand tall as self-sufficient communities ready to reclaim ourselves as self governing Nations.”

At the same time, the forestry and mining industries have been pressing to move operations into this vast far northern area, an area larger than all of Great Britain. The forest industry is running out of mature forests to cut in more southern areas while demand for wood products continues to grow worldwide. The mining industry, for its part, welcomes forestry road development that will make mineral exploration cheaper and easier.

Both the Canadian federal and Ontario provincial governments have made it clear that they support industrial development of the northern boreal. From an environmental perspective, this leaves us with two choices: We can protest development and remain on the sidelines while industry-focused initiatives continue to unfold in the northern boreal. Or we can do our best to push the processes and those involved to achieve better outcomes — outcomes that will protect the values of these vast forests while addressing the very real needs of First Nations.

We have a chance in the northern boreal to take a new and better approach to a huge, intact natural area and, for the first time, to put the need to conserve ecosystems and maintain biodiversity at the top of the planning agenda. Working with First Nations, we can create a new set of priorities — and an example for the world. ✎



A lady slipper orchid grows in the deep shade of the forest floor.

## Wild and free ... forever?

*continued from page 4*

snow in search of the old-growth lichens that will sustain them. The hollow honeycomb-shaped hairs of the caribou’s coat will help it survive the cold and snow.

Equally elusive boreal species like weasels and wolves will move through the dense forest individually or in small groups to avoid detection while on the hunt. Meanwhile, everything from ground plants to wolverines will rely on the snow to form a thick insulating blanket under which life can go on within the snow tunnels and openings formed by the undulating terrain.

The white and green expanses of the boreal and the relatively few tree species found in the north may lead some to conclude that this is a highly uniform forest with little complexity or diversity. But the facts show that just the opposite is true. The boreal is actually a very diverse forest that is more like a patchwork quilt of species and forest types than a uniform blanket of any single species.

In fact, the mosaic nature of the boreal means that walking any distance through this forest will likely lead you through a greater mix of forest types than walking the same distance in a tropical rainforest. Beneath the soils, thousands of species of fungi form a vital nutrient network for the entire forest.

Life in the boreal is also highly dynamic with natural forces such as wind, fire and insects operating on a grand scale, sculpting endlessly shifting patterns on the vast landscape. Large fires can burn tens of thousands of hectares while insects can affect even larger areas. Windstorms, floods and other natural forces help shape the forest and constantly reinforce its patchwork nature.

From a global perspective, the value of the boreal couldn’t be clearer. Large, intact, old forests are largely gone from most of the world’s forest regions. Here they — and the species they support — are still in place. Here, rivers still run free, lakes are clean and clear and wetlands remain intact and working. Sensitive species like woodland caribou and wolverine can still find space in these forests away from the impacts of development. Ontario’s boreal is a key part of Canada’s boreal, which in

*continued on back page*



Top: An American toad rests on the forest floor; above left: fireweed growing after a forest fire; above right: a tree hole excavated by a black-backed woodpecker.

# What's your role?

Stay informed about what is happening in the boreal. Check our websites for information and updates and, if you're not a member of our organizations, consider joining so that you will be a part of our efforts to protect the boreal.

► Write a letter to the Premier and the Minister of Natural Resources and urge them to ensure that conservation-focused land-use planning precedes any development in the northern boreal. Tell them you support efforts to finish a scientific protected-areas system in all parts of the boreal.

► Ask for FSC-certified wood products from retailers, whether it's 2x4s, kitchen cabinets or furniture. Consumer demand for FSC products is critical to creating forest-industry interest in adopting good standards for ecologically sound forestry. Check the Certified Wood website for information on FSC-certified suppliers: [www.certifiedwood.org](http://www.certifiedwood.org).

► Make every effort to conserve paper, energy and other resources at home and at work. By reducing demand

for raw materials, and recycling resources, we can help reduce the pressure on our forests. When the Ontario electricity market opens to competition, only buy hydro power from suppliers that are EcoLogo certified. Buy paper goods with high post-consumer recycled content (more than 60%) and reuse before you recycle.

► Fill out the coupon below to learn more about how you can help us protect the boreal.

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turn is a key part of one of Earth's most healthy and intact global ecosystems.

But if we want the northern boreal to remain healthy and wild, and if we want to restore health to areas that have been heavily affected by logging and roads, we must take action right now. We must develop a new appreciation and understanding of the boreal and put that appreciation into action by developing comprehensive land-use plans — including protected-area systems — that guarantee the wild species of the boreal a wild future. ♪

**Insects play a key role in the life of the boreal forest through pollination. However, we have almost no information about insect populations and ranges in the boreal forest.**

**Wetlands make up 20% of the boreal region across Canada. Bogs, fens and marshes are critically important habitat for a wide range of species and help clean and store water.**

**Thousands of lakes are dotted across the boreal. The central boreal forest of the region stretching from Manitoba to Newfoundland is estimated to contain more than 400,000 lakes larger than four hectares.**



FEDERATION OF  
**Ontario Naturalists**

Federation of Ontario Naturalists  
355 Lesmill Rd.  
Don Mills, Ont., M3B 2W8  
phone (416) 444-8419  
toll-free in Ontario 1-800-440-2366  
fax (416) 444-9866  
info@ontarionature.org  
www.ontarionature.org



**WILDLANDS LEAGUE**  
*A chapter of the Canadian Parks and Wilderness Society*

Wildlands League  
*a chapter of the Canadian Parks and  
Wilderness Society*  
Suite 380, 401 Richmond St. W.  
Toronto, Ont., M5V 3A8  
phone (416) 971-9453 fax (416) 979-3155  
info@wildlandsleague.org  
www.wildlandsleague.org

We gratefully acknowledge the support of the  
**C.S. Mott Foundation, The McLean Foundation,  
N.M. Davis Corporation, WWF-Canada's  
Conservation Science and Solutions Fund** and  
the **Pat and John McCutcheon Charitable Trust.**



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Gregor Beck

## Stay informed about what is happening with our boreal forests!

Fill out this coupon and mail it to: Partnership for Public Lands, Boreal Forest Campaign,  
Suite 380, 401 Richmond St. W., Toronto, ON, M5V 3A8; fax 416-979-3155.

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Please also visit our websites at

[www.ontarionature.org](http://www.ontarionature.org), [www.wildlandsleague.org](http://www.wildlandsleague.org) and [www.wwf.ca](http://www.wwf.ca)

