

# You have to fight fire with fire



Unless we stop suppressing naturally occurring blazes, we'll lose more forests to the flames, says biologist

**REESE HALTER**

**The Globe and Mail  
August 7, 2003**

Eight thousand people have been displaced, and the skies above their homes are darkened with towering clouds of smoke. Canadians are seeing tens of thousands of hectares of tinder-dry forest going up in flames. We're spending \$3-million a day to fight these western forest fires, and Ottawa has agreed that federal disaster relief is warranted.

Why is this happening now? And are the fires that are ravaging southern British Columbia and southwestern Alberta a harbinger of things to come, the terrible result of a changing global climate? Or are they the inevitable result of forest policies that have suppressed natural wildfires during recent decades?

The answer is: both. And Canada is not alone. Across the border, Montana's Glacier National Park has been closed due to fires; Washington state's largest fire has charred more than 31,000 hectares since June, and has burned to within eight kilometers of the Canadian border.

Is there anything we can do to prevent more catastrophic conflagrations? Are there lessons amid the ashes?

We should certainly consider the effect human activity is having on climate change. There is preliminary evidence suggesting the climate of B.C. and Alberta is gradually warming. There's also evidence of slight reduction in rates of precipitation, especially during summer months.

Another culprit in the creation of the West's current incendiary conditions is the mountain pine beetle. You can see the beetles' handiwork when the green crowns of pine trees turn yellow or red, and when trunks bear telltale signs of tunneling. As beetle larvae burrow into the tree's interior, further weakening it.

Thanks to the suppression of natural fires, and to warmer-than-average winter temperatures in the past decade, the voracious mountain pine beetle population has increased exponentially. The astounding adaptive ability of *dendroctonus ponderosae* to breed twice in a summer period, combined with plentiful food sources in big old pines, has resulted in one of the largest outbreaks that western North America has seen in modern times. This beetle epidemic is killing thousands of hectares of trees, thereby creating more dry tinder on the forest floor that readily stokes the massive fires we are now seeing.



**Mountain pine beetle: another culprit in the West's incendiary conditions.**

These factors undoubtedly add stress to forests. But are they enough to account for the way our fires are becoming more frequent - and more cataclysmic?

Not necessarily. We should turn our attention to the forest policies of our governments, policies that over the decades have caused the deliberate suppression of any naturally occurring fires, such as those ignited by lightning, that are part of the normal life cycle of the northern pine forests.

Because we have suppressed such natural fires, we have inadvertently created dangerous conditions in both commercial forests - those slated to be logged - and in national and provincial parks. Over the past few decades, natural woodland debris - that is, fallen trees, branches and old undergrowth - have accumulated more densely on the forest floor. Now, when the weather turns dry and a forest fire occurs, that fire becomes bigger than ever, capable of incinerating everything in its path - including rural communities.

If left to the cycles of nature, western North America's pine forests would be swept by fires every 40 to 60 years. But they have not been left alone. And so, many of the forests that are presently burning are older than 100 years. So there is considerably more fuel loaded in the woods than would have built up naturally.

From this perspective, it seems that there's a very good argument to be made against fighting naturally occurring fires. But it's a hard one for many to accept. Timber is a commercial commodity. It's difficult for those whose livelihoods depend on the forest to watch what they want to harvest go up in smoke. There is a reasonable economic argument to be made for the continual suppression of naturally occurring fires. But ecologically, that strategy can be devastating.

There's much that can be done to prevent this summer's fiery scenario from extending and repeating itself. Canada has some of the best forest-fire experts in the world. The current fires will come under control through a combination of rainfall and firefighter expertise.

As well, over the past 15 years, the national and provincial parks have already begun to reintroduce fire into forested ecosystems and lessen the fuel loads on the forest floor. Park scientists have embraced the notion of natural mimicry, that is, to manage their parks based on the current understanding of how forested ecosystems have evolved. Since all Canadian forests evolved around fire, the key is to work with fire, and not against it.

Still, working with fire is never without its risks: Three years ago in New Mexico, a "prescribed burn" deliberately introduced by the U.S. National Parks Service got out of control and destroyed 200 buildings.

Even more difficult will be the debate on how fires should be suppressed, or reintroduced, into the commercial forest. No commercial landowner or manager will willingly acquiesce to letting a natural fire destroy a perfectly good commercial crop of timber.

Yet, if 90 per cent of the land is owned, as in the cases of British Columbia and Alberta, by the Crown - in effect, by the people - with logging companies only owning short-term rights to log that forest, surely the broader population should have a say in how the forest is managed, and specifically whether the forests are harvested or burned. This is a question of public interest, and is the public's responsibility in a democracy.

Humans have always feared fire. But an educated and enlightened population must ultimately realize that, either by design or by accident, fire is part of the natural cycle. And that letting some fires burn is a rational and informed public policy choice, not just for parks, but for commercial timber stands as well.

*Dr. Reese Halter is founder and president of Global Forest Science, an international forest biology research institute based in Banff, Alberta.*

*Dr. Reese Halter*