

Treeplanting: A Prince George case study

Glen Thielmann, Feb 1, 2011



Figure 1: A treeplanter packing trees to the jobsite -- her piece of a burnt over clearcut in the Bowron Valley, c. May 1986. At 12¢/tree, she hopes to plant 1500 trees and make \$180 before deductions.

Photo source: Donna Hartmann

Figure 2: Treeplanting is a social but, at the same time, solitary activity completely removed from the mainstream culture. It allows people from all over the country and of diverse backgrounds and experience to come together and participate in something unique: hard labor under adverse, stressful conditions in a devastated natural environment. The rewards are immense and more than simply monetary. Many aspects of the job require an inner revolution on the part of the planter. The possibility of personal development and the chance of a new and richer sense of fulfillment make the hard road traveled by planters a little more comforting.

Paul Raven in Cyr, 1998, p.107¹

As you may have gathered if you've looked into the history of forest management in BC, there was not always a requirement to replant areas that had been logged in BC. It was common to simply rely on nature to fill in the gaps left by harvested trees, especially in highly productive coastal forests. New growth, new seedlings, would spring up in the ground now opened to sunlight. Species suited to disturbances and early succession would take over the "new" forest -- alder, aspen, even pine if there was any fire involved. Unfortunately, this process,

¹ Cyr, H. (1998). *Handmade Forests, the treeplanter's experience*. Gabriola Island: New Society Publishers

while it allowed for vegetation to return, did not always result in tree species returning that would ensure a steady timber supply in the future. The mix of species and the gradual maturity of a forest, while ecologically sound, did not fit the timeline and economic goals of our society.

In the 1980s the government recognized a greater social and economic obligation to inventory and restock areas that had been harvested and began a larger effort to replant areas than had been Not Sufficiently Restocked (NSR). The government also started to require that new clearcuts and logged areas be replanted with nursery-raised seedlings. Until 1987, they contracted and supervised this work themselves, until a new process (FRDA I, the Forest Resource Development Agreement of 1986-1991) saw this shift to the tenure holders. In 1987, reforestation became the responsibility of forest companies, and it led to a dramatic increase in the number of trees planted each year and the number of treeplanters required to put these seedlings in the ground. FRDA I, FRDA II (1991-1996), and later Forest Renewal BC, would continue the government’s role in studying and supervising the overall reforestation programs in the province, but the work itself became an industry unto itself with money to made in seedling production, storage, transportation, silvicultural contractors, equipment manufacturers, monitoring and contract-letting, and of course the job of planting trees in the ground. While some treeplanters were paid hourly wages or by the total amount of ground planted, most were paid by the tree. This was checked by a quality control employee from either the Ministry of Forests or the forest company that had made the clearcut being planted.

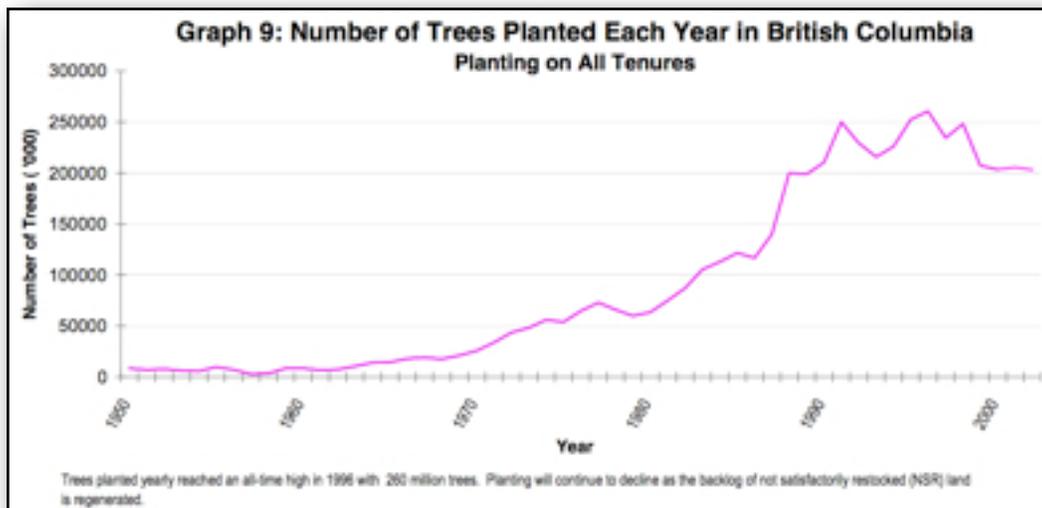


Figure 3: Trends in Treeplanting²

The massive Bowron Clearcut in central BC, the result of a massive spruce bark-beetle infestation, was by itself a megaproject for treeplanters. 15 million cubic metres of “green-attack” (still solid) spruce came out of the Bowron from 1981-1987, enough wood to build almost a million small houses. During the peak, 700 truck loads a day were coming out of the Bowron Valley on redesigned one-way roads. Most of the 48,000 hectares were replanted (with 62.5 million trees!), and some was left to natural regeneration.³ One can imagine how many treeplanters and treeplanting companies earned their wings in the Bowron.

² http://www.for.gov.bc.ca/hfd/pubs/docs/mr/annual/ar_2001-02/tables/graph9.pdf

³ <http://www.forestry.ubc.ca/fetch21/Upper%20Bowron%20Spruce%20Beetle/ubsbo.htm>

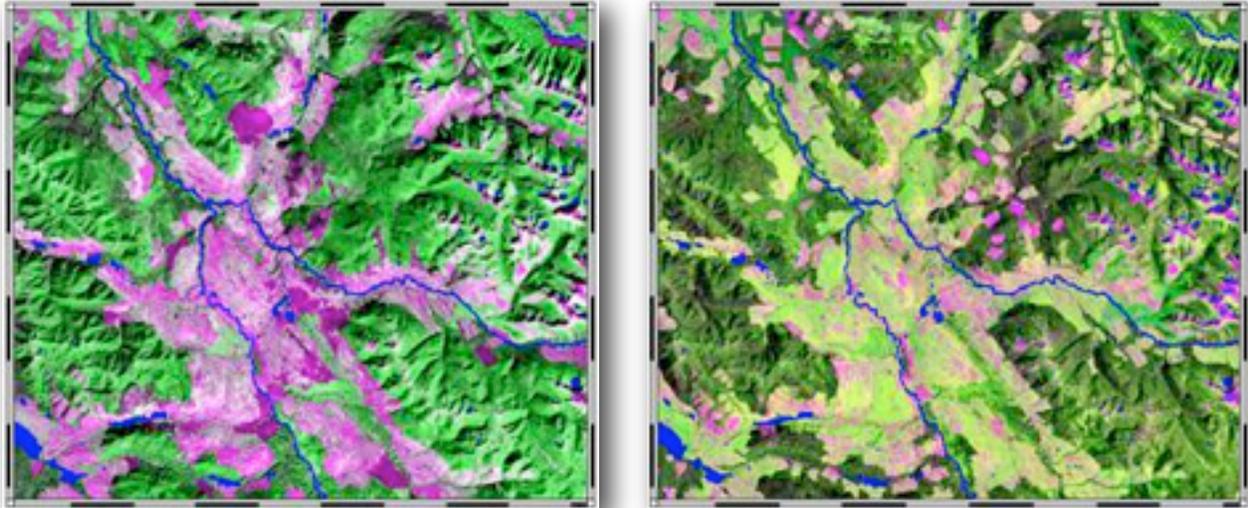


Figure 4: The “moonscape” of the massive Bowron clearcut (a salvage operation in the wake of a spruce beetle infestation). (L) 1986 and (R) 1992. Green is healthy vegetation, pink is barren with little or no vegetation.⁴

The 1980s and early 1990s were boom years for treeplanting, with many contractor companies starting up and seeking youth willing to work hard in rough conditions. This appealed to many college students, migrant workers (from other provinces and other countries), and even a few “back-to-the-landers” who saw treeplanting as a chance to experiment with intentional community (like hippies in the 1960s counterculture, but in the 1980s). In the 1970s and throughout most of the 1980s, treeplanting camps were basic and had few safety requirements. Planters often took turns cooking, hauled water from streams, and used their own vehicles and equipment. New Worker’s Compensation Board mandates in 1988 meant that camps soon became safer, more bear-aware, had hot showers, outhouses, filtered water, and paid food service (rustic catering that usually included a camp cook and helper). Treeplanting companies (who had successfully bid on the contract to plant a specific area) supplied most of the necessary equipment, usually including trucks, vans, crummies (from the word *crew*, basically a truck with a deck and benches in the back for the crew) and rolligons (all-terrain transport vehicles), quads, or cook buses. Keeping all that equipment in good order, and complying with worker safety regulations was expensive and cut into profits, so stories of “cutting corners” and passing on costs to treeplanters were very common. It did not take long for contractors and silviculture contractors to gain positive and negative reputations, but a steady supply of contracts and willing labour allowed unscrupulous companies to survive. One BC treeplanter wrote a book for new planters about how to succeed in this challenging environment.⁵

The lure of making \$300/day in 1990 seemed like the goldrush to many young men and women, but, like the goldrush, not everyone got rich. That \$300 typically required putting in 1500-2200 trees at 12-20¢/tree every day. Most shifts lasted at least a week, sometimes 2 or more without a break. Days started with a breakfast call at 5:30, the crummy heads from camp to the block at 6:30, walk out to one’s strip or piece (the area a treeplanter was responsible to plant), sometimes trips back and forth from a central cache where the trees are kept cool, and then the planting could start at 7:30 or later. Wind it down at 5:00, get back to the truck, check and stock the caches, tally the day’s totals, and head back to camp for 6:00. These “perfect” days were broken up by washed out roads, vehicle break-down or equipment failure, bears on the blocks, visits from the company’s quality checker (someone who verifies that the trees are correctly planted), the foreman stopping by on a quad to drop

⁴ <http://www.gis.unbc.ca/courses/geog432/projects/2002/newse000/index.htm>

⁵ Goerz, B. (1996). *To Plant or Not to Plant That is the Question*. Ft. St. James: Little Cabin Books

off more trees, small injuries, fighting off mosquitoes and blackflies, lunch and potty breaks, and the unpredictable drama of having a dozen or more interesting people all laying out their raw emotions and physical theatrics on a daily basis. The evenings were filled with clean-up, eating, repairs to equipment, mending garments, kitchen duty, reading, writing, conversation, games, flirting, fighting, bible studies, romantic trysts, and some really weird stuff. Aside from the financial and social benefits, treeplanters felt like they were giving back to the environment as well. It was if they were restoring what they forest companies were taking away, even if these actions were part of the same cycle of resource management.

Crews gave themselves (or were given) colourful names that reflected some of the rigorous demands of the job and also the humor and angst of youth culture. Here are some from the early 1990s: Bareroot Hackers (bareroots are big seedlings with exposed roots that can be hard to plant), Wolverines, Lost Puppy Crew, J-Root Factory (a j-root is a poorly planted tree), Swinepigs, Detergent, Duff Muffins (duff is the humus that is removed when planting trees), Screef, Reef, and Chief (screefing is the act of removing humus, Reef can refer to marijuana or the reefer -- a refrigeration truck used to store and cool seedlings), Digger's Dozen, Black Dog Label Project, Voder Riders from Hell (inspired by a foreman's Toyota), Xerophytically Speaking (a xerophyte is a plant that can survive for long periods without water), Godsquad (the name stuck even after these bible college members "lost their religion"), Terminal City (named for Vancouver but also a movie where citizens wallow about in a decaying world of discarded consumer goods), Red Hot Cherry Bendover Gang (an all female crew, bending over all day is required to put trees in the ground).⁶



Figure 5: A cook-tent (with trailer attached) at a treeplanting camp
photo source: Shane Cooke

Planters had to learn speed and pound hard for many weeks before they started to make real money, and many did not last, catching a ride back to town and hoping that what they had earned so far would cover their camp costs. Those who survived would often not see handsome profits until their second year -- the rookie year was often a write-off. The repetitive, jarring labour was hard on bodies, especially the joints. Swollen and sore wrists were the most common complaints, but inflammation (bursitis) of the elbows, knees, and ankles were also a concern. Other common injuries included hyperextended knees, twisted ankles, rashes from the bug repellent and pesticides used on seedlings, strained backs, sunburns, and shredded fingers from shoving them in the

⁶ G. Thielmann. (2003). The Treeplanter Camp and Crew: An Organizational Analysis. Unpublished MEd paper.

ground all day. Gloves slowed down the planting, so many compromised pretty fingers with speed by duct-taping each finger on their “tree-hand” every morning. Planting in or near the snarb (dense brush and slashpiles) meant bruised shins from hidden logs and itchy welts from the detachable thorns of Devil’s Club. Planting in a burn (clearcut prepared for reforestation by a light “prescribed” burn) meant soot everywhere and coughing up black phlegm. Despite the physical demands, many treeplanters still testify that the mental and emotional aspects of the job were the most challenging and required the most tenacity in order to succeed. Not all “high-ballers” (fast, profitable planters) were in top physical form, some simply “wanted it” fiercely. Every once in a while planter would get some real “cream” or “gravy” (easy ground) and would get to be a high-baller until the land or trees ran out. Knowing how many trees to load into one’s bags at the cache (boxes of trees covered with a reflective tarp to keep the seedlings cool) meant the difference between traveling light and easy across one’s piece and finishing back at the cache empty or being stuck at the top of a big hill with no trees, or carrying around a heavy load of trees all day. With this experience and the novelty wearing off (chaos, romance, camp food, freedom), veterans came back ready to earn money (and enjoy the other stuff, too).

Figure 6: Treeplanting is about endurance, not physical but mental. It can mean solitude, thirst, blackened nails, and frustration. Or perhaps poor management, bad food, and complicated politics. But ultimately whether you fail or succeed is up to you. Karen Henrion in Cyr, 1998, p.567



Figure 7: Treeplanters

(L) planting through thick duff near the treeline. Photo source: Shane Cooke. (R) The legendary “high-baller” Franz Otto. Photo source: unknown (part of the legend, perhaps)

Many BC towns filled with treeplanters from May to August, and with them came social tensions. They stuffed piles of filthy clothes covered in pitch and bug repellent into laundromat washing machines, and sought out diners, pubs, and fast food joints to gorge their enormous appetites and slake their thirst. Youthful and rowdy, some treeplanters were hard on their hotel rooms and made a big splash at local bars. In Prince George, 1989, a hub of the treeplanting boom, there were a number of downtown businesses with signs posted reading “NO TREEPLANTERS.” A public debate (news articles, letters to the editor, discussions among people) gradually recognized that if treeplanters were respected and encouraged to act as if Prince George was a home away from home, they would do less damage and would in fact be of economic benefit to the community. More downtown business signs read “TREEPLANTERS WELCOME” in 1990 than the “NO TREEPLANTERS” signs the year before. Church groups offered meals for planters or arranged billets so they would not feel so disconnected from home life. Treeplanting companies began to see their employees as a community and they organized

⁷ Cyr, H. (1998). Handmade Forests, the treeplanter’s experience. Gabriola Island: New Society Publishers

games, competitions, calendars, and non-work outings. Some businesses even got started or were able to thrive with the help of a little “counterculture,” like Other Art & Cappuccino in Prince George, that, as the name suggests, was a coffee shop that featured art. It was a popular place for meetings and discussions between progressive or just “different” folks who were looking to make a difference in the community (personal notes). Second-hand clothing stores, surplus equipment shops, restaurants and bars were also on the front line for benefits from treeplanter traffic.

Treeplanting changed and then slowed down in the 1990s. Again, like the pattern seen in a goldrush, the small contracting companies with interesting names were bought up or outbid by larger treeplanting companies that also offered other silvicultural services and forest consulting. Partly a response to a financial crisis in Asia (a slowdown in their economy), lumber prices fell the late 1990s. This decreased the need for cutting and replanting. At the same time, Forest Companies tried to become more efficient with reforestation, planting fewer stems per hectare with the confidence that mortality would fall and productivity had risen (this remains to be seen). In 1995 there was a shift to “f-layer planting.” Research by seedling growers and silviculturalists suggested that planters didn’t need to “screef” or scrape through the duff in order for trees to thrive, they could plant right in the duff. Trees got smaller, too, with bare-root seedlings (fibrous dangly bottoms) being replaced mainly with container plug seedlings (popsicle-shaped bottoms). Full acceptance of f-layer planting and seedling changes meant that production sped up and less planters were needed and the planting season was shortened.

In the spring of 1996, like every year for the past twelve or more, hopeful treeplanters arrived in Prince George from Vancouver, Moose Jaw, Montreal, and more exotic locations like Nigeria. They bought shovels, bags, and boots at local stores, some new, some used, let the treeplanting companies know they were ready to get hired on, and set up their tents in the city campgrounds. Four problems turned this into a disaster -- the changes in planting noted above, the cold weather, a glut of workers, and a slowdown in local reforestation. Late snow and cold weather hit the area in April, and the ground was still frozen in the woods, at least some of the places that had been lined up for the “spring plant,” and most of the crews who were ready to descend on the wilderness were already filled up with veterans. As well, much of the harvest (and thus reforestation) had shifted to more remote areas of the interior, and Prince George was not the hub it used to be, even if the planting companies had their offices in town. Out in the woods, the backlog of “Not Sufficiently Restocked” areas was steadily being fill-planted, and province-wide planting had reached its peak and was starting to decline in 1996. The newly arrived rookies froze in their snow-covered tents and had to rely on local charity until they arrange for a ride back home. One foreman recalled driving in to the city campground to pick up his crew and was swarmed by planters desperate for work. A few of these campground hopefuls found work, the rest returned home penniless, or left to find work elsewhere. Prince George’s glory days of treeplanting were over.

The reforestation industry would no longer stand out as a wild subculture and employment pull-factor in Prince George. The yearly circus of bandana-wearing hipsters, sunburnt, smelly, and looking for fun on their “town days” was just a memory. Their legacy, though, more than just the business for laundromats and duct-tape shelves at hardware stores, paved the way for a new kind of culture in Prince George, and got the local residents used to the idea of 19-25 year olds making a dent on the town. This was excellent timing as the new University of Northern British Columbia opened its doors in Prince George in 1990 during the peak of the “treeplanting years” in the Central Interior. The university-age energy of the treeplanting subculture became more grounded within an actual university community.

The downshift in treeplanting and forestry in general was recognized by the government in the late 1990s. Forest Renewal BC (FRBC) funds were used to retrain treeplanters for other professions by paying for tuition and living allowances for students in designated programs. Boom and bust cycles are hard on towns and workers, so it was fitting that an industry that had fed so much money into provincial coffers should also help unemployed forestry workers get back on their feet. Part of sustainable forest management is the recognition that environmental, social, and economic values need to be in balance. This is sometimes described as the *three pillars of sustainability*.



Figure 8: The Three Pillars of Sustainability. Source: Warren Wilson

Fast forward to the 2000s and a modest treeplanting boom has occurred in the B.C. interior from the wake of the Mountain Pine Beetle epidemic. The effect will be temporary, however. The Annual Allowable Cut (AAC) was increased in BC's Interior so that the attacked and dead pine could be salvage logged. The AAC for the Prince George Timber Supply Area went from 9.3 million cubic metres in 2001 to 14.9 million cubic metres in 2004. In 2011 it has dropped to 12.5 million cubic metres and will continue to fall as the MPB epidemic continues to wind down.⁸ Not all of the allowable cut has been cut, however. Some areas were left alone for economic and ecological reasons. The use of beetle-kill pine as biofuel has renewed interest in maximizing the AAC in recent years.

With the AAC shifting to other areas of the province, the treeplanting industry has had to adjust accordingly. Many of the contractors that started out as planting companies have evolved to provide a range of silvicultural services, resource management consulting, data collection, and computer mapping. Retaining workers for treeplanting is even a challenge. Many migrant workers or young folk looking for seasonal work have gone to the oil & gas fields of northern BC, Alberta, and Saskatchewan for the the high wages and better prospects for employment. Those not working in the "oilpatch" directly can often find work in the spin-off industries. In 2007, some fast food restaurants in Alberta were paying entry-level workers \$16/hour, higher in labour-short Fort McMurray. Although living expenses are higher in the cities and the oil-towns, these wages have had great appeal among underemployed forestry workers in B.C.

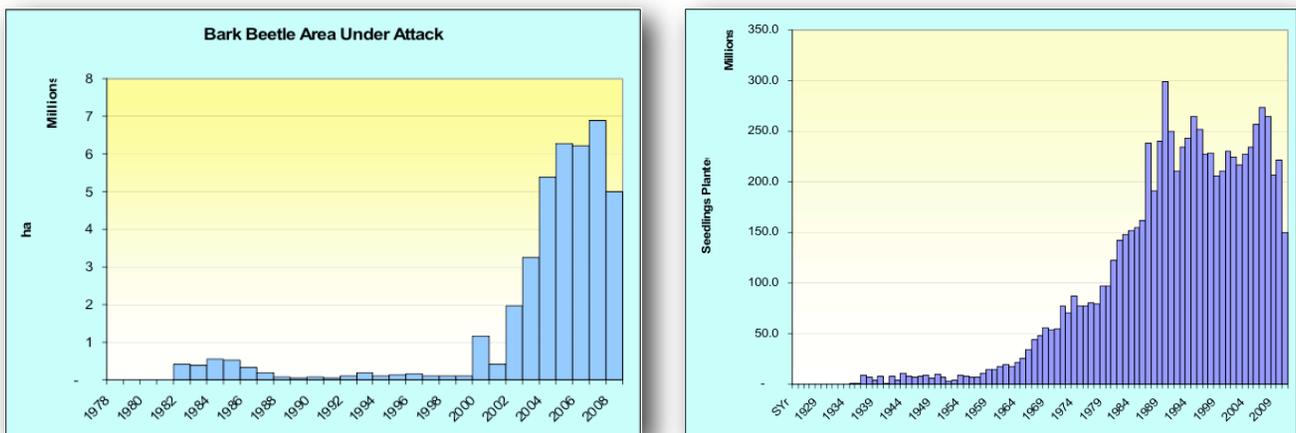


Figure 9: Mountain Pine Beetle and Reforestation

(L) Area under attack by the Mountain Beetle in BC: 1978-2009. (R) Seedlings planted in BC: 1925-2009⁹

⁸ http://www2.news.gov.bc.ca/news_releases_2009-2013/2011FOR0002-000016.pdf

⁹ Excerpt on Industry Trends from Western Canada Silvicultural Association, 2011 Report

While treeplanting has resulted in economic benefits and interesting societal influences, sometimes the impact can be more serious or contentious. A recent example of how globalization of labour affects BC helps illustrate this point. In 2010, about 30 landed immigrant workers from central Africa and elsewhere were treated as slave labour in an interior treeplanting camp near Golden, B.C. with deplorable conditions. Their leaked story includes allegations that they were forced to sleep in rail containers, drink creek water, and eat two poor meals a day while subject to racism and death threats. When their cheques bounced they came forward to complain, resulting in the B.C. Employment Standards Branch investigating and ordering the Surrey-based employer to pay the workers \$225,000 in unpaid wages.¹⁰

The tale of Treeplanting should be a good news story, though. The pervading sense of purpose reported by planters is that they were starting new forests, regenerating habitats in places that they felt had been devastated by clearcutting. Their efforts are part of the sustainability cycle and an effort to coax cleared hillsides back to a stage where they can contribute to the timber supply and remain a healthy forest. Recent attention to climate change has put even more pressure on forest companies to restore forest ecosystems -- the ability of BC forests to capture and store carbon is enormous, especially in the productive coastal rainforest. The treeplanters are also rebirthing ecosystems that will scrub our air and filter our water as part of their overall economic and environmental dividend. Treeplanting is not dead in Prince George or B.C. For those of you looking for adventure, the simple life of step, stab, reach, plant, stomp may be waiting for you. I looked at a YouTube video of one crew's experience¹¹ and, although I didn't know anyone in the video, I felt a rush of emotions as I remembered my own treeplanting experiences. I made some great friends in the woods, including the woman who is now my wife, and learned a lot about myself. One of the things I realized is that I could not do physical labour forever -- I made the decision to pursue teaching as a career while tripping through slash and fighting off mosquitoes on forlorn clearcut 300 km north of Prince George.

¹⁰ <http://www.cbc.ca/canada/british-columbia/story/2011/01/24/bc-tree-planters-paid.html> or <http://www.thestar.com/news/canada/article/846414--b-c-tree-planters-allegedly-drank-creek-water-had-no-toilets>

¹¹ <http://www.youtube.com/watch?v=xoYEGvKNI88>