One River
MANY RELATIONS

Summer 2012: Issue 1

Environment, Health and Indigenous Communities in Alberta and the Northwest Territories

Working with Outside Researchers

Patrck Simon
Environment Manager for Deninu Kue First Nation

Photo courtesy of Andrew Miller

There are positive aspects to working with outside researchers. It doesn't seem like it at the beginning when you're running around, trying to understand and keep up to them because they are taught this way to do things in their own ways. We have a different type of approach when it comes to knowledge and knowledge gathering and the relationship with the environment. It's somewhat challenging at the beginning, quite a lot of exercises in understanding, some frustration, but as we began to develop a relationship with them, and exert a little more of our abilities, we became more receptive and our relationship has gotten way better.

One positive aspect is just getting an understanding and appreciation of a knowledge-based way, and incorporating into our knowledge based way and coming out with something we find valuable. This is the thing called "TK Science": a collaboration with western science.

When you take a look at the science on its own, and when you take a look at the traditional knowledge, each are valuable in their own way, but when you put them together, they become much more valuable. It gives you more comprehensive knowledge base. So it certainly gave us an appreciation of our own knowledge and value, and it also gave us an appreciation of scientists and the research they do and the outcomes of

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Brett Tendler, fish scientist and an interested community member. Photo: Andrew Miller

Welcome to One River Newsletter:

Insights and Intentions for the Project

Andrew Miller & Stephane McLachlan
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Steph McLachlan. Photo courtesy of Anna Weier

Scientists generally do a pretty crummy job of getting back to community members with results. OK, fine: they do a really bad job. It doesn't matter whether we are talking to community members in Fort Chipewyan, Fort Smith or Fort Resolution. It's the same experience. Scientists collect their data and then they disappear. Forever. Sound familiar?

We are part of the Environmental Conservation Lab at the University of Manitoba. And we are trying to do science differently. Our work focuses on environmental justice and health. And it links Western Science with Traditional Knowledge. And we are doing it in close collaboration with local communities along the Athabasca and Slave Rivers.

Andy Miller and video-guy Michael Tyas have been interviewing Elders, fishers and other community members in Fort Smith and Fort Resolution. Michael and Stef McLachlan have been conducting similar interviews in Fort Chipewyan.

We are creating a newsletter that addresses environmental and health issues facing Indigenous communities along the Athabasca, Peace, and Slave Rivers

All these interviews focus on changes in the health of wildlife, the environment and local people. We explore what the causes of these changes are and what can be done about them.

Over the last year we have also tested wildlife

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Andrew Miller: Photo courtesy of Andrew Miller

Culture Camps

Sheldon Birnie
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For children to appreciate traditional culture, it is often necessary for them to experience it first hand. In communities along the Athabasca, two women have been working with their families, friends, and bands to make that happen.

"We have culture camps, usually in August," explains Dolly Simon of Fort Resolution, NWT. The camps run in mid to late August. This year marks the 7th year that the program has run. "What we do is we encourage people to come out and camp during that week at Mission Island. We set up venues with local instructors teaching at each of these venues. People from the community come out and camp on the island, and they do what they want to do."

"It's basically so we don't forget our culture - how we used to do things.," says Dolly, who works for the Deninu Kue Community Wellness Program. "Now, if I gave my granddaughter a needle and thread to sew a button on her shirt, she wouldn't know what to do. At the craft station we show them what to do, with whatever the craft may be. Even cooking, they get hands on experience."

Programs and workshops include dry meat making, story telling, bannock making, dry fish making or filets.

"We just recently started with canoeing," Dolly says. "Visiting nets. We usually have drumming. Snare and trap setting. And two craft tents. The crafts are different every year. In the evenings we usually like to have some dancing, square dancing or drumming. The kids like to play the hand games."

Up the river in Fort Chipewyan, the Athabasca Chipewyan First Nation and Mikisew Cree First Nation hosted an annual Treaty 8 Gathering in 2011 in Fort Chipewyan, AB. Featuring daily pipe ceremonies, information sessions, feasts, and entertainment, there is also a large cultural element, including

Elders at 2011 Fort Resolution culture camp cutting meat. Photo courtesy of Dolly Simon

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Harper & Ethical Oil

Dave Vasey
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Photo courtesy of Dave Vasey

Harper's dad worked as an oil executive in Toronto for Imperial Oil. One of Harper's first jobs was as a mail clerk for Imperial Oil. As prime minister, Harper has termed the oil sands 'ethical' despite testimony about the health, environmental and cultural impacts of oil sands for Aboriginal peoples.

Surprising? Not really. Canada bases a lot of its wealth off of mining, oil and tar sands extraction. As a global player, Canada fits nicely with the global strategy of oil companies.

In 1976, Larry Pratt wrote a book called The Tar Sands: Syncrude and the Politics of Oil. In the book, Pratt examined what right-wing think-tanks, industry and the US and Canadian governments were saying about tar sands.

Pratt identified some disturbing plans, which in today's world, turned out to be scarily accurate. First, right wing think tanks advocated that Saudia Arabia hold economic control of the Middle East. Second, they advocated 'destabalizing' the Middle East, to ensure Americans could control oil production. The wars in Afghanistan and Iraq have certainly done so – American and Canadian corporations are both top players in mining and oil extraction from both countries now. Third, they advocated Alberta having the lowest tax rates on oil extraction in the world – today Alberta's are indeed the lowest.

Big oil sets the agenda for many governments across the world and Canada is no exception. While many make good money working in the tar sands, it's hard to call them ethical when Canada is part of a global strategy to keep oil companies rich.

As for Harper's ethics, well it's hard to take ethics seriously from a guy who said there was no history of colonization for Aboriginal peoples in Canada for starters. The list grows from there.

Fish Health Study

Paul Jones
Associate Professor
University of Saskatchewan

Photo courtesy of Michael Tyas

After a busy year sampling in Alberta and the Northwest Territories, the University of Saskatchewan fish health study team are now busy in the laboratory. The samples collected over the summer and fall need to be analyzed for a variety of chemical contaminants. Samples for the measurement of heavy metals like mercury need to be digested in concentrated acid before analysis. Organic chemicals need to be extracted from the samples and concentrated before they can be measured.

While the team is working in the laboratory, I am frantically trying to keep up with the data that is coming in. The results still need to be verified, compiled and compared between locations and different species of fish. I am also busy compiling the information of fish health that was gathered when the fish were examined and dissected – including their weights, breeding condition, muscle and liver condition, presence and absence of parasites and other measurements. All of these measurements need to be taken into account to determine if the fish are suffering from ill health impacts. When you are feeling sick and go to a doctor you can tell them what feels wrong and then they can do specific tests to see how they can help. Fish can't do that so we need to check all of these possible places where sickness can show up. Our team has to keep careful track of all of this information before we can draw any conclusions about what the health status of fish.

Having examined almost 1000 fish, the team reports that there was no obvious higher rate of deformities or visibly "unhealthy" fish at any particular one of the sampling locations this summer. However, the results still need to be analyzed statistically and compared to the chemical measurements. These other health measurements may be more sensitive indicators of fish health than the number of obviously grossly unhealthy fish.

Paul and Brett cutting fish. Photo courtesy of Andrew Miller

Federal Changes

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Photo courtesy of Sheldon Birnie

With the federal Conservatives latest budget, there are many changes that will affect our environment over the coming years. Some of the largest changes recently implemented include:

• Changes to the Environmental Assessment Act. The Prime Minister and his Cabinet now have final say over large energy products, such as oil sands operations and mines. Timelines have also been implemented for Environmental Assessments, restricting full reviews to no longer than 24 months.

• Changes to the Fisheries Act, which will remove much protection of fish habitat from the current legislation. Currently, the Fisheries Act protects fish habitat in all of Canada's lakes, streams, and rivers. The proposed changes will alter the Fisheries Act to focus only on economic fisheries.

Critics believe that these changes have been made to speed up major energy projects, like expansion of mining in the oil sands, and the proposed Northern Gateway pipeline across northern BC and Alberta.

For more information, contact your local MPs

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(moose, muskrat, and ducks), plants and water around Fort Chipewyan. This is being done in collaboration with the Mikisew Cree and Athabasca Chipewyan First Nations. We are working closely with environmental scientists, like Paul Jones of the University of Saskatchewan, who focuses on fish along the Athabasca and Slave Rivers.

Through this and future *One River – Many Relations* newsletters we will present some results from this and other science research. We will also share insights from community leaders, Elders and youths about their knowledge, concerns and stories and their lives on the land.

We include interview quotes and scientific data. And we make much use of photos, stories, maps and recipes.

And maybe include the occasional bad joke. Or two.

Our great hope is that this newsletter can play a role in sharing this knowledge and information. With one another. But also with other communities. And with activists, governments and industry.

In the process, hopefully folks, especially those of us that live down South, can better realize that local Indigenous people are being affected. And many of our relations as well.

We all live downstream. But we also all live upstream.

Please let us know what you think about the newsletter and the issues presented here.

Thanks, Stef and Andy

Culture Camps
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dancing, drumming, and hand games. Jocelyn Marten, who works for Mikisew Community Services, helps organize the event.

Jocelyn has also been taking kids out onto the land for about five years now to show them the traditional way of life.

"Usually five or six kids – depends on the time of year what kind of travel," she explains. "Last winter I took 10 kids with me. Most of the kids who come are from MCFN but also Métis and ACFN. Usually try to mix them up."

She tries to take kids out on the

Fort Resolution Boys Participa

Muskrat: Keystone Species

Ronnie Campbell
Trapper, Mikisew Cree First Nation

Photo courtesy of Michael Tyas

The ideal condition for muskrat habitat is back in the marshes, little perch basins, where you got about two and a half, three feet of water. You don't want too much water because the vegetation for the muskrats is not there. The best vegetation for muskrats is the joint grass, we call it goose grass as the locals, and bulrushes.

Now it is all drying out. The delta is drying out, there is less water. There is no more muskrat. They lost their habitat. It's gone and I don't know if it will ever come back now.

My father always told me you need to have good habitat to have good animals and with muskrat habitat, what used to happen I seen it lots as a kid is you will get ice jams.

The Peace River and the Athabasca, two major rivers that come down from the south with the run off that influence our delta, that give us fresh water in our delta and with the dam on the Peace, that kinda cut off 50 per cent of the water coming down the Peace. And then when you got with the Athabasca there is industry that is pulling water off the Athabasca. Agriculture. Everything else is getting water, pulling water off these rivers so we are not getting big floods like we used to fill the birch basins to get muskrat.

The last big flood was 1997 and '98 when they found sinkholes in the Bennett Dam. BC Hydro released water for two years to fix the holes in the dam, so the water levels came up. There was water here in the delta. When you got your spring run off it just added to the water and brought the water level up and flooded all the perch basins and we had mukrats for two or three years after that. So it goes to show right there, my own personal living off this delta, if that Bennett Dam released more water, life could be good yet in this delta – we could still have muskrats, still have flooding and fresh water and stuff like that.

land during all seasons as part of her own hunting and fishing trips. During the spring and fall they go for ducks and geese. During the winter they go fur bearers.

"We do different things at different times of year," explains Jocelyn. "Muskrats are in spring - in March – along with beaver. In middle of winter we snare rabbits and ptarmigan. We also go dog sledding – give them a chance to do that. We also track different animals. We do lots of SkiDooing and sight-seeing in the winter."

Jocelyn explained that she typically goes with members of her own family and her husband. Her one rule is that the kids who come with her have to clean the fish and meat that they take.

Teaching young people on the land is recognized by many to be important. There are many people organizing, participating, and taking part in programs much like the ones encountered and discussed here. These kinds of programs are proving popular among the kids, parents, and elders.

"It is a lot of fun," Dolly Simon agrees. "It's just a good time."

te in 2011 Summer Culture Camp. Photo courtesy of Dolly Simon

Working with Outside Researchers
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that. It gave us a little more confidence in our dealings.

Our experience with the scientific community also made it easier to relate or deal with the government. It gave us the ability to really look at what they're telling us. For lack of better words, it helps us see... ...if they really know what they are doing in regards to the environment and people in the environment.

When you're dealing with resource development, this is an important thing. You're dealing with a lot of data and what they call "modeling." We call it "a guess." We never call it predicting. Whatever word you use doesn't make it any more real, it's the same thing. We do believe that we carry a bona fide set of knowledge and a bone fide way of living here.

These scientists that come and work with us, over time they become a part of us as we become a part of them. We relate in a more human way. We get a look at what they're doing and we begin to value what they're doing. You look at the job they're doing and you might say, "That's a job I want to do some day." And we do have successes. We do have some scientists in the Dene now. Dealing with scientists also gives us the opportunity to see the world in a much broader base, with other options and opportunities, things that are out there that we can reach for and attain.

Kids watching the fish study. Photo courtesy of Andrew Miller

Research Timeline

Activities Related to Changes in Environment and Health

June 2011
Funding from Regional First Nations Environmental Contaminants Program
For contaminant-related environmental health work conducted by Mikisew Cree First Nation (MCFN), Athabasca Chipewyan First Nation (ACFN), and researchers from Universities of Manitoba and Saskatchewan

June - July 2011
Fishing Days
Community members from Fort Resolution, Fort Smith and Fort Chipewyan collaborate with community researchers, Government of NWT and University of SK to collect fish for health analysis.University of Manitoba begins film interviews with residents to document environmental change and concerns with fish health.

Research Visit to Fort Chipewyan
Community presentations and interviews with community members from ACFN and MCFN regarding changes in wildlife and environmental health

Sept - November 2011
Fall fish sampling
by Fort Resolution, Fort Smith and Fort Chipewyan fishers for analysis by University of Saskatchewan toxicologists for fish health study.

Harvesting of moose, ducks, muskrat + plants
For contaminant testing. Additional interviews with members of MCFN and ACFN by University of Manitoba

December 2011
Winter fish sampling
by Fort Smith and Fort Resolution fishers for analysis by University of Saskatchewan toxicologists for fish health study.

January - February 2012
Communities review short films
with University of Manitoba researchers on the concerns of community members about environmental change and fish health. Additional film footage and interviews were collected.

February 2012
Muskrat monitoring study
in Wood Buffalo National Park. Film documenting survey conducted by Wood Buffalo National Park and ACFN and MCFN as part of Peace-Athabasca Delta Environmental Monitoring Program. Additional interviews by University of Manitoba.

Funding from National First Nations Environmental Contaminants Program
For contaminant-related environmental health work conducted by MCFN, ACFN, and researchers from Universities of Manitoba, Alberta, and Saskatchewan

May - June 2012
Spring fish sampling
by community members of Fort Resolution, Fort Smith and Fort Chipewyan for University of Saskatchewan fish health study. University of Manitoba researchers screen short videos. First newsletter, *One River – Many Relations*, released.

June 2012
Youth / Elders camp
Held just outside of Fort Chipewyan for local students. Coordinated by MCFN and ACFN with participation by Elders and scientists from across Alberta, Saskatchewan, and Manitoba. Links Indigenous Knowledge and environmental science regarding community-based monitoring.

Member Profiles

EHIMAI OHIOZEBAU

Ehimai is a PhD candidate from the University of Saskatchewan. Originally from Nigeria, Ehimai is working to monitor, measure and evaluate the level of chemicals in fish samples from the Slave and Athabasca Rivers.

Q. What is your research about?

A. I work to do a geographical comparison in regards to oil and gas exploration in Nigeria and northern Canada. I know the method (of extraction) here in Canada is different than in Nigeria, but I am focusing on the similarities.

Q. What exactly are you testing?

A. We are looking at identification of contaminant levels, to distinguish between naturally occurring levels versus what might be the result of the tar sands.

Q. What are some of your impressions from working in Fort Resolution, Fort Smith and Fort Chipewyan?

A. The hospitality. The people in from the area all came out to assist us with our research. It was a real collaborative effort. The people genuinely wanted to get results, which was quite inspiring. We hope to communicate our findings to the communities in the spring.

MICHAEL TYAS

Michael is shooting interviews and landscapes, as well as operating the editing suite for the video. Michael received formal training for video production in Cape Town, South Africa. He grew up in Southern Ontario and moved to WInnipeg in 2007.

Q. What sort of work are you doing in the area?

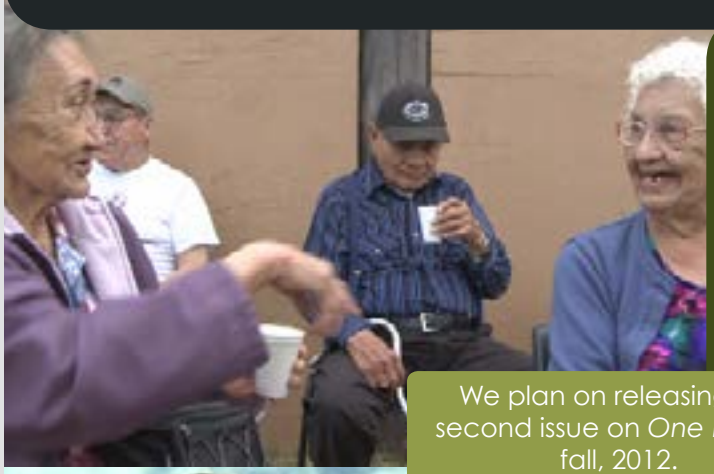
A. I am an undergraduate student at the University of Manitoba, pursuing a degree in Environmental Studies. I'm so honoured to have the opportunity to learn about environmental issues first hand while at the same time trying to make a difference.

Q. When did you first become involved in working in the area?

A. I attended one of Stef McLachlan's classes where he discovered I had formal training in video production. Because I'm also pursuing a degree in Enviro Studies, we began working together on various projects. The next thing I knew I was stepping off a plane in Fort Smith...

Q. What are some of your impressions from working in Fort Resolution, Fort Smith, and Fort Chipewyan?

A. What amazing places! The landscape is stunning, and the communities here are strong. I'm envious of the entrepreneurial spirit of the North and the friendliness of these places; you don't find the same friendliness in the Southern cities. I'm always looking forward to my next visit.



We plan on releasing our second issue on *One River* in fall, 2012.
We are excited about connecting with and supporting local contributors.
If you write or are concerned about the environment or health.
Take photos or create poetry or songs.
Know some good jokes or country food recipes.
Or have anything else you want to share.
And would like to publish them in this newsletter
Please contact Sheldon or phone the Conservation Lab.

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