



Forestry: The Ontario Overview with Dave Pearce

Janet Sumner

Welcome to the ClearCut

[Music]

Janet Sumner

Hi, I'm Janet Sumner, Executive Director at Wildlands League

Kaya Adleman

And I'm Kaya Adleman, Carbon Manager at Wildlands League

Janet Sumner

Wildlands League is a Canadian conservation organization, working on protecting the natural world

[Intro]

Janet Sumner

I think, to really get the full picture of forestry in Canada, we need some context

Kaya Adleman



Right, some background information. We all know that Canada has a lot of forest. According to Natural Resources Canada, we manage [232 million hectares](#) of it.

Janet Sumner

Forests are harvested and managed here every day. Using NRCan forest area harvest data from 2010 to 2020, about 758,615 hectares of forest are harvested every [year](#).

Kaya Adleman

But those are just numbers, data. We want to understand how forestry works. How did forest management start? How did it become what it is today? How are decisions about logging made?

Janet Sumner

And who better to unpack this with than our own Senior Forest Conservation Manager, Dave Pearce. Here's what we learned.

Janet Sumner

So thanks Dave for agreeing to be on this podcast. We really appreciate your time and your wisdom. And maybe we'll just start with asking you to give a brief introduction to yourself and some of your history

Dave Pearce

Thanks Janet. Thanks Kaya, Thanks for being on this podcast. It's my first like professional podcast. So I'm pretty excited. So I'm senior forest conservation manager with Wildlands League, and I've been with Wildlands League for Oh my goodness, coming out to 20 years. And I started off as a forest conservation analyst. My background: I grew up in the Ottawa Valley at a small tourist resort. Hunting, fishing, that kind of thing, a lot of canoeing. That's where I got my love for nature.

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I started learning more about forestry as I got older and was interested in forest management, and so did a masters of forest conservation at the University of Toronto. And I have very mixed feelings about forestry, which will come out (commercial forestry) right now. I think there's a place for forest management. And what I've seen over the years is, that the statements about forest management being sustainable are overrated. But that got me interested in forestry and I did a masters in forest conservation and I'm not a registered professional forester but I have a lot of interest in forestry and I worked in a private woodlot trying to do uber-sensitive forestry for a couple of years and worked for the Minister of Natural Resources for a couple of years on regeneration and silvicultural treatment reporting. I then got on with Wildlands League and my role is really to try to increase the conservation aspect of forestry, working with companies and First Nations and and advocating for more protection of of ecological and species values on the landscape, particularly Caribou.

Janet Sumner

Thanks, Dave. I think this is a, for me anyway, it's a little bit of a rare opportunity. We don't get a chance to sit down and just ask what you think.

But maybe you can. Just start to unpack a little bit...for the general public, they don't necessarily understand what the thinking is under underneath forestry

Dave Pearce

So you're asking me to think like a forester, a little bit here. But with my conservation lens on as well.

So I'll back up a little bit. So in Ontario, most forest management occurs on public land or what's called Crown Land or unseeded territory. Land that hasn't been bought by any particular company. It's, you know, the government manages it ostensibly on behalf of the public. So it's public land. And mill licenses were given out, you know around 100 years ago, in places like Kapuskasing and Iroquois Falls and Dryden and Thunder Bay. And scientific forestry was still in its infancy, but they looked at the forest and said, 'you know what (they sent out timber cruisers) I think there's this much on there and we're going to basically harvest enough to feed the mills'. And they built these huge mills without really understanding what they could sustain. And the battle has been ever since to try to sustain these wood flows, which were in

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most cases inflated. They didn't know how the forest was going to grow back, they didn't really know how much timber they had. They assumed they could harvest to a certain limit. And Ontario has had a limit of commercial forestry in the north for a long time.

Janet Sumner

This is interesting. Forestry started when it looked like there were trees and forests as far as the eye can see. There was a demand for timber met by a need to carve out a living and logging begins. So we started building processing plants, the mills, and over the years, improve and mechanize. Increase production. Maximize the cubic meters of lumber going through a mill as fast as we could.

But of course, the party can't last forever. The number of trees are not limitless. it doesn't go on forever, so they had to change the approach. Dave goes on to explain that change, the Sustained Yield model, which developed on the premise that forest managers...

Dave Pearce

Over the decades came to the realization 'ohh there might be not as much wood out there as we thought. It doesn't grow back as fast. Maybe we're cutting a bit too much. And there's been somewhat of an attempt to to pull back on how much we've harvested and as new knowledge has come in to forestry the sustained yield concept got hold.

And that's a mathematical sort of idealized forest that if you cut overtime, say you have 100 hectares of forest and you cut one hectare per year for 100 years, by the time you get back to the first hectare that you've cut, it's supposed to have grown back. And you've done the tree planting and you've done all the silviculture. And what that does is it converts a forest into more of an agricultural model, right? And those hundred hectares become sort of 100 fields. You plant your crop, you harvest them, you come back after 100 years. And that's roughly the concept of what was called sustained yield over time.

And then we found out that didn't happen. So in many cases the forest has shifted. Because we didn't regrow the forest that was there originally, there was a lot of high grading where they take out the most valuable stuff, and when they came back, (and they've done sort of [retroactive historical surveys](#) to show this) originally the forest was the boreal forest which is



kind of the northern forest, dominated by mostly conifer with pockets of Poplar and Birch, what they call hardwoods, interspersed in kind of a matrix. And what we found after the first pass of forestry had gone by, it didn't come back that way. It came back into a they call it mixed wood situation, where some spruce pine fir came back, but it was really mixed with the hardwoods because the hardwoods came in after the disturbance of forestry. So we found that forest wasn't coming back the same way, so you didn't have this high volume of very valuable forest products which the conifers are, because that's where we get most of our lumber. And there's been an attempt to sort of put that genie back in the bottle ever since. And trying to meet the demands of this mill. And communities that built up around that demand and realizing too late. I think and and many people don't even realize it even at government level that we can't sustain those mills at the same volume and preserve the other other values on the landscape.

Kaya Adleman

So as Dave explains, it seems like the new sustained yield model didn't really work either- because even though they were now rotating harvests on a cycle (anywhere from 60 to 120 years), the forest still wasn't growing back the types of trees that were the most valuable to the mills. So they had to reshift the thinking again.

Janet Sumner

That's right. I find that particularly interesting because some officials have recently stated to me that they believe sustained yield is what is happening in the real world. that if you cut a tree, replant it, that that the forest comes back. That we can regrow what we cut...but it's not what happens, and in fact we've moved on from sustained yield.

Kaya Adleman

And Dave went on to further describe what they moved on to after, in a way that accounts for other important values of the forest.

Dave Pearce

Many, many organizations and levels of government and foresters recognize that that doesn't account for species. You know that might produce fiber, but it doesn't account for all the other



values in the forest. So what they've attempted to do is move to something called sustainable forest management.

They thought 'okay well we're going to take a sort of a species by species approach. And one of the high value species on the landscape is moose for a lot of reasons. I mean you know indigenous people hunt them, settler populations hunt them; you know, for food, for sport, people love to see moose along the highway. I mean, they're just very iconic. And even moose were having trouble. And so they said, 'well, what do moose need?' They need some conifer to hide in for shade in the summertime, because moose get overheated in the summer. And then in severe winters, you know, if you get 2 meters of snow or more, it's even harder for moose to move around. So they go into the conifers in the winter time so they can move around easily. But they also don't eat conifer by and large, they eat the deciduous stuff, so you need deciduous brows close by. And they said 'well let's just cut up the landscape so you have conifer and then a new clear cut which has deciduous and then moose can come out and eat the deciduous and then you have conifer and it was like a checkerboard pattern. And then we started calling them or somebody, started calling them moose motels because it was all designed around moose. Very, very focal, species focused thing. And that went on, in mostly in the 80s, I guess, late 70s, 80s.

Kaya Adleman

I love that, Moose Motels, its such a cute name.

Janet Sumner

It is, and they look cool too if you see them laid on a map, it looks like a great big checkerboard

Kaya Adleman

It's crazy though, that the way they went about it was to just pick species to base this whole new 'sustainable forest management' concept on.

Janet Sumner

But it didn't stay that way, as Dave went on to explain.



Dave Pearce

And in the 90s groups and individuals and you know, government biologists got concerned about Caribou. And they're saying, well, Caribou don't do well here because the moose population goes up, and then the wolf population goes up and the wolves, you know, they do eat moose, but Caribou are like a side snack that have no defense against wolves. They don't run fast enough. They don't reproduce fast enough and they can't fight off a wolf. So moose can reproduce fairly quickly, and wolves are only successful like one in 10 times when they chase a a moose, because usually they get fought off. But Caribou were like no problem for a wolf, and so the Caribou populations were taking a dive. Say well, how are we going to fix that? And this is where it's some natural disturbance pattern emulation came in because Caribou can coexist with fire. And they said well 'instead of having these moose motels, let's act more like a fire and we'll cut big areas, cause the average fire burn in North Western Ontario at that time is where they're focusing, burned about 10,000 hectares. So let's create 10,000 hectare clear cuts just like a fire would and we'll move those around the landscape like a fire would, you know, kind of arbitrarily like a fire would bounce around the landscape. And so we'll keep Caribou on the landscape. And they even had, the government group had T-shirts, I think, made-up, that said, 'think like a Caribou, act like a fire' And they called that the mosaic for Caribou, these large 10,000 hectare clear cuts around the the landscape and they would get rid of the moose motels in Caribou range. And that's, that's where it started. And then with sort of refinement, they now call it the Dynamic Caribou Habitat Simulation Model where again they create these large, large disturbances, moving them around the landscape in attempt to emulate fire. The trouble is, it doesn't work. And we can talk about that.

Kaya Adleman

I mean the rationale makes sense to me because it's like, oh, if this area is going to burn anyway, why don't we draw some sort of economic value out of it for forestry companies before it burns? But I don't know. In actuality, that doesn't seem to make sense because. Like clear cutting forests and releasing all of that stored carbon into the air would just accelerate climate change, make areas hotter, make more fires happen, and worse fires happen. And also logging. I don't know. It doesn't seem to emulate fire like I don't see how those are interchangeable: logging and fire.

Dave Pearce

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Yeah, we could talk about that for a minute and Wildlands League, they produced in the 90s, late 90s and early 2000s produced a series of fact sheets about the differences between logging and fire. There's a few main ones. Fire¹ doesn't create roads which are effectively permanent on the landscape because they don't regenerate before the next rotation comes through and Wildlands League has done work to verify that. And fire doesn't take all these stems off the landscape and truck them away. And logging is, you know, overall it's a physical process where fire is a chemical process, right. And because of that there's a lot of things that a fire does that that logging can't do: such as killing off some of the competition to conifer naturally and in a way that's that's naturally selective as opposed to spraying herbicide afterwards, which is kind of Willy-nilly and and a heavy hammer and there's lots of, you know, add on negative effects to it. And then the quality of the structure that's left is very, it's human selected. It's not naturally selected, so the standing trees left, you know aren't the same ones that would be left standing if a fire went through. You know the species of trees that survive a fire might not be the same ones that logging you know, would leave behind. So yeah, there's a lot of differences between fire and logging that we haven't figured out how to really emulate fire on the landscape. But the the main one is the roads and the permanent impact of these roads remaining on the landscape.

Janet Sumner

Dave. I liked what you were saying and maybe I'll just rephrase it back to you, but this idea that forestry is out there taking the genetic winners and the preferred species and fire, and this is just my understanding, tends to leave the stronger trees or the genetic winners standing. And and so it's like a reverse of the process.

What happens if we suppress fire?

Dave Pearce

So if when we suppress fire -again, I'm not an expert on any of these things, and you know, I'm kind of fairly well informed lay person on this- but my understanding is when we suppress fire, we can only do it for so long and eventually trees fall over because they die of old age. You get a lot of dry stems logs basically slash piling up and that creates such a huge fuel load that you

¹ Dave misspeaks here, he says "Logging" but meant "Fire"

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get a particularly dry summer there's no way you can stop, put that fire out. Like once it gets going, it's just going to keep going and then we get like, big, more catastrophic fires, which are becoming more and more common, partly because of climate change. Also, because we've attempted to suppress fires over the last 100 years to, you know, harvest them for fiber instead of letting forests burn. So you get increased fuel loads, increased heat and then it burns and kills everything and might even you know, result in forest being replaced by grassland because you've basically killed all the seed source and the fire so hot, it kills all those underground. The root systems and the stumps and everything from the deciduous trees. The other thing, by removing the natural pattern, if you remember this is some of the good work that governments have done, they've established through historical records that the natural pattern was pure conifer overall, with sort of islands and hedgerows of pure deciduous in between and those pure deciduous stands kinda acted like a fire break. And so you kind of limited the size of the fires cause they'd hit these pure Poplar stands. And you can imagine burning a dry bunch of Christmas tree needles as opposed to a head of lettuce, you know which is going to burn more. You know the deciduous is kind of like the head of lettuce it's not going to catch fire as easily. And they provided fire breaks, but with mixing these species through forest management, you don't have these effective fire breaks because there's always a path to go around, you know, a little small blob of deciduous through the conifer. you know, that has grown back. So you've kind of removed these natural fire breaks, so that's one of the impacts of forest management.

Kaya Adleman

Interesting. So it seems like the strategy is kind of like a catch 22. This mimicking fire strategy.

Dave Pearce

Right a catch 22 in the sense that we're trying to save fiber from being consumed by fire, but at the same time we're exacerbating the conditions for fire on the landscape through climate change and changing the composition of the forest.

Janet Sumner

So according to Dave, where we stand now with forestry, is planning with an appreciation of other values on the landscape, species like Caribou for example- but also this desire to emulate



the natural processes of the forest, like fire. It seems like an attempt to reconcile the natural state of the forest with our own human caused, anthropogenic activities like logging and forest management.

Kaya Adleman

Right, but like he said, there are issues with what we're currently doing as well. While it might be better than the original wild west approach of 'lets take what we can' or even the sustained yield 'lets harvest every 100 years' model, Trying to treat logging like a fire can carry serious consequences for the state of our forests.

[Music]

Janet Sumner

So Dave, I just want to ask a very direct question: is forestry sustainable?

Dave Pearce

Yes, well, sustainability is, it's a spectrum, right? That's the way I look at it.

Janet Sumner

Give us your best shot like, under what conditions?

Dave Pearce

Yeah, I'd have to say not as sustainable as it purports to be and it's not sustainable under the current footprint of forestry. Because we're in both a biodiversity and a climate crisis and I think we need to take some radical action.

Kaya Adleman

Would you say that because most forestry happens on crown land that Canada is kind of in a unique position to be more proactive in its approach to making forestry truly more sustainable?

Dave Pearce



Yeah, that's a great point cause I guess we are unique in the amount of public land. This is where most of the forestry happens. [It's about 90% in Ontario](#) and [90% across Canada](#), probably that forestry happens on public land and 10% on private land. And then in the US, I think that's flipped and [it mostly happens on private land](#), and there's a small area. So yeah, so the public should have a greater say in how forestry happens. We actually published a manual closer to when I started with Wildlands League in 2004, 2005 on Citizens Guide to Forest Management and how to engage Forest Management Activities. Now it's, that's out of date and our voice as citizens has been stripped back steadily by, well, particularly under the latest Conservative progressive Conservative government in Ontario so that we have less of an opportunity to, for example, full demand, a full environmental assessment on a forest. Most forest management activities occur under a sort of a high level class environmental assessment, that kind of said well these are the ways you can tweak this so that it meets environmental standards in general forestry, so forestry is kind of OK, we don't need to do individual environmental assessments. But we were able to contest that and say, OK, for this particular forest, we want an individual environmental assessment, but even that that option has been taken off the table. So we do have potential to raise our voices, but that that is becoming more and more muted over time. And and and and so it might be time to rally the the Citizen Guide to resurrect that and get more citizens involved in forestry planning.

[Musical Break]

Janet Sumner

That was a very insightful chat we had with Dave about the evolution of forest management in Canada and its present state. What did you think, Kaya?

Kaya Adleman

Yeah, I really learned a lot and I feel like I have a good foundation for my understanding of forestry in Canada. he provided good context regarding what decisions are being made and how that impacts forests and sustainability today. It seems like progress has been made from the days of pillage and plunder but there's still a lot of work that needs to be done. What are your thoughts, Janet?

Janet Sumner



I found it particularly interesting that our thinking has evolved, becoming more complex, looking at multiple values in the forest. That being said though, we never went back to the first principles and asked ourselves the question: can forestry ever truly coexist with nature and not have a fundamentally altering presence on the landscape. At the heart is the question, is logging sustainable? Or can it be? Dave concludes that right now, how forestry is currently practiced is not sustainable given we have a climate changed world and biodiversity crisis where many species clinging on to their existence. And not only do we need to leave our forests intact and standing to continue to absorb and store carbon, but we need them to provide habitat to these threatened species, like the iconic Boreal Caribou. Just recently the federal Environment Minister determined that once again Ontario was not effectively protecting habitat for boreal caribou and made a recommendation to cabinet. But instead of taking action under the Species at Risk Act, the federal cabinet blinked, and gave Ontario another year.

This delay will enable thousands more of hectares of caribou habitat to be logged on top of the forest that burns. Its frankly unconscionable. Ontario has had more than ten years to come up habitat protections plans and they've failed. Ontario wants to double logging, burn more for biomass and hand over lands to the mining sector for critical minerals. We are a long way from sustainability and in fact, I'm worried we're exhausting our forests and that future generations are going to look at us and think what were they thinking?

Kaya Adleman

This is kind of in line with what Dave was talking about, with current sustainable forest management ideas not being good enough to protect important values in the forest, species like Caribou, values that are not timber.

Janet Sumner

Yeah, and we need to continue to to push for better government actions, not just to have regulations but to actually take action that backs those up. To protect and preserve those values that are in the forest.

[Music]



Janet Sumner

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Kaya Adleman

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Janet Sumner

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