

Time magazine

July 26, 2004

Adding Fuel to the Fires

Once again, Canada is dangerously mishandling its forest blazes

By David T. Suzuki

Forest-fire fighters in British Columbia experienced conditions last year that they had never before seen in Canada, facing ferocious blazes that traveled at high speeds and jumped several kilometers over highways and waterways. Fire fighters came from across the country to hold back the blazes and protect our land, resources and homes.

It was a taste of things to come. The forest-fire situation in Canada is getting worse for a multitude of reasons. Reese Halter, an internationally acclaimed fire expert, recently observed that the British Columbia fire danger is at a 400-year high. One month into summer, and we're already \$10.7 million over the \$38 million allocated to fight forest fires for the entire season. This time last year, there were 144 forest fires burning in Canada, and they had destroyed 4,418 hectares. Currently there are 266 fires, and they have burned 144,620 hectares. The small town of Lillooet, B.C., has been saved from the fires that came within 800 meters of its outskirts, but south of the border, people in California and Nevada are living the nightmare that Kelowna residents faced last year when hundreds had to be evacuated and homes were lost to wildfires.

The problem results partly from our fiddling with the natural order. Mother Nature grants us services that we could never afford to buy. We rely on nature to provide clean air and water and give us the conditions to grow food and otherwise exist on the planet. Because these natural processes hum along without much noise, we rarely think about them. But the fact is, nature's balance can easily be thrown out of whack, and we as a species seem hell-bent on testing our luck with it. By burning fossil fuels and producing more carbon dioxide than the planet can handle, we have drastically altered the atmosphere and caused global warming. The truth is, we rely on nature but we don't look after it, and sooner rather than later we're going to start paying the price. If you think the unusual weather we've been witnessing in the past few years—including severe storms, heat

waves and large-scale forest fires—is scary, you haven't seen anything yet.

There's no great mystery here. Not only are forest fires predictable—they happen every year, and we know they will come—but they are also a natural process. However, in attempting to control this natural process, we have only heightened a problem that nature can usually deal with itself. We should allow some fires to simply burn. And we should mimic nature by starting prescribed burns—planned and controlled fires that reduce the materials that build up on the forest floor and act as fuel for the fires. Because we aren't doing those two things well, the fires that we face burn larger and hotter. It's a legacy of 50 years of attempts at complete fire suppression.

The natural world handles itself best. Forests naturally burn, and fire is an important ecological process. Natural fires don't usually burn everything in a forest—they leave large trees and produce forest that has diversity in structure and species and is more fire resistant than most of our current managed forests. Some tree species have specifically adapted to fire—for example, the cones of the lodgepole pine open and release seeds during fires. And fires leave nutrients in the forest in the form of ash, whereas clear-cut logging removes essential nutrients.

The large-scale fires we have experienced over the past few years are the result of a complex formula that starts with land-use practices such as the replacement of diverse old-growth forests with new plantations of single-aged stands, often with only a single species. These unnatural single-aged tree stands offer none of the structural diversity that natural forests with different species provide. There are few gaps to act as firebreaks, so once there is ignition, the flames roar right through. Imagine setting a matchbook on fire: light one match, and the rest go up in a row. A single-species tree stand, without species of different ages and heights, is the matchbook on a disastrous scale.

In addition, industry lobbying and the public outcry over smoke levels have caused the fire service to largely halt prescribed burns, which can dramatically reduce the forest loss and property damage. In fact, it is important to consider that the fire retardant typically dumped could be far more of a public-health concern than smoke. This red-colored chemical affects vegetation and gets into the water that ends up in our drinking glasses. Its effects on plants and animals, and on community

and ecosystem health, have not been widely studied. The chemical contains nitrogen and phosphate fertilizer, which probably encourages the growth of some species that now overwhelm others they were previously in balance with, resulting in an ecosystemwide change in species diversity.

The fact is, nature's processes cannot be constrained. If we continue to try to suppress all natural forest fires and if we aren't able to set off carefully controlled burns that reduce fuel loading, we will face fires of a size and ferocity that will be overwhelming. Climate models suggest that in our near future the warmer and dryer weather will cause conditions perfect for creating superfires with hotter, more intense flames.

By continuously burning fossil fuels, we are changing the climate, creating hotter, longer summers, which mean dryer conditions for our forests. When lightning strikes or cigarette butts get tossed, they are more likely to ignite major forest fires. Once started, these fires will grow more quickly, spread more rapidly, reach higher temperatures and burn more of the forest.

Fires have already claimed possessions, homes and lives, but our losses to date will represent a drop in the bucket if we continue with business as usual. To make a real difference, we need to slow climate change by drastically reducing our consumption of fossil fuels. We need to mimic nature as best we can in our forest-management practices. And we need to learn from our mistakes, or coming generations will pay the price.