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Budworm, economics and ecology

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Paper: Battle against the insect that threatened the province's forests and the birth of environmentalism examined

A1 QUENTIN CASEY
FOR THE TELEGRAPH-JOURNAL

It was a sparse settlement, consisting of just 16 buildings. But unlike most tiny communities of its size, "Budworm City" had its own airstrip.

ENLARGE PHOTO



Cole Burston/The Daily Gleaner

UNB PhD student Mark McLaughlin holds a copy of *Acadiensis*, the Atlantic Canadian History Journal at the Harriet Irving Library in Fredericton. McLaughlin has published a piece examining the birth of an environmentalism in New Brunswick and spruce budworm spraying.

During the early 1950s, Budworm City was command central in the province's so-called "Battle of the Budworm", a massive insecticide spraying program that saw vast tracks of New Brunswick forest covered with DDT.

Budworm City, which was built by the New Brunswick International Paper Company (NBIP), sat north of Edmundston, near the Quebec border. There, researchers, pilots and their families spent the summer months in rural isolation, part of a highly co-ordinated DDT spraying campaign.

That campaign, aimed at killing the tree-munching eastern spruce budworm, carries a dubious distinction: It was one of the largest and longest sustained aerial insecticide-spraying programs in the world.

It also helped trigger the modern environmental movement in New Brunswick, particularly after DDT was shown to be killing the province's prized game fish, the Atlantic salmon.

That's the conclusion of a recent scholarly article by Mark McLaughlin, a PhD candidate at the University of New Brunswick.

McLaughlin's research reveals a period that had all the trappings of a war. On one side stood pulp and paper companies and the provincial government, which all argued that DDT spraying was essential for preserving New Brunswick's forests and, thus, its forestry sector.

In the other camp was the fledgling environmental movement, armed with new research on the poisonous impacts of DDT. And then, of course, there were the hundreds of planes flying the equivalent of bombing missions over northern New Brunswick forests.

At its core, the Battle of the Budworm was more than a fight against small budworm caterpillars. It was, as McLaughlin shows in his PhD work, a battle between economic considerations and ecological concerns.

And for McLaughlin, the Battle of the Budworm serves as a "cautionary tale", particularly as the province finds itself engaged in a similar debate over shale gas exploration and hydraulic fracturing.

Initially, efforts were made to find a "natural" solution to the budworm problem. But in the summer of 1951 the epidemic worsened in northern New Brunswick.

The New Brunswick International Paper Company, which was leasing Crown land in the area, quickly pushed for aerial spraying - a technique previously tested in Ontario and the western United States.

Between late 1951 and early 1952, NBIP built an airstrip and a collection of buildings in the wilds of northwest New Brunswick. The Dalhousie-based company then hired 21 pilots, the majority of them American. By the spring of 1952 those pilots were in the air - aboard their Stearman biplanes - spraying vast tracks of forest with DDT, a "miraculous" insecticide.

With a "kill rate" above 99 per cent, DDT appeared to be the silver bullet the NBIP was seeking. Not surprisingly, rival pulp and paper companies also wanted to spray their Crown lands.

In response, the provincial government partnered with four pulp and paper companies (NBIP, Fraser, Irving and Bathurst Power and Paper) to form Forest Protection Limited (FPL).

"The budworm epidemic continued to get worse throughout the 1950s, so FPL built more airstrips, hired more pilots, and sprayed the DDT mixture over much of New Brunswick's Crown lands for the rest of the decade," writes McLaughlin in his article, which appeared in a recent issue of *Acadiensis*, an Atlantic Canadian history journal.

"In the spring of 1957, FPL's biggest spray season of the 1950s, more than 200 planes were involved in anti-budworm operations and more than 2,000,000 hectares were sprayed."

Many of those spray missions were based out of Budworm City, the hub of New Brunswick's aerial insecticide campaign.

Thaddee Renault, a former federal researcher, spent 10 summers in Budworm City during the 1960s.

His research at Budworm City began each year in May, just as the snow was receding. In late June he would travel home to Fredericton, gather his wife and five children and return to Budworm City until the end of August.

There they would live among researchers, students, pilots and other families.

"It was a very congenial atmosphere. The families got along quite well," Renault recalled in a recent interview. "The kids enjoyed their life up there so much ... They were at that age where they could amuse themselves with very little.

"I have very fond memories."

The families in Budworm City lived in cottages and drew their electricity from generators. The children rode bikes, organized small concerts and swam in the nearby lakes.

There was only one major drawback: black flies.

Every half hour or so, the children would return to their home cabins to be lathered with insect repellent

"We'd use about a bottle of that everyday on the kids. It was unimaginable how bad those black flies were," Renault recalls. "Without that repellent, I don't think we would have been able to live up there."

Still, Renault says his children recall fondly their summers spent in Budworm City. "They enjoyed the simple things," he says.

But just as the children in Budworm City were enjoying New Brunswick's wilderness, the spraying of DDT was actually destroying it.

Opposition to the chemical spraying campaign first emerged from members of the province's fishing and hunting organizations.

Their concerns were eventually supported with scientific evidence, courtesy of two New Brunswick biologists: C.J. Kerswill and P.F. Elson. In 1955, the pair reported that an extreme number of young salmon were dying in streams sprayed with DDT.

Then came the South Esk incident.

On June 9, 1956, FPL planes sprayed forested land near a federal fish hatchery in the parish of South Esk. The DDT mist killed nearly one million young salmon and trout, a quarter of the hatchery's fish stocks.

The incident was called a "shocking massacre" and added significant fuel to the province's DDT debate.

But even with growing evidence of DDT's harmful impacts, many within government and industry remained in favour of aerial spraying. For proponents, the spraying of DDT was critical for maintaining New Brunswick's forestry sector, which at the time was the biggest source of jobs in the province.

"Justifications for the spraying program made it clear that, for supporters of the program, some collateral damage was acceptable," McLaughlin concludes.

The tide of public opinion, however, was turning.

The modern environmental movement was spreading across North America, and New Brunswick was not immune to its influence.

"By the 1960s, it became more difficult for North Americans to ignore the consequences of 'modern' life on natural environs and human health, particularly in their own backyards," McLaughlin writes.

In New Brunswick, he argues, two decades of opposition to the FPL spraying program spawned a "new environmental consciousness".

Out of that consciousness grew the Conservation Council of New Brunswick. Founded in 1969, the Conservation Council was the province's first environmental organization. It was also key in pushing for the creation of a provincial environment department in 1975.

"While forest economics took first priority over ecological consequences during the first two decades of the spruce budworm spraying program, the growth of environmental consciousness in New Brunswick eventually made 'the environment' a legitimate issue," McLaughlin concludes.

By the end of 1968 FPL had stopped using DDT. And although the company continued to spray other controversial chemicals, the DDT chapter in New Brunswick's aerial spraying history was over.

Decades have since passed, but McLaughlin argues that the Battle of the Budworm holds lessons for the modern day. That's particularly true, he says, as New Brunswick debates the economic and environmental consequences of shale gas development and hydraulic fracturing, or "fracking" as it's commonly known.

Oil and gas companies are now looking to draw natural gas from New Brunswick's shale beds. It's an industry that relies heavily on fracking, which involves pumping millions of litres of fresh water - often mixed with sand and chemicals - underground to break up rock formations and free natural gas.

In New Brunswick, many citizens are concerned about the environmental impacts of fracking - particularly on fresh water supplies.

"The Battle of the Budworm serves as a cautionary tale for resource extraction and resource management," McLaughlin said in an interview.

"We as a society need to slow down and consider all of the possible consequences ... There's no reason why we should be making similar mistakes."

McLaughlin, now in the final year of his PhD work at UNB, grew up in California Settlement, a small community about a 10-minute drive north of Perth-Andover.

There his father and uncle ran a 100-acre potato farm. He says it was life on that farm that piqued his interest in environmental history.

"They were always trying to impress upon us that one can't abuse and misuse the land, because it was sustaining us as a family," says McLaughlin, who recalls hand-delivering dirt-covered potatoes to his mother in the family kitchen.

"We always need jobs and a good economy, but we also need to realize that the environment is the economy... If we don't take the time to consider the environmental consequences, what the heck are we going to be leaving for future generations?"

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Very interesting, and it brings back so many memories of growing-up in Northwestern New Brunswick in the 1950's. Bravo for the research and very best wishes to Mr. McLaughlin.



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Bill Akerley, Ottawa on 03/01/12 10:27:05 AM AST

"We always need jobs and a good economy, but we also need to realize that the environment is the economy... If we don't take the time to consider the environmental consequences, what the heck are we going to be leaving for future generations?"---Mark McLaughlin

Right on Mark!
One has to wonder how such a sensible approach is not embraced by all.

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