

Partnering for Sustainable Resource Management

Newsletter 2
March 2005



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If you would like more information, please contact the CURA Research Coordinators:

Dr. Erin Sherry
Ph. (250) 960-6177
sherry0@unbc.ca

Beverly Leon
Ph. (250) 996-0028
bev-jprf@telus.net

Sarah Parsons
Ph. (250) 960-6357
parss000@unbc.ca

Please visit our website at:
<http://cura.unbc.ca>

CURA Progress: Tl'azt'en and UNBC Perspectives

Update from Amelia Stark

Tl'azt'en Nation, CURA Member-at-Large

Greetings to all Tl'azt'enne and our readers. Being part of the CURA team has brought insight and experience to many windows of opportunity I see at all levels and areas in our community.

Thank You to Dr. Erin Sherry, Senior UNBC Coordinator who spent many hours on this project to build a strong foundation for the success of the CURA Project. We also welcome back Gail Fondahl, returning from a 6-month sabbatical in Scotland. In the CURA project, four research streams were identified, with the overall goal to develop curriculum and build on the partnership with UNBC.

Research undertaken this past year includes the Place-names project on Dak'elh (Carrier) names in our traditional territory that incorporates our community's values and beliefs handed down over thousands of generations. Also as part the TEK Stream, we started to define the research process for the Medicinal Plants, another valuable process that involves the knowledge and wisdom of our Elders. Both research topics will help to set a foundation for curriculum development. Other research includes the Criteria and Indicators of Forest Co-management, looking at the JPRF as a model of how to structure and improve partnerships in natural resource management with First Nation communities.

Tl'azt'en Nation has been preparing for the Ecotourism Stream, scheduled to begin next year. Tl'azt'en Nation is providing an opportunity to 17 Tl'azt'enne in the Aboriginal Community Economic Development Diploma Program (ACED) through NVIT, with the hope that one of the students can easily move into the Eco-tourism Stream as the Tl'azt'en co-leader.

CURA is building on a wide range of traditional information with a focus on cross-cultural learning and sharing and the involvement of community members and key stakeholders. The combining of Traditional and Western Knowledge will integrate perspectives from two worldviews. In closing, Tl'azt'en Nation through its participation in CURA, seeks to highlight a new beginning and a brighter future. Curriculum to transfer Traditional Ecological Knowledge from older to younger generations will be the measuring sticks of CURA success and will help to keep the Tl'azt'en identity strong.

"The roots of education are planted in family, cultural values and traditions"



CURA Steering Committee members from left to right: Beverly Bird, Erin Sherry, Deborah Page, Beverly Leon, Chris Jackson, Amelia Stark, Vincent Joseph, Sarah Parsons, Sue Grainger and Jane Young. (Missing: Gail Fondahl)

Update from Gail Fondahl

UNBC, CURA Principal Investigator

As we enter Year 2 of our CURA project, "Partnering for Sustainable Resource Management", we can celebrate significant progress. Our CURA project involves four research streams: "Improved Partnerships" ('IP', focusing on the enhancement of the co-management regime for the John Prince Research Forest); "TEK" (concerned with the perpetuation of Tl'azt'en traditional ecological knowledge); "Science Education" (looking at ways to improve Tl'azt'en students' attainments in Western science education); and "Ecotourism" (exploring the feasibility of diversifying the Tl'azt'en economy through the development of such tourism). Each stream is led by a Tl'azt'en and a UNBC leader. The partnership is guided by a steering committee, including these stream leaders, research coordinators and others. We make decisions by consensus, working on continually strengthening the partnership through the discussion, exploration of shared values, and learning respect for differing opinions that consensus demands.

We have established a diverse Expert Resource Pool, whose members can be called on to provide advice on issues ranging from research methodology to appropriate protocols for conducting specific types of research in a First Nations community. Members include Tl'azt'en elders, academics, and others.

From the UNBC perspective, our first year has been one of organizational challenges and of rich learning. Faculty members and students are greatly benefiting from the insight, generosity, and patience of our Tl'azt'en partners, research assistants, and of the many community members who have contributed vastly to the research. While honing specific research skills, we are more importantly improving our ability to fruitfully cooperate toward inter-related goals. As British Columbia hopefully moves toward more just and equitable relations with the First Nations whose traditional territories comprise its lands, learning to work together itself is a vital achievement, one that will lay the ground for a richer future for all.

STUDENT VIEW: TRAILS OF LEARNING: DAKELH PLACE-NAMES IN THE JOHN PRINCE RESEARCH FOREST

By Karen Heikkila

I started graduate work after a number of years of teaching in Canada as well as abroad. I believe it was working in Mongolia and Tajikistan that made me particularly aware of the vital need for a culturally-appropriate curriculum, one that was inclusive of the worldview and lives of local children. Hence, I am pleased to be collaborating with TI'azt'en Nation on this very same issue, with the goal of applying the cultural research that we are doing together in educational programmes like the Science Camp.

As part of the Traditional Ecological Knowledge stream of the CURA project, I looked at a sample of ten place-names from within the John Prince Research Forest area. The places under study include Tezzeron and Pinchi Lakes, their lake outlets, creeks that flow into or out of the lakes, an island in Pinchi Lake and Pinchi Mountain. Beverly Bird chose the place-names upon the criteria that they describe physiographic features and designate places in the JPRF that children can actually see or visit when they attend the science camp held there every summer. The

names of rivers and streams, for example, have different names depending on their volume of flow and whether they run into or out of a lake. Another example is the naming of geographical features based on cultural use, as in the instance of mountains named for the presence of certain kinds of minerals found on their slopes. The information from the selected place-names, therefore, is useful for teaching children about traditional ways of knowing and appreciating the land.

No collection of place-names was carried out under this project because TI'azt'en Nation has accomplished the bulk of collecting and mapping out Dakelh names in the traditional territory. Instead the aim of the CURA Place-Names project was to work with a sample of place-names already collected to find out what information is contained in them. TI'azt'en Research & Development office collections such as the Elders' Interviews and the TI'azt'en Place-Names database records were examined for information on the ten place-names. To address information gaps and collect supplemental information, *keyoh* holders from the study area and other knowledgeable individuals were interviewed. These steps in the research provided the groundwork for more detailed analysis of the place-name information. The findings of the research are currently in the process of undergoing verification by the Carrier Linguistic Committee and will be shared with TI'azt'en Nation soon.

The allure of place-names to aboriginal people is unmistakable. Indigenous place-names seem to

serve far more than merely a designative function; they are special to people, in the sense that the names and the places that they mark were once known and used by the ancestors. In other words, the land is a history book or more expressly, a family tree that contains clues to the identity of a people. In the quote and interpretation that follows, I hope to leave readers with an 'in a nutshell' sense of the significance of traditional place-names to indigenous people.

"Places are named after an activity or something that happened there or the way they look. Place-names describe the landscape - a creek flowing in or flowing out, a marsh or swamp...that's when the land becomes clear to us." - Margaret Mattess, *TEK Stream Place-Names information session, 19 May 2004*

This research shows, among other things, that place-names contain navigational and environmental information. As people once travelled substantially in order to survive, it was discovered that place-names provide information about resources available in different parts of the land. People read the land to know the most reliable places to hunt, fish, trap and gather. They also had a thorough knowledge of routes to these places, as well as, the skills needed to undertake journeying and harvesting under varied circumstances.

Place-names and the stories behind them connect as well as commemorate places and events along a trail that leads to a subsistence site or a culturally important area. Routes to hunting grounds or fishing holes, for example, were memorized and unravelled with the help of place-names. Descriptions of a place, information about the kinds of natural resources found at a place, the natural or cultural history of a place are contained in place-names.

Place-names also indicate traditional knowledge. Trails that are travelled

(Continued on page 3)



Looking at the southern shore of Chuzghun (Tezzeron Lake) on a sunny afternoon. Chuzghun marks the northern boundary of the John Prince Research Forest. This photo is taken near the Cinnabar Resort and Research Station, a facility for recreation, education and research.

TEK Stream: Medicinal Plants & Ethnobotany

By Renel Mitchell, Research Assistant

Since December, Tl'azt'en researchers have been busy compiling information on traditional medicinal plants. "Duchun yoo: Tl'azt'en Medicinal Plant Use" is a booklet that contains information on over 40 trees, shrubs, and wildflowers that are important to the community for their medicinal and healing properties. It is interesting that some of the most important and potent medicine comes from trees. Elders tell us how important it is to know what to do in different kinds of situations, whether it is a chronic illness, a deep cut, or a cough, the first thing was to look to the natural world for the healing

properties of local plants. Living out in the bush means you have to look after yourself, and plant knowledge was and still is essential for a long and healthy life. The health of the plants is important too. Tl'azt'en community members have many concerns about how environmental impacts affect the plants they use for both medicine and food. Preserving knowledge about the plant as well as knowledge about its use go hand in hand. Veronica Campbell, Mona Anatole, Renel Mitchell and Morris Joseph have laid a foundation for future research with regards to traditional plant knowledge and use. These re-

searchers brought all different types of information together, reaching into the past, and reviving the traditional ecological knowledge of Tl'azt'en Elders long since passed away; their knowledge still able to resonate with the people today. Information from interviews with Elders dating back into the 1970's can touch our lives today. Knowledge about the plants and animals that Elders possess, gained from a traditional upbringing, is critical to be passed down to the youth of today. Even though we all live very modern lives, the knowledge of plants and their uses can benefit us all. They are our gifts from the natural world.



Website Update

In the past few months, we have been making additions to our website.

Under Resources, we have links to information that may help other organizations involved with First Nations partners, and First Nation communities working in cross-cultural partnerships.

The purposes and goals of each research stream are explained on each of the streams' pages. As well, research leaders and their contact information are provided. The Improved Partnerships stream has made many resources available, and we hope they can be used to improve other partnerships involving First Nations communities.

New graduate student opportunities will be posted in the months ahead.

TEK STUDENT VIEW (continued)

on for a particular seasonal subsistence activity form a system or network of places where people camp, fish, have lookout points, hunt, gather plants, etc. Names of such places reflect the traditional knowledge that is linked to the subsistence activity. For instance, names might be linked to material culture, fishing or hunting technology, the animals or plants that can be harvested in the area and those physiographic features (such as river mouths, river eddies, hilltops) where certain resources are found or where certain types of harvesting technologies and implements are needed.

Sometimes, information about resources is not directly understood from the place-names themselves. Rather, they are indicated in people's knowledge about the environment or are hinted at in stories. In this case, knowledge about wildlife, plants, minerals, and other traditional use materials may be at the core of people's knowledge of the geography of their land. *Yun* is the Dakelh term that describes traditional knowledge about natural resources and the land. To comprehend this environmental or resource information, an understanding of the Dakelh culture and *keyoh* land use system are necessary.

Aboriginal communities across Canada are learning and using the traditional names of places in their territories.

This is an instance of the potential of place-names to address issues of cultural revitalization. Language and land represent and sustain cultural identity but also form the basis for understanding the essence of oral tradition. Therefore, place-names offer a 'compact' experience with language, oral tradition and the land. In this respect, the value of place-names in aboriginal education is immense. Native place-names promote understandings that are aboriginal and entwined with place, and present the opportunity to know and claim the land as aboriginal people. Correspondingly then, place-names can be used as a medium for educating about conquest, the struggle for social justice and aboriginal rights and title.

To all the participants of the research - Catherine Coldwell, Betsy Leon, Theresa Austin, Walter Joseph Sr., Pierre John, Robert Hanson, Sophie Monk, Frank Duncan, Louise Alexis, Elsie Alexis, Stanley Tom, Alexander Tom, Margaret Mattess and Pauline Joseph -my heartfelt thanks to you for sharing your wisdom and knowledge. You have taught me so much. I am also indebted to Beverly Bird, Morris Joseph, Renel Mitchell, Beverly Leon, Mona Anatole and Veronica Campbell for their expertise and assistance throughout this research. I take this opportunity to thank you for your advice, support and friendship.

Local Perspectives on the Process of Effective Forest Co-management

By Erin Sherry and Donna Atkinson

Forest co-management involves two or more parties with interests and values in shared resources who share management power, responsibilities, and benefits. It can involve government, First Nations, non-Aboriginal local users, non-governmental organisations, and industry. In theory, co-management offers solutions to the failures of corporate forestry and to many of the issues faced by forest-dependent communities. It promises to address society's demands for democratization of forest management, respect for Aboriginal and treaty rights, development of certainty in resource ownership, consideration of non-timber forest-values, and recognition of the social and cultural implications of forestry.

The content and structure of forest co-management in Canada varies widely and still is in the process of being defined. Co-

management results are variable and a gap between the theory and practice of co-management is evident. Currently, it is unknown what the prospects are for realizing core co-management goals such as fairness, mutual respect, co-operation, integration of knowledge and value systems, increased community involvement, maintenance of healthy ecosystems, and meeting the every-day challenges encountered by resource users and managers. Many forest co-management applications are in their infancy; however, the concept is evolving as each new experiment in shared decision-making contributes insights. To add to our understanding of effective co-management processes and, specifically, to contribute to co-management of the John Prince Research Forest, the *Improved Partnerships* stream is working to determine under what con-

ditions forest co-management is viable and to develop methods to facilitate effective co-management practice.

Throughout February 2005, the *Improved Partnerships* stream began work on analysing interviews conducted with 56 local experts from Tl'azt'en Nation, University of Northern BC, Fort St. James, and Nak'azdli First Nation concerning how forest co-management should work. Already, many interesting results have emerged. Research participants have addressed numerous elements critical to an effective co-management process, including: communication, community participation, knowledge systems, representation, decision-making, capacity and support, relationship building, partnership structure, and a planned approach. Some of these ideas are captured in the quotations below.

Guarantee equal power sharing among co-management partners: "Both groups involved in the JPRF have an equal say in how it works ... that to me is the most important guiding principle."

Monitor and assess the process of co-management: "The key role of the board is to constantly revisit their goals instead of just dealing with the decision of the day. How is the vision coming along? How is the other partner doing? ... How they are feeling about things? ... Do a constant reassessment."

Utilize both traditional knowledge and science as an integral part of shared decision-making: "Always bear in mind that they are two very different types of knowledge and that they are both very valuable, important. One doesn't trump the other ... You have to look at the amount, quality and content of each separately and have them both bear on the question."

Create a common vision and shared goals developed from a well defined set of local issues: "There should be a shared list of goals and outcomes and expectations, and the more that those are met, the stronger the relationship will be."

Partner communities should provide support for co-management: "You have to have support and involvement and investment of the top levels of the organizations involved."

Participants' thoughts and ideas about the critical components of co-management

Concentrate on developing an effective process rather than imposing time constraints or focusing on end results: "Don't be obsessed with efficiency, because co-management is not efficient. Be willing to embrace the complexity that's involved in co-management. It's messy, but it's well worth it to make this investment of your personal time and energy."

Establish effective internal communication links between board members and their constituents: "Communication is critical and that's a big responsibility of a board member. ... Both sets of directors need to be feeding back into their communities what's going on and then taking the interests of the community to the board."

Develop a communications strategy to share information about the JPRF: "Co-management is not something that is very common in this country and so get the word out... Here is what we found works well. Here is where we have some more work to do. Get the word out."

Host events and activities to foster community support: "I think the forest should have a lot of events and activities that are open to people from the community to participate in. Actively go out there and advertise and try to get people to come to these events. Attract a broad range of people from the community and make them feel like the research forest is real to them."

Local Perspectives on Forest Co-management Outcomes

by Erin Sherry and Sarah Parsons

Criteria and indicators (C&I) are tools that can be used to collect and organize information for conceptualizing, implementing, monitoring, and evaluating sustainable forest management (SFM). Much work on C&I has occurred at international, national, and regional scales. However, researchers and practitioners have struggled to develop relevant C&I at the local level, with Aboriginal communities, in a co-management context, and about social, cultural, and non-timber values.

To address these challenges, we developed and applied a set of methods to ascertain meaningful and locally appropriate C&I of forest co-management. Using the case of the John Prince Research Forest, we investigated co-management outcomes and processes important to local people. Using a community-centred approach, our research drew on the knowledge and experience of 56 local experts from TI'azt'en Nation, Fort St. James, Nak'azdli First Nation, and University of Northern BC. Participa-

tory analysis of interview findings resulted in the identification of 19 criteria and 86 indicators of forest co-management outcomes (see diagram). These represent the key elements local people expect from co-management and measurable attributes that provide information on the effectiveness of the JPRF.

Findings show that local people expect co-management to address a range of natural, cultural, social, and economic values. The division of values into separate categories is for convenience and clarity. There are many overlaps and interconnections between these elements; for instance, maintaining forest ecosystem condition and function is critical to the continuation of traditional land use activities, the preservation of TI'azt'en culture, and the health and well being of local communities. There are also many different layers of meaning contained in the results; for example, Aboriginal and non-Aboriginal people assign shared and distinct values to criteria such as

local economic development, education opportunities, and cross-cultural sharing and learning.

The priorities shown here represent the current imperatives of JPRF co-management partners and stakeholders. It will be important to review the appropriateness of these C&I over time. The uniqueness and diversity of local values revealed in this framework underline the importance of developing C&I specific to a particular location, management arrangement, and group of people. While these C&I demonstrate what is important on the co-managed John Prince Research Forest, they cannot be automatically applied to other co-management arrangements. It is likely, however, that the C&I identification methods developed in this case can be applied elsewhere. Other co-management groups may wish to consider the applicability of JPRF C&I to their own needs or use them as a starting point in their own C&I development process.

Major Themes Identified

Social and Cultural Themes

- Cross-cultural Learning and Sharing
- TI'azt'en Culture
- Community Health and Well-Being
- Education and Training
- Recreation

Environmental Themes

- Forest Ecosystem Condition and Function
- Holistic Forest Management
- Traditional Land Use

Economic Themes

- Local Economic Development
- Employment

Management Themes

- Meaningful TI'azt'en Participation in Forest Management
- Partnership Building
- Business Management
- Facilities and Infrastructure
- Research
- Demonstration and Outreach

Through our research, we identified four major local themes related to co-management outcomes (see left). Within these themes are 19 criteria and 86 indicators. Below is an example of criteria (headings) and indicators (bulleted) within three social and cultural themes.

Cross-Cultural Learning and Sharing

- Cultivate cross-cultural awareness and understanding
- Provide diverse opportunities for cross-cultural learning

TI'azt'en Culture

- Promote cultural revitalization
- Promote cultural rediscovery

Community Health and Well-Being

- Contribute to the quality of life in surrounding communities
- Develop and maintain programs that promote social well-being
- Foster empowerment through the co-management experience
- Contribute to community development

Student View: Early Steps and New Opportunities

Sarah Parsons is a graduate student on the *Improved Partnerships* stream. She has a BSc in Natural Resource Management from UNBC, and is a Registered Professional Forester.



When I began working with the *Improved Partnerships* stream in 2003, I had no idea what to expect. With little experience in the social sciences, I had to learn quickly how to prepare for and conduct interviews. Although I was quite nervous, careful training and the good nature of our participants helped me successfully record individuals' perspectives on co-management of the John Prince Research Forest.

In September 2004, I registered as a graduate student at UNBC. With what I had learned about the JPRF and my research team, I was eager to continue working on the project and earn my Master's degree in Geography at the same time. I have taken courses in Research Design and Methods, Aboriginal Geography, an Independent Study, and participated in two Graduate Student Seminar classes. In Aboriginal Geography, I am reading about the history of First Nations in British Columbia, and will write a literature review on First Nations' involvement forestry. In my Independent Study, I am working with Dr. Pam Wright and Dr. Erin Sherry on exploring criteria and indicators literature to determine my methodology. I have recently

delivered a presentation on *Improved Partnerships* stream research to fellow graduate students in my Seminar class.

I have had the opportunity to participate in conferences, both sharing my experiences and learning from others. Most recently, I attended the National Aboriginal Forestry Association's annual conference in Kelowna, British Columbia, where I heard about the challenges of other First Nations at the community and national level. On March 12th, I presented a paper at the Western Division of Canadian Association of Geographers conference in Lethbridge, Alberta. I'm excited about the work we're doing, and am eager to share what we're learning with others.

Research Plan

So far, the *Improved Partnerships* stream has identified criteria and indicators (C&I) of JPRF co-management. To put this C&I framework into action, measures must be developed to evaluate the achievement of each criterion and its associated indicators. Because of the extensive scientific work on measures, I am focusing on Aboriginal perspectives by working with Tl'azt'en Nation. My research will develop Tl'azt'en measures of social and cultural indicators, as well as a community-based process for doing so.

Specific research questions are:

How can measures of Tl'azt'en's values and expectations for the JPRF be identified, evaluated, and selected?

What are good measures of Tl'azt'en values and expectations for the JPRF? What do Tl'azt'enne define as good measures?

How do Tl'azt'en measures and the approach identified compare to those developed by other Aboriginal or non-Aboriginal groups? How do definitions of good measures compare with others? What reasons can be given for these results?

Background on Measures

For this project, we define measures as: the signs or signals that can be used to evaluate criteria; measures can be quantitative (numerical) or qualitative (descriptive). Other projects have used terms such as local level indicators or verifiers as synonyms for measures.

The quality of measures developed for other projects has often been poor. In reporting stages, measures have been found to lack breadth, manageability, and credibility. Measures must be relevant, practical, sensitive to change, predictable, understandable, measurable, valid, and have targets. Common setbacks to data collection include: availability of appropriate data, sufficient time and resources to collect and manage data, and support from local institutions and communities. Data must be current, direct, precise and accurate, and of appropriate scale. In particular, outcome-oriented indicators of social and cultural values are needed.

Education from the Past for the Future

By Chris Jackson and Sophia Raby

The recent tsunami tragedy in South East Asia has highlighted the value, and critical importance of not just preserving indigenous traditional knowledge, but of practicing and incorporating it in current society's consciousness. On the remote Andaman and Nicobar Islands, ancient oral histories were critical to saving almost all the members of

the indigenous tribes. Traditional knowledge of the interconnections between the ocean, earth, and changes in animal behaviors sent these people fleeing from the shores when the first tremors began. In contrast, those who moved to these islands only 600 years ago were severely impacted, with about a quarter of their population dead or missing.

This dramatic example of the relevance of traditional knowledge highlights central issues for our work in the Education Stream. Western culture's dominance has created a global demand for western education, particularly science, which generally dismisses or undervalues traditional knowledge. Only recently have indigenous voices been heard in their demands for recognition of their views and cultural practices.

Educational practices are starting to recognize the need to better serve indigenous peoples, while also recognizing that a diversity of knowledge will be increasingly important as we face the impacts of diminished natural resources and accelerated environmental change.

Researchers have identified a variety of reasons for indigenous students' general lack of success in the sciences. Common elements include:

- Traditional teachings are not considered academically relevant, leaving students who have traditional knowledge with unreconciled, contradictory cultural views, and uncertainty about what to believe and apply in their everyday lives;
- Conflicting messages regarding the purpose, value, and relevance of science forces students to bridge cross-cultural boundaries with little to no support in order to be successful; and
- An increasingly structured, authoritarian, linear approach to education as students advance through school, which usually excludes other viewpoints. Some authors connect these teaching styles with diminished aboriginal student performance.

Although discussion continues, many believe that improved science outcomes for First Nations students will demand:

- Recognizing the importance of indigenous sense of place, land, and territory;
- Recognizing and honoring knowledge, skills, and languages that students bring with them; and using these as a basis for science instruction in order to create an inclusive learning environment;
- Incorporating local parental and community values, knowledge, and control in

curriculum development and implementation. This will enhance the relevance of science content through local terms, stories, and examples, and make connections between traditional teachings and science. Educators must guard against using outdated stereotypical representations of a culture which miss the changing realities students experience;

- Highlighting the contemporary nature of some traditional teachings and their scientific connections in order to increase self-concept and achievement for First Nations students, and democratize the learning environment;
- Incorporating First Nations language in science teaching;
- Incorporating culturally appropriate teaching methods and traditional practices. Though debate exists about "aboriginal learning style(s)", the general movement towards "hands-on learning" is considered beneficial;
- Using comparative approaches to assist with cultural border crossing, have students recognize the multiple ways cultures developed in relation to their environment, culture, and history; and emphasize how science and technology are connected;
- Improving counseling services for aboriginal students, placing more emphasis on science/technology career options, developing role models and mentoring opportunities that utilize aboriginal resource people and conventional scientists / technologists, and showing how science is a vital part of the local and wider community.
- Modeling aboriginal control over scientific research and ensuring indigenous control over any dissemination of, or research into traditional knowledge.

Several of the above suggestions are similar to those used to improve outcomes for women in science; others draw on educational models that improve community/parent participation and control of learning, individualize education, increase cultural diversity in the learning environment, use outdoor and environmental education methods, or focus on Place-Based Learning. Rural and socio-economic factors also play a role and need consideration. With these ideas, the Education Stream is working to develop test curriculum.

First Nations knowledge is relevant today. Like other societies, indigenous communities are evolving, and increasingly seeking ways to reconcile western and traditional views. Wisdom learns from the past; by diversifying memories and experience, we gain understanding for a stronger future.

Boba's Story as told by Deborah Page

My grandmother, Veronica George, told me a story once about a woman named Boba. I will tell a very bad version of that story. Boba was an elder that lived near what is now Nadleh Whut'en. Boba and her family were out on the land in the fall gathering food for the winter when Boba became ill and died. The family was distraught by the death of their mother. They were far away from the main village so they wrapped their mother in a blanket and placed her near their temporary shelter as the finished their fall preparation.

While the family were eating breakfast on the third day after their mother had died, Boba began to move. Everyone was so shocked that they ran away into the bush. After a little while the wife of one of Boba's sons went back into the camp and gently unwrapped her mother in law. Boba had come back to life but she was not able to speak. The daughter warmed some bear grease and used a feather and put drops of the grease into the back Boba's mouth. Finally Boba was able to speak. The daughter fed her some fish broth and Boba gained back some strength.

After some time, Boba's children started tentatively back to the campsite. Boba said, "I have come back because I have something very important to tell my people. Listen carefully. While I was away, I saw some very strange sites. I saw people that do not look like us that will come to this place. They will come across a big body of water. I saw a trail of two shiny sticks that a huge "machine" will run along. I saw sickness."

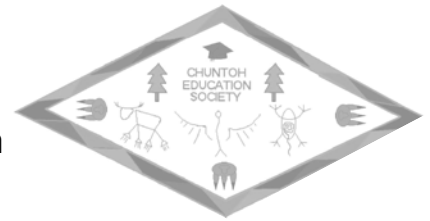
Boba went on and told of all of the things that she saw. She also told of a time that the people will be given things for free. They will get food and shelter. She warned the people that they will be fooled by these gifts because they will make them weak. She also warned that these gifts will not last forever and then they will stop and the people will suffer because they will have forgotten how to live off of the land. She warned not to be fooled by these things. She said that the people should not forget how to live off of and respect the land.

Boba only lived for a few days more. She told her family that she would not be with them for long. She came back to warn them of all the things that were to come. Boba passed away for good and the family brought her back to the village for cremation.

This is a very loose translation of the story that my grandmother told me because true to the warning of Boba, I have lost the knowledge of how to live off of the land and I have all but lost my language.

Community News: Chuntoh Education Society Awarded Grant for Outdoor Education Program

By Erin Sherry and Beverly Leon



The Chuntoh Education Society (Chuntoh) was formed in 2002 in response to the need for outdoor education programs targeting children and youth that combine science and traditional knowledge, promote cross-cultural learning, stimulate interest in environmental studies, and prepare young people to pursue science in high school and at the post-secondary level. Chuntoh is affiliated with the John Prince Research Forest (JPRF), a 13,000 ha working forest jointly managed by the University of Northern British Columbia (UNBC) and Tl'azt'en Nation for research, education, and community development purposes. The JPRF provides the setting and facilities for Chuntoh program delivery.



Chuntoh is a volunteer organization, whose Board of Directors includes representatives from Tl'azt'en Nation, School District 91, the University of Northern British Columbia, and the John Prince Research Forest. Their mandate is to provide children and youth with environmental and cultural education opportunities in a focused and positive outdoor atmosphere. Since its inception, Chuntoh has received small grants from the First Nation Schools Education Society, Tl'azt'en Nation, and Chuzghun Resources Corporation to support its activities and operations.

In 2003, a preliminary education framework - Yunk'ut Whe Ts'o Dul'eh or We Learn from Our Land - was created and integrates Dak'elh cultural material with elementary school science learning objectives in an outdoor atmosphere. The program consists of five seasonal modules based on traditional

cultural activities, technologies, values, and knowledge. Cultural components are linked with complementary scientific concepts and methods. The program offers a variety of activities for children and youth of different abilities. Fall and Winter modules have been successfully developed and delivered in pilot projects with three local First Nation schools from Tl'azt'en Nation, Nak'azdli First Nation, and Yekooche First Nation. Chuntoh intends to evaluate and revise this preliminary program framework over time in partnership with Elders, Dak'elh language experts, community members, teachers, and students.

The Yunk'ut Whe Ts'o Dul'eh program attempts to address local education needs and priorities, and to benefit local students and communities by meeting the following objectives:

1. deliver a culture-based science program to primary school First Nation students that emphasises the links between traditional knowledge of the land and the natural sciences;
2. teach scientific and cultural concepts in an outdoor, wilderness setting and engage students in hands-on learning, personal growth, and re-discovery;
3. promote a variety of careers locally available in the area of natural resource management, including forestry, fisheries, wildlife management, and recreation and tourism careers, and utilize local First Nation professional as role models and mentors;
4. involve Elders and cultural leaders in disseminating cultural knowledge to the younger generation, and train and employ community members to deliver outdoor

education programs;

5. provide local, non-Aboriginal students with positive opportunities for cross-cultural learning and expose them to the breadth and complexity of local First Nations' culture and knowledge; and,
6. encourage Aboriginal students with exceptional interest in science to participate in local environmental research and monitoring projects.

Over the past year, Chuntoh has sought funding to continue curriculum development and testing. Chuntoh is very pleased to announce it has been awarded \$50 000 from PromoScience, a program of the Natural Science and Engineering Research Council of Canada, for the further development and implementation of the Yunk'ut Whe Ts'o Dul'eh program in 2005! PromoScience provides support for organizations that are opening science and engineering doors for Canada's young people and are helping young minds ask big questions.

This funding will allow Chuntoh to continue work in critical areas, including:

- create and acquire teaching materials;
- delivery of Yunk'ut Whe Ts'o Dul'eh modules to First Nation and Public Schools in the Fort St. James area;
- pursuit of new sources of funding;
- raising awareness about Chuntoh and sharing project results; and,
- establishing a program review and evaluation process.

For further information about Chuntoh, please contact Dexter Hodder or Beverly Leon at the John Prince Research Forest Office in Fort St. James, BC. They can be reached by phone at (250) 996-0028 or by e-mail at dex-jprf@telus.net or bev-jprf@telus.net.

Yunk'ut Whe Ts'o Dul'eh – Preliminary Program Framework

| Module Themes | Traditional Knowledge Topics | Scientific Knowledge Topics |
|--|---|---|
| Fall Travelling By Canoe | Spiritual Interconnections; Travelling; Making Dugout Canoes | Ecosystem Concepts; Biodiversity; Water Conservation; Forest Ecology; Astronomy |
| Winter Storytelling | Pithouses; Snowshoeing; Trapping; Traditional Winter Camping; Storytelling | Animal Winter Ecology; Tracking; Weather; Survival Skills; Forest Management |
| Early Spring Survival | Cambium Stripping; Land Ethics; Travelling and Camping | Tree Identification and Physiology; Life Cycles; Wildlife Research |
| Coming of Summer Time of Renewal | Gathering Food and Material plants; Traditions and Rituals; Cultural Values | Plant Identification and Ecology; Habitat Features; Navigation; Soil Conservation |
| Summer Time of Plenty | Gathering Food and Medicine Plants; Fishing; Hunting | Plant Identification; Bird Identification, Archaeology; Fisheries Management |