

INLAND&LIFE

Researching the effects of Chronic Wasting Disease and surrounding land use on wildlife and livelihoods of First Nations communities

July 2010, Issue 1



PHOTOS COURTESY OF STEFAN EPP

Percy Potts

ANIMALS HAVE RIGHTS that are granted to them by the Creator. The laws governing them are given by the Creator. It is up to humans to learn what these laws are about and to respect them. Animals have a right to survive and have their environment respected.

If the natural order is followed, the balance will be upheld. If the natural order is disrespected, there will be an imbalance in the natural law.

The reason for the research is because of the damage to the environment of the moose, the rest of the ungulates, and also the bears, wolves, foxes and coyotes. Most of the predator animals rely on moose, elk, deer, beaver, muskrats, and rabbits for survival. If the order is disrupted, this affects us as humans and also the animal life that exists in the forest. Naturally, sicknesses come to the animals to keep them in balance and prevent overpopulation. We as indigenous people rely on moose, elk and deer for our food, hides for our drums, rattles, coats and moccasins. The impact of oil and gas development in forested areas, and the clear cutting of lumber companies expose our moose and elk to different categories of hunters: treaty hunters, poachers and the government regulated hunting season. This forest clearing and also animal baiting make the animals easier to take down. In natural hunting, the animal should always have a chance to escape.

The challenge of this project is to bring the western scientific world together with the indigenous worldview to impact policies that will govern all categories of hunting. The moose study is to see if any diseases are being brought upon the animals by the activities taking place in their homeland. ●

Welcome to In Land and Life!

Stef McLachlan, mclachla@cc.umanitoba.ca

WELL...FIRST OF ALL I would like to welcome everyone to our first In Land and Life newsletter. It has been a long time coming. Too long. And for that I apologize.

My name is Stef McLachlan. I am a professor at the University of Manitoba who learns and teaches about people and the environment. I was born in Hong Kong, and my parents are from Scotland, France, and Greece. And I now live in Canada. Which is maybe why I am always a bit confused. Right.

Community concerns about sick moose were first shared with me back in 2007. I was out visiting Misty Potts and her family at Alexis Nakota Sioux Nation. While on the land, I talked to Elders and hunters who wondered if I might help them explain why the moose sickness was happening.

But we wanted to do the research right for a change. Definitely not the same old, same old. An old way where everyone benefits, except the communities. And where the results disappear, and end up who knows where. We researchers would be responsible to the community. And act as partners with the community members who are the real experts. What we researchers do it to help out in the background. Doing the research that helps you answer your own questions. And then we share any and all results with you. Research results that your communities will own and have direct access to.

So, we wrote some proposals and got some funds from the government (PrioNet Canada) to see if the moose sickness was related to something called Chronic Wasting



PHOTO COURTESY OF MISTY POTTS-SANDERSON.

We researchers would be responsible to the community. And act as partners with the community members who are the real experts.

ing Disease that you might have heard about. This disease is related to Mad Cow Disease, and is affecting deer, elk and moose in the United States and also in Alberta and Saskatchewan. But the sickness might also be related to something very different. Like other diseases. Or oil and gas. Or maybe deforestation. Or climate change. Or maybe a mix of these things. And so, over the last year we have been doing our best to track down these missing pieces. With your help and advice.

I use the term pieces, because this research is a bit like building a jigsaw puzzle. Or maybe figuring out one of the trashy mystery novels I always carry around and read late at night.

The whole puzzle will show us all a picture about the moose sickness. And this is a puzzle that we can build together.

continued on page 3>>

Participatory Documentary Film Project

Troy Stozek, troystozek@gmail.com



PHOTO COURTESY OF TROY STOZEK

AN IMPORTANT PART OF THE In Land and Life project is listening to, hearing and learning from those who are most directly affected by changes in wildlife and environmental health.

Since fall 2009, I have been out and about, visiting communities throughout Treaty 4 and 6 in Central Saskatchewan and Alberta, doing my best to absorb and capture some of the stories and experiences people have shared with me, all through a movie camera lens.

This has been a very enriching experience! Thank you to all who shared stories, experiences and some of the places and territories that are important to you and your communities. Though some have shared stories about changes to their livelihoods and communities that are filled with sadness and disappointment – as a result of modern society, development projects and the like – there still remains a strong spirit among people. There is hope for the future. Much of this hope lies in the potential of educating people about the realities of First Nations people who are confronted with countless ongoing threats to their traditional lands, cultures, communities and ways of life. I hope that the film work that we are doing will contribute to this education process.

I have been working hard at editing down the many hours of interviews and footage from out on the land that you helped facilitate. The end goal is to put together a 1-hour documentary film that can be used to help share the important understanding of wildlife and environmental health, mostly from a First Nations perspective. This film will be

an important education tool that shows people what Native people have to say about animal diseases, how they are affected by them, what some of the potential causes are, and what needs to be done about it. But I will also be building in some of the scientific perspectives on animal disease (e.g. Chronic Wasting Disease). By bridging these two worlds of understanding and knowledge, hopefully, we can all move forward with a better understanding of wildlife and environmental health.

I am also working on putting together a few shorter videos. One of them is focused on animal sampling: “from the bush to the lab”, based on footage from moose hunting out on the land with folks from Alexis FN, along with footage from some of the lab tours in Alberta and Ontario I recently took part in. I hope people will find it useful to see the journey animal tissue sampling takes from the time it is harvested out on the land all the way to the various testing labs, locally and nationally.

What do you think? I would find it very helpful if we could find a way for you to participate in the process of

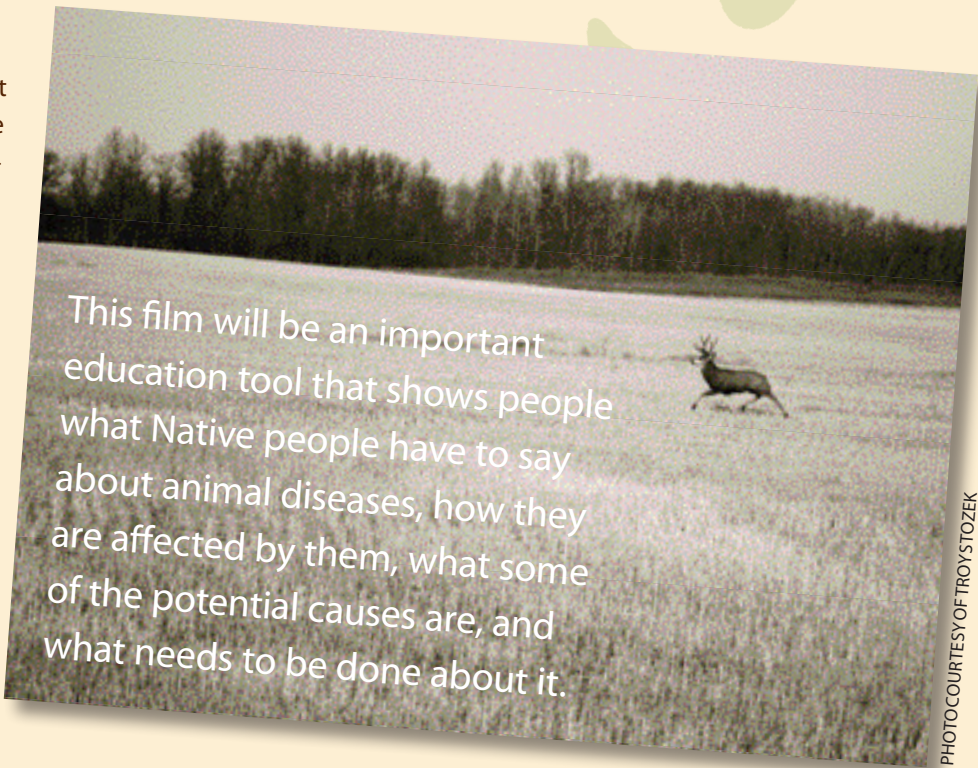


PHOTO COURTESY OF TROY STOZEK

this and further film development. Though it has been really rewarding to carry the many stories and images from our film shoots, it is also often a heavy load to carry alone. I really want to make sure that the direction the film is going in is rooted in the needs and wants of the people and communities involved. So get ahold of me if you are interested in plugging into the video project! By listening to, learning from and sharing the wisdom and stories of the people living close to the land, hopefully we can all move forward toward a better future together on this land, in this life.

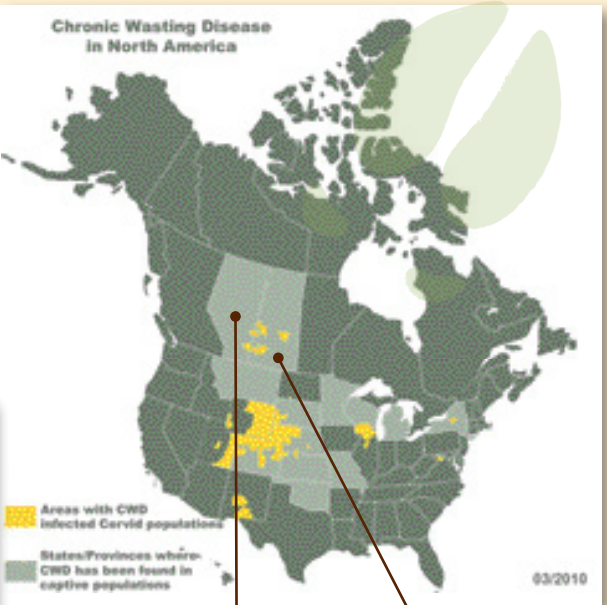
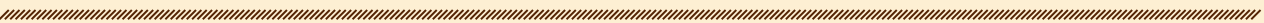
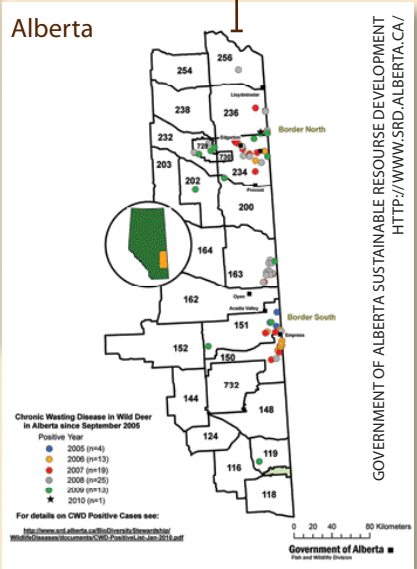


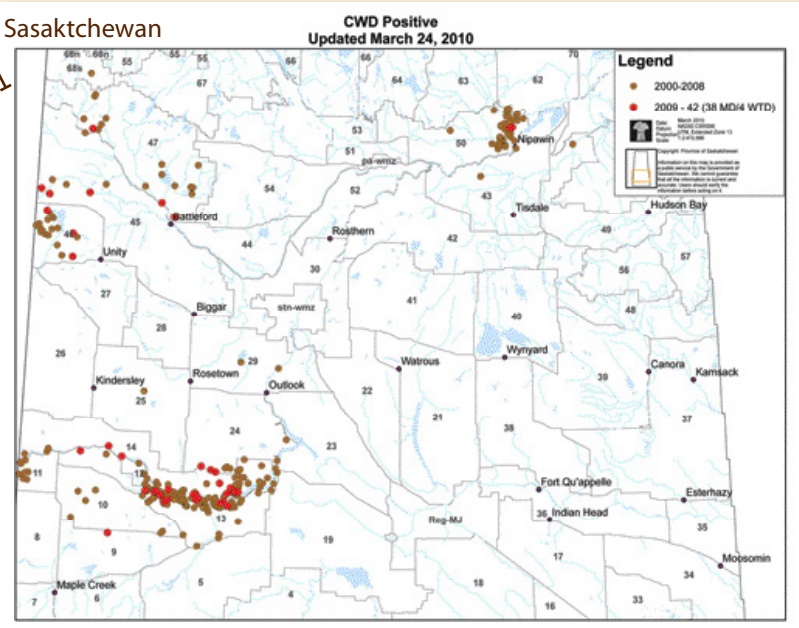
PHOTO COURTESY OF CHRONIC WASTING DISEASE ALLIANCE (WWW.CWD-INFO.ORG)

The Spread of CWD

THE DOTS ON THESE MAPS show where cases of Chronic Wasting Disease or CWD have been found in the United States, Alberta and Saskatchewan. CWD is a disease of moose, deer and elk. The disease targets the brain by creating holes that can only be seen with a microscope. There is currently no scientific evidence that the disease can infect the people that hunt and eat these animals. But some caution should be taken when handling any suspicious animals in CWD prone areas. Animals with the disease may stumble, drool, loose weight or behave in ways that are out of the ordinary.



GOVERNMENT OF ALBERTA SUSTAINABLE RESOURCE DEVELOPMENT
HTTP://WWW.SRD.ALBERTA.CA/



GOVERNMENT OF SASKATCHEWAN, MINISTRY OF ENVIRONMENT
HTTP://WWW.ENVIRONMENT.GOV.SK.CA/

Announcements

- **Comments** - If you have any questions or comments about anything that you have seen or read in this newsletter, please let us know. Also, let us know if you are interested in contributing to the newsletter and/or this research. We can be contacted by phone at 204-474-9316 and 1-866-580-8160 or by e-mail at inlandandlife@gmail.com.
- **Campout** - We hope to see you at this year's campout, July 18 - 28
- **Website** - The In Land and Life website has been updated. Check it out: www.inlandandlife.ca

Timeline

2005

- **September**
 - First wild case of Chronic Wasting Disease found in Alberta

2009

- **July**
 - University presentations to Chief and Council about wildlife health research possibilities
 - Community feast

August

- First campout with researchers and community members

Welcome to In Land and Life!

continued from page 1>>

We researchers find some of the puzzle pieces by interviewing Elders and hunters and people who prepare the meat. And by mapping out where and when the sick and healthy moose occur. And how the quality of the meat has changed.

Another set of puzzle pieces gets at why the sickness is occurring. Hunters are again sharing some more of these pieces. By collecting tissue samples of both sick and healthy moose. Some blood. Some bones. Some teeth. Some organs – like brain, kidneys, and others parts as well. We are then shipping off these samples and testing them in scientific laboratories in Calgary, Ottawa, and Vancouver. Some more puzzle pieces will be shared by community members, who will tell us their reasons for the moose sickness.

So the puzzle pieces are falling in place. But the puzzle is useless if no one knows about it. Or if the puzzle ends up on some shelf somewhere. Or, worse, if the puzzle ends up being used to hurt the community members. So this is why you'll see us at the campouts on the land this summer. Sharing what we have found. And asking you if we have got the picture right or not. And perhaps figuring out how we can all do a better job of building the puzzle.

We are also taking lots of video and photos. We will be making videos that people care about. And printing off newspapers like this one. So we can spread the word. Spreading it to all interested Indigenous communities. To scientists. And also to the government.

And, as researchers, hopefully getting the message right. Finally.

If you haven't shared yet, we welcome you as a partner. On this research journey. And in building this puzzle together.

So thanks for sharing. Ish Nish. Or as my Scottish father says in Gaelic
tapadh leibh

stef

Animal Sampling Update
CHECK IT OUT!!

- This first year, we received 17 completed moose sample kits (thanks to the hunters for collecting these!)
- Scientific samples were then taken and mailed to labs across Canada (see our newsletter insert for the pathways map)
- **IMPORTANTLY:** NONE of the 17 moose we tested had Chronic Wasting Disease
- We are now getting more information on contaminants (heavy metals, chemicals) and parasites for these animals
- For more details on these results please come to the camp out held in central Alberta (July 18-28, 2010)
- And for more details please read our next fall 2010 issue of the In Land and Life newsletter



PHOTO COURTESY OF STEFAN EPP

Pow wow grand entry.

How do wildlife diseases affect me, my culture and my life?

Helen Cote-Quewezance, Cote FN, Treaty 4 Territory.

LONG AGO when our treaties were being negotiated, our people demanded we continue to live as we always had. The rain-dance, the round dance, the feasts and many other ceremonies were to continue. Traditional people hunt and cook wild meat to serve in their ceremonies as an offering to our Creator.

The continued encroachment of modern society and resulting wildlife diseases like CWD, affecting the deer, moose and elk (to name a few), are a big concern and real threat to my way of life and First Nations communities and traditions as a whole. I feed my children this food. I am traditional. Ceremonies are my church and my way of life. We do not use domesticated animals for our ceremonies. So the increasing prevalence of these kinds of disease threats have the potential to result in



PHOTO COURTESY OF TROY STOZEK

the loss of our traditional foods in our diets, as well as our ceremonies. This is a serious risk.

We all have a responsibility to help our animals in their increasing struggle to have access to and live on clean lands. We need to ensure our meat is clean, tested and our wildlife have a clean home to feed and raise their young.

Importantly, Indian and Northern Affairs Canada (INAC), through treaty obligations, have a responsibility to work with us on providing clean land, wild meat and berries for our ceremonies and our food sources. Why didn't INAC tell us that the animals were sick? After all, many of us still depend on wild game as our only source of meat and protein and this is part of our treaty rights.

Q & A

George Bird

Hunting Outfitter,
Duck Lake, Saskatchewan



Q: What are some of the changes in the wildlife you have seen in your lifetime?

A: When I was younger, there was nothing to worry about. In the last 30 years, you could just see all the animals changing. And more and more farms for elk and buffalo are popping up all over the place. I even saw a deer farm up near Prince Albert. It makes a person wonder, because all those diseases, like H1N1, Avian Flu and now CWD, all originated from farms. That's where these pandemics are coming from. It is an issue of overpopulation in some of those places.

Q: Is wild meat an important part of your diet?

A: All the meat that we ate when I was growing up was all wild – chickens, ducks, geese, deer, everything. Now, you can't even eat half of those things. You can't eat bears, you can't even eat ducks and geese because of their migration and all the pollution they encounter along the way.

Q: Has the emergence of wildlife diseases (like CWD) affected you, personally?

A: Well, most of my family doesn't eat wild meat anymore because they are leery of these diseases and there are just so many pesticides out there. So these animals go and eat grain that has been sprayed with that stuff, so many people don't want to eat it. Many of us hunters though, like my brother and I still eat the meat, because we love it.

Q: If you had one wish, what would it be?

A: Well, when I was growing up, the bush was like the Superstore. But you didn't have to bring a credit card, never had to bring a checkbook, all you had to bring was a gift for the Creator and the spirits, you know, that was the currency. If I had one wish, I would wish we would all just go back to the way we were, you know, and our lives would be so much better. And I don't mean kicking everybody off our land. I mean everybody. We may have different coloured skin but we're all human.

Joke Corner

1. What do you call a bear with no ears?
 2. What is the difference between a flea and a wolf?
 3. What is the strongest animal?
 4. What happened to the cat that swallowed a ball of wool?
- (Answers on page 4.)

PHOTOS COURTESY OF TROY STOZEK

2010

January

- Mapping with hunters

July

- Second campout with researchers and community members

August

- Additional mapping with hunters

2011

February

- Final video editing

March

- Sharing of research results with community partners
- Video screening

April

- Workshops for scientists, government and community members



PHOTO COURTESY OF RYAN BROOK



PHOTO COURTESY OF KATIE PETERSON



PHOTO COURTESY OF KATIE PETERSON

Investigator:

Tamara Stef-

Q: What part of the In Land and Life project have you been working on?

A: I have been helping out on the stakeholder outreach aspect of this project. I have been doing phone interviews with organizations, government officials, farmers and hunters of deer, moose and elk to get their input regarding CWD, the risks associated with it, communication around the disease and how communication could be improved.

Q: How does the In Land and Life project fit with your interests?

A: I appreciate seeing more involvement of communities and individuals in research projects, especially ones that may affect their livelihoods. One of my interests is communication with stakeholders because their knowledge and ideas can offer fantastic insights and potential solutions and their voices are sometimes undervalued.

Q: What is your favourite book or story and why?

A: If I had to choose one, it would be Day of the Triffids by John Wyndham. Though written in 1951 it transcends time and touches on issues such as ecological disasters, worries around genetically modified crops, and biological warfare that are relevant to this day.

Q: What is your favourite tree?

A: Trembling Aspen.

Investigator:

Nigel Alexis

Q: What got you interested in working with the project?

A: I've always been working outdoors- this is a normal way of life for me, although I am still learning about my traditional way of life. I would like to learn more about what is going on with the animals through our research. Everyone looks to research for answers to do important work for society and to benefit the community. I wanted to be involved in university research and would like to go to university someday. I also want to be more involved in my community.

Q: What would you like to see happen through the work of the project?

A: I hope that we find something interesting, some worthwhile information that no one has thought of before. I would also like to see more community involvement in environmental concerns, and I hope that we inspire people to do research.

Q: What is your favorite book or story?

A: The Inquisition, The Devil's Advocate

Q: What is your favourite tree?

A: Cherry trees, because of the pink blossoms; bonzai trees.

Investigator:

Eva Potts

Q: What got you interested in working with the project?

A: My family has always been close to the land and the wildlife. I am concerned with protecting and conserving our traditional activities. This way of life is really important to me, it's a big part of me- I love to hunt and pick medicine.

Q: What would you like to see happen through the work of the project?

A: Last year our focus was on finding out what was happening with the moose. This year I would like to see more young people get involved, as they should be aware of what's going on with the wildlife. The youth should also become more aware of who they are, where they came from, and their history. They should remember the way of life of our ancestors and their struggles.

Q: What is your favorite book or story?

A: April Raintree

Q: What is your favorite tree?

A: Birch trees, because they are easy to climb :-)

What is the Environmental Conservation Lab?



PHOTO COURTESY OF STEFAN EPP

Stefan Epp, Dayna Kroeker and Tamara Steffensen hard at work.

THE ENVIRONMENTAL CONSERVATION LAB is at the University of Manitoba. The lab is made up of students and staff who spend their time looking at the impacts of environmental decline on communities and at community responses to these changes. The researchers at the lab also do research around food systems. A food system includes growing, processing, distributing, purchasing, and eating food. We do research in many ways, such as questionnaires, interviews, community-based mapping, sharing circles, directed walks on the land, and video.

Some people at the lab also do scientific research that works to complement the other kinds of research. This brings social and biological research together, which increases the quality of the research and promotes the importance of the multi-generational insights of rural and indigenous people. This holds the biological research accountable to the communities and people that inform the research, ultimately increasing the relevance of our work.

Want to learn more about the lab or what we do? Please feel free to come and visit us at the lab website or at the lab itself. Our phone number is 204-474-9316 and 1-866-580-8160. Or you can visit us at 303 Wallace Building, University of Manitoba. Online you will find us at <http://www.environmentalconservationlab.ca/>

ANSWERS
1. Bi / 2. One prowls on the hairy and the other howls on the prairie! / 3. A snail. He carries his house on his back! / 4. She had mittens!



INLAND&LIFE

Principle Investigator:
Stephane McLachlan
mclachla@cc.umanitoba.ca

Alberta Principal Investigator:
Carmen Fuentealba
cfuentea@ucalgary.ca

Principal Community Coordinator:
Misty Potts-Sanderson
mpotts.sanderson@gmail.com

Editor:
Anna Weier
inlandandlife@gmail.com

Contributors:

Nigel Alexis	Carmen Fuentealba	Eva Potts
George Bird	Dayna Kroeker	Percy Potts
Ryan Brook	Stephane McLachlan	Troy Stozek
Helen Cote	Katie Peterson	Tamara Steffensen
Stefan Epp		

In Land and Life is printed on 100% post-consumer recycled & 100% chlorine free paper. FSC Recycled.

Wildlife Health Mapping

I HAVE BEEN WORKING with the Alexis and Paul Bands on this wildlife health study since fall (2009). I have participated in moose sampling and have been doing mapping interviews with hunters and meat cutters. I've also been participating in and helping out at community events including round dances and the Sundance. I will be helping to combine the shared traditional knowledge of wildlife health with scientific landscape data to help us better understand the changes observed in moose and other animals. Please contact me if you would like to do an interview and share your knowledge and concerns about wildlife and the environment.

Ish Nish to everyone who has shared with me their knowledge of moose and other wildlife health- this knowledge is very valuable for the project and has been a meaningful and enriching experience for me.

Katie Peterson
Wildlife Health Mapping Project
780-459-0745 (home) / 780-695-6366 (cell)
kateanne.peterson@gmail.com



PHOTO COURTESY OF PERCY POTTS

Katie Peterson interviews hunter Fred Alexis.

Animal Sample Pathways Map



AS PART OF the In Land and Life research into wildlife health, hunters have been collecting samples of animals, so that testing can be done to learn more about the animals' health and what is affecting it. There are many different people and laboratories involved in examining the samples of the animals.

1. Most of the samples are collected by hunters in Alexis and Paul First Nations communities and are sent to Dr. Carmen Fuentealba at the University of Calgary. Dr. Fuentealba looks at any lesions collected in the sample, first by eye and then if necessary by microscope. Dr. Susan Kutz, also at the University of Calgary determines if the animal was affected by parasites.
2. The brain samples go to Alberta Fish and Wildlife in Whitecourt, Alberta to be tested for CWD.
3. The brain samples also go to the lab in Ottawa to be tested for CWD.
4. Samples of liver and kidney go to a lab in Burnaby B.C. for toxicology testing to see if there are heavy metals

or other types of contaminants found. Finding contaminants could mean that the environment that the animals are living in is unhealthy.

5. Samples of the liver, kidney, spleen and blood go to the University of Manitoba to Dr. Juan Carlos Rodriguez. He checks to see if the samples show that the animal had any viruses.
6. Samples of feces go to Dr. Gary Comboy at the Atlantic Veterinary College in PEI to get tested for parasites also.

After all of the tests have been done, the information goes back to Dr. Fuentealba. She puts it all together and shares the results with community members. This is done in person in campouts, with the newsletter, and on our project website. ●



WHY the study is being conducted

This project was started after hearing concerns from Elders and hunters about the health of moose in Central Alberta. Our goal is to figure out where and why the decrease in wildlife health is occurring and what impacts this is having on First Nations. We hope to solve this mystery by linking Traditional Knowledge and Western science.

We also want to find better ways of sharing information about wildlife diseases with First Nations. This will take place at campouts and ceremonies on the land. We will use video and newsletters to help this communication.

We are excited about this research and about doing it in ways that are respectful of First Nation traditions and concerns and we hope that you are also interested either in becoming involved or in finding out more about our project.

We are partnering with the Yellowhead Tribal Council and the Alexis Nakota Sioux Nation in this research. We are also learning from other First Nation communities in Alberta and Saskatchewan and others affected by declines in wildlife health. Students and researchers come from the University of Manitoba, University of Calgary, University of Saskatchewan, and the Justice Institute of British Columbia.



In Land and Life Wildlife Health and Aboriginal Communities



HOW the study is being conducted

- Scientific testing of samples from moose and deer hunted by community members
- Mapping of traditional hunting areas and diets
- Mapping of changes in land use such as oil and gas, forestry, and agriculture
- Coming up with better ways to share information among communities, scientists and government
- Linking Western Science and Traditional Knowledge about wildlife health
- Making video documentaries about wildlife health and community concerns

WHO to contact for more information

Visit the website: www.inlandandlife.ca
Toll-free phone: 1-866-580-8160

Or contact:

Stephane McLachlan
Principal Investigator
Email: mclachla@cc.umanitoba.ca

Misty Potts-Sanderson
Principal Community Coordinator
Email: mpotts.sanderson@gmail.com

Carmen Fuentealba
Alberta Principal Investigator
Email: cfuentea@ucalgary.ca