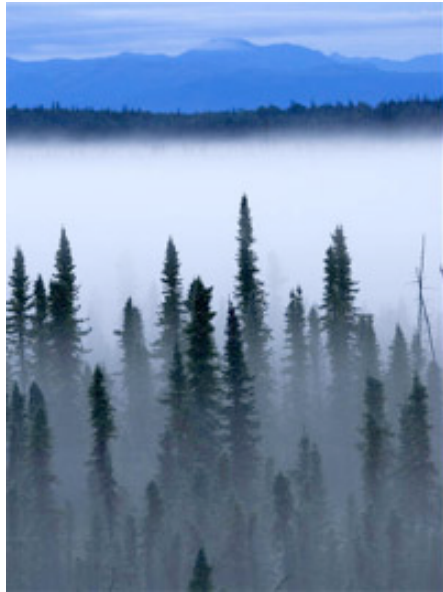


Last great forest under threat, study finds

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Courtesy University of Adelaide
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The world's last remaining “pristine” forest—the so-called boreal forest across large stretches of Russia, Canada and other northern countries—is under growing threat, researchers have found.

The scientists from Australia, Canada and Singapore are calling for the urgent preservation of these woodlands in order to secure biodiversity and prevent the loss of this major global “sink” for excess atmospheric carbon dioxide.



Boreal forest at Kenai National Wildlife Refuge, Alaska. (Photo courtesy U.S. FWS)

The boreal, or northern, forest comprises about one-third of the world's forested area and one-third of the world's stored carbon, covering much of Russia, Canada, Alaska and Scandinavia.

To date it has remained largely intact because of the typically sparse human populations. That's changing, say researchers and co-authors Corey Bradshaw of the University of Adelaide, Australia, and colleagues.

“Much world attention has focused on the loss and degradation of tropical forests over the past three decades, but now the boreal forest is poised to become the next Amazon,” said Bradshaw.

“Historically, fire and insects have driven the natural dynamics of boreal ecosystems,” said Ian Warkentin of Memorial University of Newfoundland in Canada, another of the researchers.

“But with rising demand for resources, human disturbances caused by logging, mining and urban development have increased in these forests during recent years, with extensive forest loss for some regions and others facing heavy fragmentation and exploitation.”

The new work is published online in the research journal *Trends in Ecology and Evolution*. Findings include the following:

- Fire is the main driver of change and increased human activity is leading to more fires. There is also evidence that climate change is increasing the frequency and possibly the extent of fires.
- Few countries are reporting an overall change in the coverage by boreal forest, but fragmentation is increasing with only about 40 percent of the total forested area remaining “intact.”
- Russian boreal forest is the most degraded and least “intact” and has suffered the greatest decline in the last few decades.
- Countries with boreal forest are protecting less than 10 percent of their forests from timber exploitation, except for Sweden where the figure is about 20 percent.