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Wet'suwet'en face runaway beetle infestation

As far as he could see from his seat on the airplane, Wet'suwet'en First Nation Natural Resources Coodinator Reg Ogen observed a carpet of red trees—the unmistakable calling card of the mountain pine beetle.

Below him stretched a vast interior plateau, rich with lodgepole pine, and right to the horizon, the mountain pine beetle epidemic had a solid grip on the forest.

"We must have flown for about 20 to 25 minutes, and I could see almost everything from Houston south to Tweedsmuir Provincial Park," Ogen recalls. "There's a lot of red trees down there. I don't see it letting up at all."

"Down there" includes Wet'suwet'en lands, centred about 12 kilometres west of Burns Lake, with administrative offices and a community centre in Palling, on Highway 16. In recent years the Wet'suwet'en First Nation has made a concerted effort to get band members involved in forestry, through training and employment opportunities in silviculture and logging, with future plans for sawmilling and forest-based tourism.

Out of a population of about 220, approximately 30 per cent of Wet'suwe'ten reserve members are trained in some form of forestry-related activities, Ogen points out. So, he notes it's no surprise that the community is very much aware of the serious impact mountain pine beetle will have on everybody in the region.

Realizing they needed to organize a response to the epidemic, the Wet'suwet'en successfully applied for a project to develop and implement a mountain pine beetle management plan, through the First Nations element of the Federal Forestlands Rehabilitation Program, part of the Mountain Pine Beetle Initiative managed by Natural Resources Canada (http://mpb.cfs.nrcan.gc.ca).

Wet'suwet'en First Nation member marks beetle-infested tree

Their project supports ground surveys of reserve lands to provide data for determining treatments that can cope as best as possible with an epidemic on this scale. Natural Resources Canada supports the project with $60,000 through the Mountain Pine Beetle Initiative. The Wet'suwet'en provide $15,000 in additional support and services.

Wet'suwet'en First Nation is implementing a mountain pine beetle management plan

The Wet'suwet'en mountain pine beetle project rolled into gear in the spring of this year. Four band members received training to do ground surveys and mountain pine beetle probes. The crew went into the field in March and April, surveying all 11 Wet'suwet'en reserves.

Their survey work included identifying infested lodgepole pine trees, plus additional timber cruising through forest stands on reserve land.

"Our surveys confirmed our fears," says Ogen. "We have a major, widespread infestation of mountain pine beetle, and the epidemic puts valuable timber at risk."

Based on the survey evidence, proposed treatments for Wet'suwet'en forests include sanitation harvesting and some minor road access to support the logging. But like other British Columbia First Nations, the Wet'suwet'en know that treating mountain pine beetle is not a matter of logging and leaving it: there are complications.

For one, the scale of the infestation in the big picture is so large.

"In a way, we're fighting a losing battle, " Ogen admits. "We're always going to be two steps behind the beetles. But we hope our management strategy helps us do our part to slow the infestation down on reserve land, at least, while giving us the opportunity to salvage fibre."

Also, the Wet'suwet'en must sell their harvested beetle wood when major forest companies are already over-supplied from logging on beetle-infested Crown land. But in that respect, the band's prospects are good.

"We have interested buyers for the wood," Ogen points out. "We can sell to Cheslatta Forest Products, south of Burns Lake, and we have many small sawmills interested in purchasing."

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Reg Ogen, Wet'suwet'en First Nation Natural Resources Coodinator

Then, there's the future. Ogen notes that reforestation is a key component of the Wet'suwet'en beetle management plan. He says the band already has a local contractor lined up to do reforestation work.

Another thing the Wet'suwet'en have going for them is community involvement.

Ogen explains that band members met in May to talk about the mountain pine beetle situation, suggesting ideas for the management strategy and discussing how to use the harvested wood. He says people have a lot of good ideas, and diversification is a common theme.

"We want to continue developing our forestry expertise, but we're thinking about building some tourist cabins, and trying to use the recreational value of our forests to benefit our community," he says.

Ogen knows the Wet'suwet'en have lived with the forest for a long time and will continue doing so. The current mountain pine beetle epidemic represents both a challenge and an opportunity in an on-going relationship with the land.

Land stewardship matters to Ashcroft Indian Band

Mountain pine beetles still pose a problem in Ashcroft Indian Band territory, despite the fact that activities other than forestry dominate the local landscape.

"Much of this country is open range," explains Ted Sales, forestry consultant working for the band.

"Agriculture is important. We didn't want a lot of deadfall pine making it hard for the cattle to range."

The Ashcroft Indian Band is located along the Thompson River in the dry country on the landward edge of British Columbia's coastal mountains, near the towns of Ashcroft and Cache Creek. About 228 band members live on four separate reserves, with the main community situated about 10 kilometres south of Cache Creek.

The land is among the driest in British Columbia, but ponderosa pine and Douglas-fir grow in gullies where there is more suitable soil and water than on the range. Sales notes mountain pine beetle now infests anywhere between 20 and 80 per cent of the pine growing in specific pockets across band reserves.

"The area is heavily used for recreation by many people in this part of the country," Sales adds. "Forestry is more important from a land stewardship than an economic perspective for the band."

Despite the lower profile forestry plays economically, Ashcroft Indian Band didn't want to stand by and let mountain pine beetle destroy what valuable timber there is.

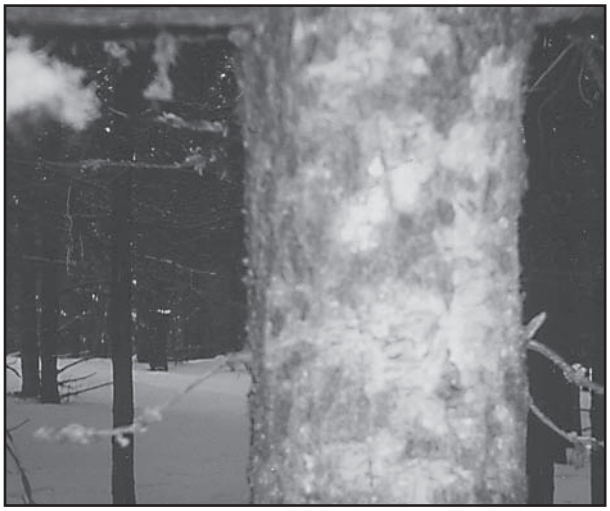
"This band has limited available capital resources," Sales points out. "If we don't capture that value now, with the current infestation situation, then we won't be capturing any value from the forest resource."

For Ashcroft Indian Band, helping contain the mountain pine beetle infestation goes hand-in-hand with respecting the land and using resources wisely

Participation in the Mountain Pine Beetle Initiative, managed by Natural Resources Canada, made a lot of sense to the Ashcroft Indian Band. Last year the band successfully applied to the Mountain Pine Beetle Initiative, and began work on surveying reserve land to identify infested trees and prepare for some sanitation harvesting. This year the band is continuing its work, using $60,000 from the program and contributing an additional $20,000 in services and costs.

Sales explains that concern for the band's heritage always plays a part in considering any action that impacts the landscape. Mountain pine beetle work is no exception. He points out that archaeological assessments complemented the beetle surveying

work. Two Ashcroft Indian Band members did the archaeological assessments to locate culturally significant sites and ensure such areas would not be disturbed by mountain pine beetle counter-measures.



Infested pines are a forest stewardship concern for the Ashcroft Indian Band

With completed archaeological assessments and mountain pine beetle surveys, the next step for the band is logging infested trees on 36 hectares situated west of Cache Creek, between the Cache Creek and Hat Creek watersheds. Sales says five Ashcroft band members took a training course in falling, bucking, and skidding. They will do the sanitation harvesting, planned for this fall.

"Lytton Lumber is going to buy the beetle-infested wood we will harvest on the reserve, and that is a big factor in encouraging us to go ahead with logging," Sales emphasizes. "It would have been hard for me to justify applying to harvest those trees, if all we were going to do was leave them for deadfall, and replant around them in future."

Reforestation is a major component of Ashcroft Indian Band's mountain pine beetle management plan. Sales points out that the Mountain Pine Beetle Initiative is enabling the band to buy the seed and sow 55,000 seedlings.

"After we harvest the infested trees this year, we're going to assess the area for reforestation, then make plans to do site preparation next fall, and plant in the spring of 2006," he says.

Sales notes when the planting is finished, it will mark completion of a three-year participation by Ashcroft Indian Band in the Mountain Pine Beetle Initiative.

"We want to do what we can to manage mountain pine beetle infestation on the band's reserves," he says. "The band shares a commitment with their neighbours on this land to practise good stewardship. It's the right thing to do."

Time is on beetles' side says Cheslatta Carrier Nation

Ever-escalating damage caused by mountain pine beetles, plus the fact that time to salvage valuable timber is running out, are pressing realities facing the Cheslatta Carrier Nation.

Cheslatta Carrier Nation emphasizes overall forest health

Located about 40 kilometres south of Burns Lake on Hwy. 35, Cheslatta Carrier Nation consists of about 110 members living on 10 reserve parcels of land. Cheslatta Carrier Nation pine forests are heavily infested with mountain pine beetles, and band offi-

cials say that now is the time to do something before substantial wood value is lost.

Forestry helps sustain First Nation communities - Cheslatta Carrier nation members at work

"We can log the infested trees at this stage," says Cheslatta Carrier Nation Senior Policy Advisor Mike Robertson. "But if we wait much longer, nobody in the world will be able to go in and log all those trees in time to salvage the timber."

That sense of urgency propelled the band to participate in the Mountain Pine Beetle Initiative, managed by Natural Resources Canada. The Cheslatta Carrier Nation successfully applied for a project that involves the three basic steps to respond to mountain pine beetle infestation: surveying, treatments, and reforestation. Natural Resources Canada is supporting the project with $60,000; the band is committing $15,000 in services.

Surveying reserve territory to gauge the level of infestation and gather information about the location of infested trees was the first step on the land. This survey information enabled James Rakochy, Cheslatta Carrier Nation Forest Manager, to propose treatments and develop a mountain pine beetle management plan.

Four band members worked last winter, and into this spring and summer, to carry out beetle probes and complete surveys of lodgepole pine stands. What they found verified fears about the extent of the epidemic.

"Mountain pine beetles have overrun most of our forests," Rakochy points out. "My guess is that right now there's between 15,000 and 20,000 cubic metres of valuable timber at risk. We've got to make something out of that resource, and we've got to do it now."

Rakochy explains the survey work shows about 320 hectares of reserve land are heavily infested now, and the epidemic has the potential to infest another 1,500 hectares soon. The Cheslatta Carrier Nation's mountain pine beetle management plan includes significant sanitation harvesting.

"But we don't consider the logging aspect of our management strategy simply as sanitation or salvage," Rakochy explains. "We look at it from the perspective of forest health. We want our mountain pine beetle plans to reflect our long-standing regard for the integrity of the land base."

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James Rakochy,
Cheslatta Carrier Nation
Forest Manager

Both Rakochy and Robertson emphasize the point that by taking action to control mountain pine beetle on their land, the Cheslatta Carrier Nation is supporting a good-neighbour policy.

"We have to deal with this problem, along with everybody else," says Robertson. "The epidemic is so widespread, and the potential for damage so great, we want to do what we can on our reserves to help control this infestation."

Robertson points out that Cheslatta Carrier Nation has an established infrastructure to harvest and mill pine. The Cheslatta are co-owners of Cheslatta Forest Products Ltd. at Ootsa Lake, and since 2001 have been producing 80 million board feet of lumber annually, employing nearly 130 people. He notes that the band, through local involvement in forest management over many years, has an on-going commitment to forest stewardship, and approaches the mountain pine beetle challenge with the same attitude.

Mountain pine beetles are putting forest jobs for First Nations at risk

"We know that this is an opportunity for economic gain for us that will be lost if we don't act," Robertson states. "But we also know that this is a major forest health issue, because we need a sustainable resource."

Reforestation marks a key component of the Cheslatta Carrier Nation beetle strategy.

"We want to go in there and start planting," Rakochy stresses. "Reforestation will help us maintain successful and sustainable forestry for the future."

Lytton First Nation builds partnerships to battle beetles

Lytton First Nation's 55 separate reserves dot the steep rocky slopes of the Fraser River canyon country like pine needles sprouting off a stem. Access in a challenging geography affects just about everything in this part of British Columbia, including fighting mountain pine beetle infestation.

"We first noticed the mountain pine beetle becoming more of a problem in our forests during 2002," says Bernadine Aleck, Economic Development Officer for the band. "But some of the land where we found beetles is very hard to access and harvest."

Aleck says Lytton First Nation's on-going efforts to build partnerships with forest-sector neighbours proved very valuable. For example, Lytton Lumber worked with the band on the first beetle sanitation harvesting project in 2003.

Burrowing beetles prompted Lytton First Nation to participate in the Mountain Pine Beetle Initiative

"One of our reserves with mountain pine beetle infestation is adjacent to land worked by Lytton Lumber, so Lytton First Nation combined harvesting efforts with the company," says Aleck. "That really helped us because we didn't have to pay the full cost of logging equipment."

Aleck explains that Ainsworth Lumber Co. Ltd. bought the timber from that first beetle harvest on 15.6 hectares last year. She notes that finding a buyer for the fibre in a marketplace flooded with beetle-wood was a key challenge for the band to overcome.

Another partnership forged by Lytton First Nation is with Natural Resources Canada, through the band's participation in the Mountain Pine Beetle Initiative. Natural Resources Canada is contributing almost $50,000 to the project, while Lytton First Nation is providing $12,000 in services and support. The project will support efforts on two reserves north of Lytton along Highway 12, on the east side of the Fraser River. The project is enabling Lytton First Nation to replant hectares already logged for mountain pine beetle infestation and survey a smaller, five-hectare plot for sanitation harvesting. The plot slated for harvesting needed new road access. That ground will eventually be replanted, too.

Aleck points out activities supported by the mountain pine beetle project are creating employment for Lytton First Nation members.

"Seven band members worked on logging infested trees," says Aleck. "Another five people cleared the right of way for the access road. Also, we employed two band members to survey the smaller block we haven't logged yet."

Reforestation is part of the Lytton First Nation's beetle management plan. The project enables the band to buy 15,600 seedlings to replant the hectares where infested trees were harvested.

Pointing out Lytton First Nation's experience in forestry, Aleck says the band is familiar with the challenges involved in managing their mixed forests of pine and Douglas-fir.

"We've dealt with root rot and other insect pests before," she notes. "Now we're concentrating on mountain pine beetle before it gets any worse. We want to get the value out of the beetle-infested timber while there is still time, and we need to protect our forestlands that are still free from mountain pine beetles."

But Aleck goes back to the point that Lytton First Nation has built good relationships with their forest-sector neighbours operating in the Fraser River canyon country. She says that by using resources available through the mountain pine beetle program, Lytton First Nation is working from a proactive position to practice good forest stewardship, protect a valuable fibre supply that benefits the band, and do their part to implement beetle control measures that will help forests across the region.

Harvesting plays a role in Lytton First Nation's efforts to manage mountain pine beetle infestation

"I think the infestation is slowing down on our reserve land, at least," Aleck says. "The harvesting last year really helped, and now we'll be able do some more, then replant for a future forest."

Esketemc First Nation doing their part to manage beetle epidemic

The Esketemc First Nation values forest stewardship, and so it is not surprising that they are well into implementing a mountain pine beetle management plan.

"Mountain pine beetle have severely infested forests on Esketemc reserve land," says Bill Young, a consulting forester with the band. He explains that in 2003 the Esketemc band decided to build a relationship with Natural Resources Canada through participation in the Mountain Pine Beetle Initiative. The process of surveying reserve land for infestation, and even some sanitation harvesting, got off to a solid start last year.

Esketemc First Nation member conducts mountain pine beetle probe on reserve land

The Esketemc First Nation is located about 50 kilometres south of Williams Lake, in the Fraser River drainage. There are about 715 band members. Young notes that over the years the Esketemc First Nation has built up a strong forestry infrastructure in silviculture.

Alkali Resource Management Ltd. is a band-operated company that handles a wide range of forestry contracts, including mountain pine beetle counter-measures. So, the Esketemc can draw on their own band members to do much of the work involved to implement a beetle plan for 2,700 hectares – activities such as surveying and logging.

Esketemc First Nation member marks infested tree for treatment

Esketemc's mountain pine beetle project this year represents about $60,000 from the Mountain Pine Beetle Initiative, plus another $215,000 from the band. It is an unusually high band contribution for a mountain pine beetle management plan. That's because Esketemc First Nation funds the bulk of harvesting associated with mountain pine beetle control, Young explains.

"We started surveying last year, and did some more this spring," he says. "Now we've assessed all 18 parcels of land that comprise Esketemc reserves."

Six Esketemc members worked on the surveys. They walked through the mixed stands of lodgepole pine and Douglas-fir that dominate the area, marking and counting infested trees. They set up boundaries identifying areas where treatments will be implemented.

"The infestation was too advanced for things like pheromone baiting," Young explains. "Sanitation

and salvage harvesting were really the most practical means of addressing the epidemic."

An eight-person Esketemc crew worked on logging beetle-infested trees. The mountain pine beetle management plan calls for a further 500 hectares to be logged this winter. On Esketemc Reserve #9 horse logging was used in culturally sensitive areas. Young estimates that the Esketemc have completed about 30 per cent of beetle-related harvesting, and he is confident that they can finish the process in time to help address the epidemic on reserve land.

"The Esketemc band is doing this to be good forest stewards," he says. "Forestry is important to this First Nation, and they know it's important to their neighbours in the area, too."

Young points out that the band has buyers interested in their beetle-wood, something he credits to good relations with other members of the region's forest sector. West Fraser Timber, Riverside Forest Products, and S&P Lumber – all located in Williams Lake – have expressed interest in buying wood harvested on Esketemc land.

As for the future, Young says the Esketemc First Nation will implement a strong reforestation component of their mountain pine beetle management plan. In addition, he says the band is exploring ways to combine forest fire risk management with mountain pine beetle treatment measures, such as sanitation harvesting.

Adams Lake Indian Band beetle work benefits neighbours

A lot of people drive east and west along the TransCanada Highway through picturesque pine-forested hillsides of British Columbia's Shuswap country—but the encroaching mountain pine beetle infestation could bring an unwelcome change in the view, from green to red. It is a threat challenging everyone with a stake in the region's forest sector, including the Adams Lake Indian Band.

"Beetles were showing up on reserve land about a kilometre from Chase," explains Lennard Joe, owner of Grizzly-Man Resource Management Ltd. "We knew we had to do something before the beetle flight in July, or we would start seeing more infestation in Chase, and on the higher slopes visible from the highway."

Situated along the South Thompson River corridor adjacent to the municipality of Chase, the Adams Lake Indian Band has lived with the forest ecosystem for thousands of years. Concern for forest stewardship runs deep in today's band, too. It is the spirit sustaining a well-established forestry program that creates training and employment opportunities for band members.

Reforesting for the future is part of a beetle management plan

The Adams Lake Indian Band is taking a proactive stand against the current mountain pine beetle infestation to protect their natural heritage and future

forestry livelihood. To that end, the band applied successfully to participate in the Mountain Pine Beetle Initiative managed by Natural Resources Canada. The initiative is supporting the band's beetle work this year with $6,100 in funding; the band will contribute $1,500 in services and costs. Joe's company managed the band's mountain pine beetle project.

Work began last spring to survey forest conditions and assess the degree of infestation. Information collected through the survey provided the basis for determining how best to go about curbing the spread of the beetles.

"Starting in May, we employed two people to survey about 60 hectares," Joe says. "We found a relatively light infestation, so we build our beetle management plan around fall and burn, instead of harvesting."

Joe points out that band members also conducted a beetle probe, a more intense survey to identify specific trees for fall and burn. The work produced a GPS spreadsheet and a map of the probed area to record the location of mountain pine beetle-infested trees.

"We're not talking about valuable timber at this location," Joe adds. "Our entire focus was to keep the beetles from spreading off Adams Lake Indian Band land before the July flight and becoming a more serious problem for everybody in the community."

Since the infested pine trees grew in mixed stands alongside Douglas-firs, a bait-use plan presented a logical way to curb the infestation before it intensified. Bait use involves hanging pheromone baits in infested pines. Pheromones chemically attract beetles to the baited tree, which can be felled and burned to kill the concentration of insects.

"Our entire focus was to keep the beetles from spreading off Adams Lake Indian Band land before the July flight and becoming a more serious problem for everybody in the community."

**Lennard Joe,
Grizzly-Man Resource
Management Ltd.**

Band members hung pheromone baits in June in trees at locations on lower slopes, in hopes that the beetles could be contained before spreading to higher ground. Three additional band members did the ensuing fall and burn work, destroying about a dozen beetle-infested pine trees.

"The results look good so far," notes Joe. "It looks like we were successful in preventing a lighter infestation from becoming worse and spreading to trees in town or to the higher slopes."

Joe credits Adams Lake Indian Band for taking advantage of the Mountain Pine Beetle Initiative to act fast to curtial the spread of the insects.

Band sawmill supports local jobs

Sugar Cane Wood Products, owned and operated by Williams Lake Indian Band, is a value-added mill producing pallet lumber primarily for the California fruit and vegetable market.

It's a market far from their mill, located about eight kilometres south of Williams Lake in British Columbia's interior.