

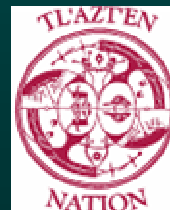


Identifying, developing, and evaluating Tl'azt'en Nation environmental measures for application on the co-managed, John Prince Research Forest



Beverly John, Deanna Yim, Christopher Johnson, Erin Sherry, Amelia Stark

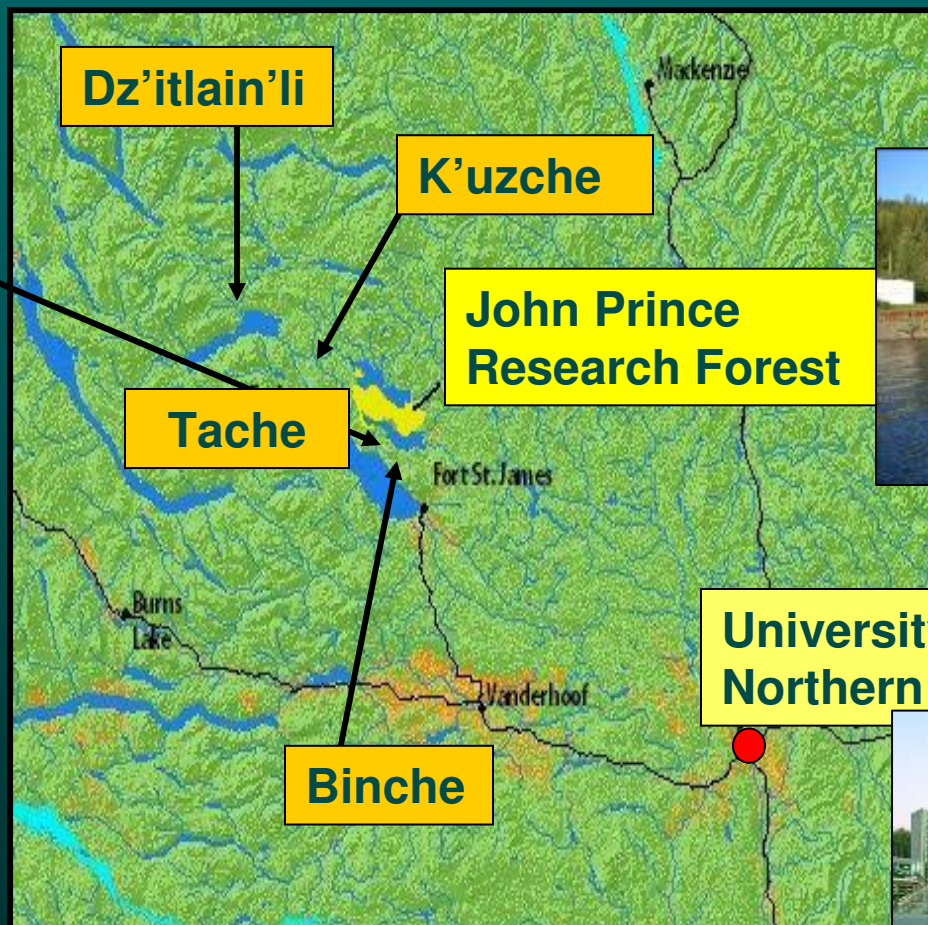
A Tl'azt'en Nation- University of Northern British Columbia Community University Research Alliance Project



**March 9, 2009
APRC NAFA workshop**

Study Area and Communities

Tl'azt'en Nation
"People by the edge of the bay"



University of Northern BC



TI'azt'en Nation - UNBC Community - University Research Alliance (CURA)

'partnering for sustainable resource management'



TI'azt'en Traditional Ecological Knowledge



Science & Environmental Education

Comprised of four research streams



Improved Partnership



TI'azt'en Ecotourism

TI'azt'en Nation - UNBC CURA Goal

(<http://cura.unbc.ca/>)



TI'azt'en Traditional
Ecological
Knowledge



To enhance the capacity of TI'azt'en Nation to effectively engage in culturally and ecologically sustainable natural resource management, and to enhance the capacity of UNBC researchers and their students to effectively contribute to First Nation community needs through collaborative research



Science &
Environmental
Education



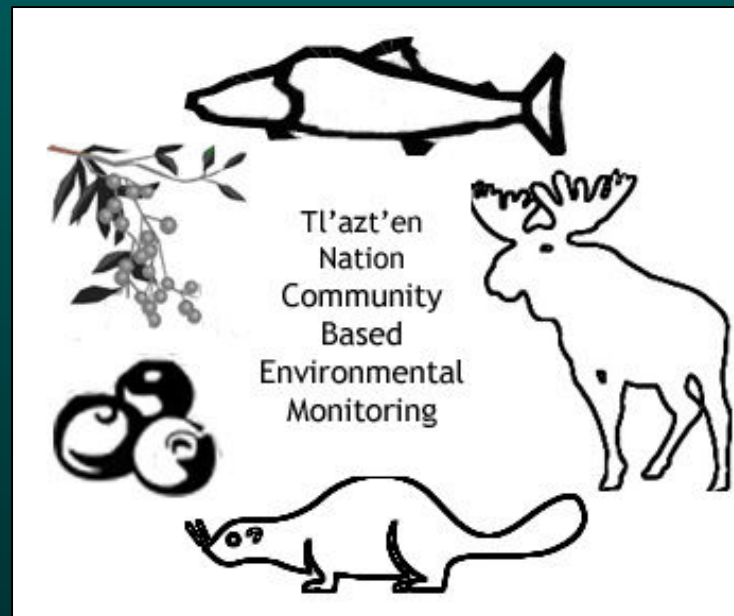
Improved Partnership

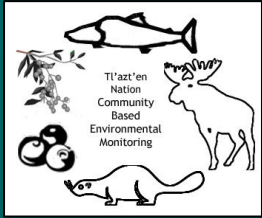


TI'azt'en Ecotourism

~ From the Improved Partnership CURA Research Stream ~

**Evolving Co-Management Practice:
Community-Based Environmental Monitoring with Tl'azt'en Nation
on the John Prince Research Forest**





Community-Based Research Framework

→ Research was directed and conducted by cross cultural teams:

Steering Committee:

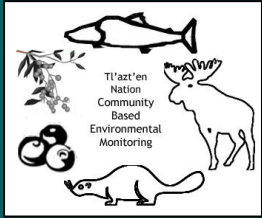
- 2 university professors
- 2 Tl'azt'en Nation community researchers
- 2 John Prince Research Forest Staff

Research Team:

- 2 university professors
- 2 Tl'azt'en Nation community researchers
- 2 Tl'azt'en Nation research assistants

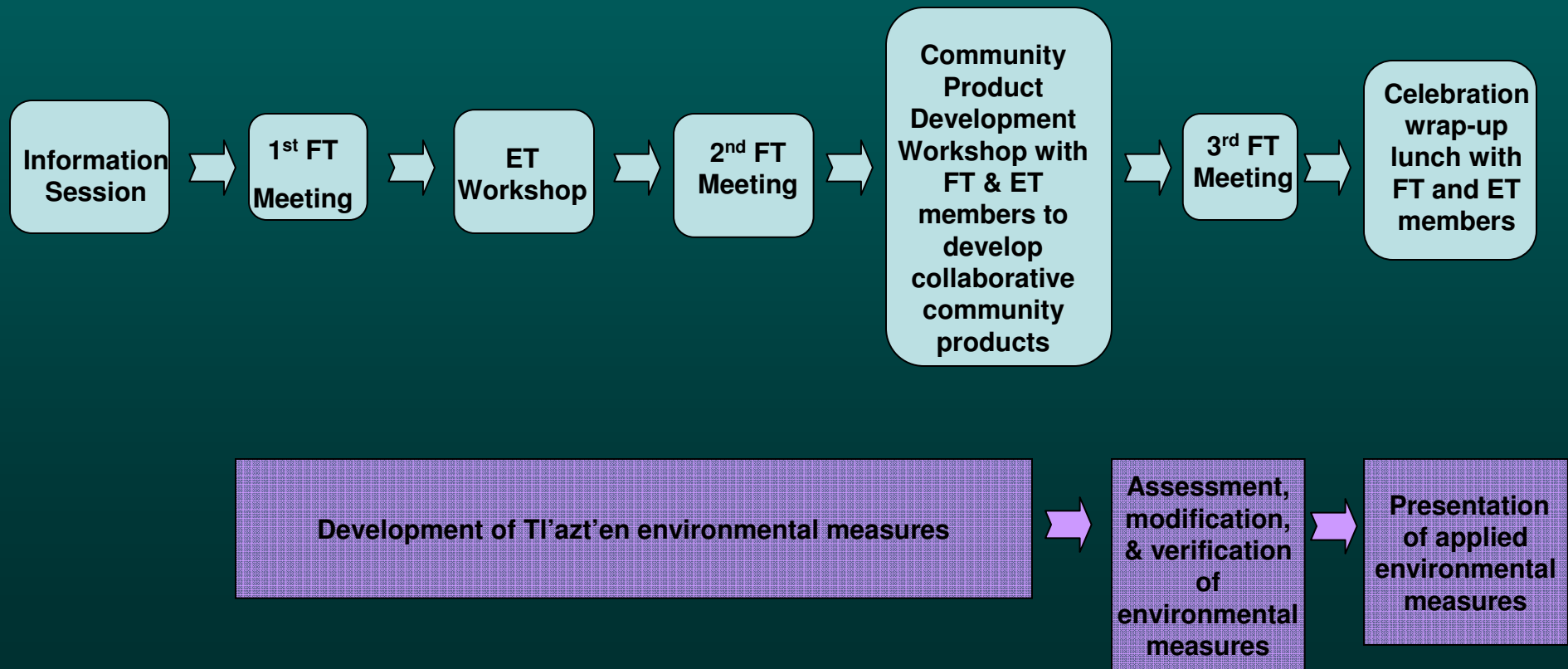
→ Tl'azt'en Nation research participants were organized into two teams:

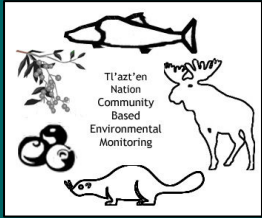
- Elders Team
- Forest Team



Research Methodology

→ We evaluated and iteratively adapted our community-based research methods using the results of in-progress evaluations





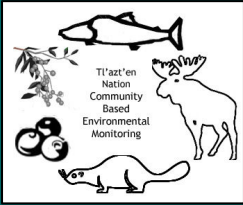
Evaluation Results

- **High participation rates:**
 - **86% Forest Team** (n=12)
 - **100% Elders Team** (n=10)
 - **No dropouts** (n=19, as 3 Elders participated as members on both teams)

- **Overall project satisfaction:** - Rated between the categories of 'very satisfied' & 'extremely satisfied' (n=10)

- **Other areas of evaluation:**
 - team member satisfaction
 - team member independence
 - team member personal/ professional development
 - conduct of researchers
 - relationship building potential
 - areas of improvement

- **After every in-progress evaluation, results were summarized and shared with all team members at the following research event** (including any subsequent modifications)



TI'azt'en Nation Environmental Measures

→ With our Forest and Elders Team members we developed TI'azt'en environmental measures related to the traditional use of:

Talo ha'hut'en



Photo by: Gloria Johnnie

Fishing Salmon

Huda ha'hut'en



Photo by: Nathaniel Tom

Hunting Moose

Tsa ha tsayilh sula



Photo by: Michael Aslin

Trapping Beaver

*Yoo ba ningwus
hunulht'o*



Photo by: Deanna Yim

**Gathering
Soapberries for
Medicinal Use**

*Duje
hoonayin*

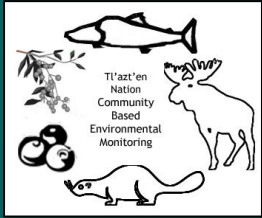


Photo by: Mary Lebrun

**Picking
Huckleberries**

→ We also developed TI'azt'en environmental measures for:

- monitoring environmental change
- monitoring adherence to TI'azt'enne traditional environmental land use methods and principles



Examples of Tl'azt'en Nation Environmental Measures

Talo ha'hut'en ~Fishing Salmon



→ Description of body condition of salmon caught from Stuart Lake, by run

Huda ha'hut'en ~Hunting Moose



→ Description of the fat around the organs (kidneys) of male moose hunted, & specific date of hunt

Tsa ha tsayilh sula ~Trapping Beaver



→ Description of beaver abundance observed (through tracks, sign, observations, etc.) in a particular area (i.e. *keyoh*), over a particular time

Yoo ba ningwus hunulht'o ~Gathering Soapberries for Medicinal Use

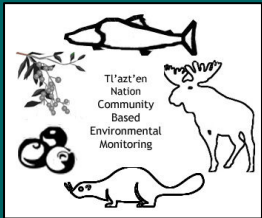


→ Number and description of soapberry picking locations appropriate for medicinal use, per season

Duje hoonayin ~Picking Huckleberries



→ Number of huckleberries picked considered to be large, per picking period



Tl'azt'en Environmental Monitoring

Team & community meetings to evaluate and discuss monitoring results



3

Adjust John Prince Research Forest co-management and community-based environmental monitoring goals (if necessary)

4



2

Tl'azt'en Nation Community-Based Environmental Monitoring

Tl'azt'enne Environmental Assessment of Salmon Health in Stuart Lake

Monitoring Team:

- _____ (Elders Team Member)
- _____ (Forest Team Member)
- _____ (Youth Team Member)

Location of Monitoring: (please describe & identify on map)

Date of Monitoring: _____
Time of day: _____

1

Community-based environmental monitoring

Develop additional indicators and measures of environmental health (if necessary)



TI'azt'en Nation Research Protocols

→ Evaluation results from this project and the experience of the CURA Project over these past five years by TI'azt'en Nation, the University of Northern BC and the John Prince Research Forest will be used to:

- enhance the existing TI'azt'en Nation Research Protocol that would highlight ethical co-managed research and put in place procedures to inform the process of research in TI'azt'en territory.



Conclusion

- We developed and evaluated TI'azt'en Nation environmental measures through an iterative, adaptive, community-based research framework
- We evaluated research methods through in-progress & final evaluations
- We developed TI'azt'en Nation environmental measures for:
 - 5 traditional use activities and their representative species
 - monitoring environmental change
 - monitoring adherence to TI'azt'enne traditional environmental land use methods and principles
- The results of this research will be applied in a TI'azt'en Nation community-based environmental monitoring initiative on their co-managed John Prince Research Forest

Snachailya

(Thank you & Acknowledgements)

- Tl'azt'en Nation
- Tl'azt'en Nation Chief and Council
- Elders and Forest Team members
- Eugene Joseph Elementary School Gr. 5,6,7 class
- **Supervisors:** Dr. Christopher Johnson, Dr. Erin Sherry
- **Steering committee members:** Sue Grainger, Dexter Hodder, Bev John, Amelia Stark
- **Research assistants:** Annie Anatole, Theresa Austin
- **Committee members:** Karyn Sharp, Dr. Pamela Wright
- **CURA project members**
- **Funding:** Social Sciences and Humanities Research Council of Canada through their Community-University Research Alliance (CURA) program, Real Estate Foundation of BC, John Prince Research Forest