Tl'azt'en Nation and the University of Northern BC Community-University Research Alliance: Partnering for Sustainable Resource Management

Strengthening Science Literacy through TEK*

The Research Team: Christine Jackson, Beverly Leon, Deborah Page, Sophia Raby, Amelia Stark

** Traditional Ecological Knowledge*

Tl'azt'en Nation and the University of Northern British Columbia

CURA Community-University Research Alliance Partnering for Sustainable Resource Management

CURA (Community-University Research Alliance) funding supports research partnerships between communities and universities to address community needs.

In 2004, Tl'azt'en Nation and the University of Northern British Columbia (UNBC) were awarded the CURA grant: *Partnering for Sustainable Resource Management*. This extends a relationship built on their current co-management of the John Prince Research Forest.

The Partners

- **Tl'azt'en Nation** *"People by the edge of the bay"*: Tl'azt'en Nation's 1300 members live predominately in several remote, rural communities in north-central BC. Tl'azt'enne rely heavily on forest-based economic activities. They have a strong connection to their ancestral land which provides their resource base, and their sense of self and place.

- **UNBC:** "Located in the North, for the North," this small research-intensive university is distinctively northern in character. Its education and research programs are responsive to its region.

Background

Tl'azt'enne want direct control of, and to fully participate in, the management of their communities and natural resources.

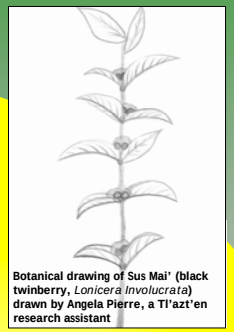
This partnership will:

- enhance the capacity of Tl'azt'en Nation to effectively engage in ecologically and economically sustainable natural resource management
- develop UNBC researcher and student capacity to effectively contribute to First Nations communities through collaborative research
- assist Tl'azt'enne in the development of ecologically, economically, and culturally sustainable communities
- focus on 4 research themes
  - Improved Partnerships
  - Traditional Ecological Knowledge
  - Ecotourism
  - Science/Environmental Education

The CURA Steering Committee

Chuntoh Education Society summer science camp (photo courtesy of Chuntoh)

Vision



Botanical drawing of Sus Mai' (black twinberry, *Lonicera Involucrata*) drawn by Angela Pierre, a Tl'azt'en research assistant

- To develop an understanding of Tl'azt'en educational philosophy, values and goals so that potential educational programs designed for Tlazt'enne youth:
  - integrate Tl'azt'en TEK with contemporary science
  - incorporate language and culture
  - address the learning styles of Tl'azt'enne
  - enhance retention and interest in science
  - build capacity in resource management
  - are supported by the community
  - are holistic, hands-on, activity-based, experimental and culturally-appropriate
  - focus upon the natural resources of the Tl'azt'en-UNBC co-managed John Prince Research Forest

- To maintain, enrich and incorporate the cultural and linguistic integrity of the Tl'azt'en Nation into educational programs developed for Tl'azt'enne
- To identify and define model teaching methods appropriate for Tl'azt'en capacity building in TEK and contemporary science literacy in order to improve science education outcomes
- To encourage a sense of self-efficacy, personal success, and economic sustainability amongst Tl'azt'enne which will assist in the development of a sustainable community. Tl'azt'en TEK can form the basis for the future management of their Nation

The Education Focus

Sustainability in natural resource utilization requires current and future Tl'azt'enne to be literate in their own Traditional Ecological Knowledge (TEK) and contemporary science so that they can effectively manage their communities and natural resources.

Educational challenges identified by Tl'azt'en Nation include:

- Deficiencies in TEK transmission from older to younger generations
- Low enrollment levels in secondary school science/math education
- Declining high-school graduation rates

The CURA supports Tl'azt'en youth who are learning about community-based research. See their work at: http://www.tlc.baremetal.com

Accomplishments To-Date

- Development of an annotated aboriginal education literature database
- Evaluation of past Tl'azt'en programs
- Identification of provincially, nationally, and globally recognized aboriginal education programs that incorporate TEK-Science
- Educational capacity building for Tl'azt'en youth who support the project by:
  - transcribing existing TEK
  - gathering elder knowledge, particularly for medicinal plants, food plants and place-names
  - completing scientific drawings of local medicinal plants for TEK-Science curriculum development
  - developing websites and archival methods
  - developing database management, recording, and interviewing skills
  - practicing teaching and leadership skills (Science Camps, Aboriginal Day)
- Initiating focus group work to identify community educational values which will support an integrated TEK-Science curriculum

The Next Steps

Step 1: Determining Tl'azt'en Educational Philosophy through focus groups: Collaborating with Tl'azt'en Elders, parents/adults, professionals/educators, youth, and children to build a consensus regarding community educational philosophy, values and goals, and how these relate to the linkages between TEK, science, and sustainable resource management.

Step 2: Creating integrated TEK-science learning strategies and activities that incorporate Tl'azt'en values and content

Step 3: Testing and evaluating the products of Step 2

Step 4: Developing learning models based upon the successful strategies tested in Step 2

Step 5: Evaluating learning models

Further Resources

CURA website: http://cura.unbc.ca

Acknowledgments

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