

St'át'imc Traditional Ecological Knowledge in Support of FWCP Grizzly Bear Recovery Habitat Action in the Bridge River Restoration Area 2012

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St'át'imc Government Services

Purpose of the Document

This document summarizes information gathered to date on issues relating to Grizzly bear recovery and habitat mapping within the St'át'imc territory. It is a technical, working group level document focused within the northern St'át'imc Territory only. It describes St'át'imc values in relation to Grizzly bear, and input provided at meetings relating to the mapping process. This document does not represent consultation, approval, or consent of the St'át'imc, and does not remove the provincial government's duty to consult with St'át'imc communities, tribal councils, or St'át'imc Government Services (SGS) in relation to finalized map units and Grizzly bear recovery actions.

Area of Overlap with the Habitat Mapping Project

The Lillooet Timber Supply Area (TSA) overlaps the St'át'imc territory by 887,242 ha (or 78%). The entire TSA falls within 25km of the territory boundary. Six of eleven St'át'imc communities reside within the TSA boundary: Sekw'el'was (Cayoosh), T'it'q'et (Lillooet), Tsal'alh (Seton), Ts'kw'aylaxw (Pavilion), Xaxli'p (Fountain), and Xwisten (Bridge River). Both N'Quatqua (Anderson Lake) and Lil'wat (Mount Currie) have direct interest in the watersheds within the TSA.

St'át'imc Values

The St'át'imc have lived in their territory continuously and have not ceded their Title or rights to the land. In St'át'imc culture the people (úcwalmicw) and the land (tmicw) are inseparable (St'át'imc Land and Resource Authority 2004). Although work is now underway to revise the land use plan for the Territory, the vision and principles laid out in the draft plan remain key components of current discussions on the environment and land use, including principles for respect of the land and sustainability.

Grizzly bears feature prominently in St'át'imc culture and are recognized through oral history and stories, music, dance, carvings and art. The bear is seen as a transformer, as a powerful healer that works through dreams, as a guardian of the land, and as a teacher. Some of the stories are published, such as one in which Duffy Lake is referred to as the 'Mouth of the Grizzly' (Mack and Ritchie 1977). One story of particular relevance to the habitat mapping project involves how the Grizzly bear taught the

people to eat (oral history). Ongoing research at St'át'imc Government Services (SGS), Environment Program, is documenting the tremendous overlap between the traditional diet of the St'át'imc people and the Grizzly bear, which includes use of the same spring foods, berries, medicines and overlap in protein sources like fish and deer. In March, 2011, the St'át'imc Chiefs Council passed a resolution for recovery of the Grizzly bear (Appendix 1). In July, 2011, the umbrella species link was presented at the International Bear Association Meeting in Ottawa (Appendix 2).

Meeting Summaries

Two meetings were held to collect traditional ecological knowledge relevant to the bear habitat mapping project, and to assess the level of information summary needed for sharing the knowledge for the purpose of improving the habitat mapping project outcomes.

The first meeting was hosted by SGS on August 9, 2012 and included a project update component and a request for input into project components like habitat mapping and management actions. Information on attendance is in Appendix 3. Key messages from the group include:

- A holistic approach is needed to manage Grizzly bears, and whole areas need to be protected, not just small pieces.
- Corridors, or areas the bears move through to access these important spring and summer habitat areas, are critically important.
- Use the guiding principles and vision from the St'át'imc Land Use Plan, Draft 2004.
- Opportunities for St'át'imc people to be on the ground with researchers are critically important to ensure that values, places and animals are respected, and to build capacity.
- Provide the resolution (Appendix 1).
Affirmation of the oral history, and that traditional stories of the Grizzly bear indicate how bears are viewed by the people, that bears are part of the medicine wheel (animals of the West), and that dream work of the bears is important.
- A recommendation that St'át'imc plant names be included for some of the important spring bear foods and the berries (Appendix 4).
- Cultural awareness promotes better decision making and protection of St'át'imc values on the land. The role of the Grizzly as an umbrella species is important.
- Concern was expressed over receiving more project information on an ongoing basis, and that reports, updates, and maps should be made available to communities, not just to Matt Manuel at Lillooet Tribal Council.
- Plans must be living documents, with an eye towards habitat restoration and on the ground actions to ensure Grizzly bear recovery is achieved.

- Covenant agreements with private land owners should be considered to protect key Grizzly bear habitats that will not be covered under this project.
- What are the consequences to forest companies who do not follow through with the management in these specified areas? How will these new regulations be enforced by the provincial government? Monitoring and updates on compliance are critical to success. There is a role of St'át'imc communities in monitoring.
- Ensure this report contains language such that there is no impact to St'át'imc title and rights, jurisdiction, and future management or decision-making by the St'át'imc Nation (see Purpose).
- Encourage St'át'imc communities to actively practice their culture.

The second meeting was delayed until Jan 21, 2013, at which time it was held during a regular meeting of the St'át'imc Stewardship Advisory Committee (SSAC). The SSAC has representatives from ten of the eleven communities (Appendix 3). The focus of this meeting was specifically on berries, since at that time the project team had been quite successful at identifying and mapping spring habitats and Whitebark pine mapping was not yet available. The St'át'imc have some Traditional Ecological Knowledge (TEK) mapping for the northern part of the territory at a very large broad scale, i.e. general areas used for berry picking for three main species Saskatoon (*Amelanchier alnifolia*, Stáqwem), Soopolallie (*Shepherdia canadensis*, Xúsum) and Huckleberry (*Vaccinium membranaceum*, úsa7). The TEK maps could not be directly shared with the mapping project at this time, but a summary of berry picking areas by landscape unit is provided in Appendix 5. A more direct comparison of the final berry habitat map produced by this mapping project, and the St'át'imc TEK map will be completed at a later date to inform St'át'imc input to the final Specified Area package.

Berries are the most commonly used traditional plant food today. Key messages provided from this meeting include:

- Biodiversity is very important. What berries are growing back after logging? This should be fully assessed and reported so that the best strategies for producing berries can be determined. The process of improving knowledge on berry production requires this kind of monitoring and strategy adjustments.
- Berries need to be assessed in relation to an Old Growth Strategy. What is the current status of old growth forests in relation to logging activities and what is being done to ensure old growth, and the types of berries/plants that continue to exist in old growth forests, are maintained.
- One community uses berries as “anchors” for forest harvesting plans. If berries are present in a logging block layout then the design and reserve areas are adjusted to protect existing berry patches. This ensures there will be plants to recolonize the harvested area faster than if these berries are damaged or removed. Use of this concept and terminology is recommended.

- Special significance is placed on berry plants that occur on the edge of their “normal” range. For example, there are rare Saskatoon plants that occur at higher elevations than where Saskatoons are normally found. The St’át’imc recognize at least 7 types of Saskatoon plants. Plants on the edge of their range should be specifically protected from logging disturbance in reserves. These plants may be critically important in the face of climate change. The same concept applies to the occurrence of Huckleberry at low elevation.
- Burning is a traditional management strategy of the St’át’imc people to maintain the productivity of berry areas and medicinal plants. Typically areas were burned after harvest every few years to maintain the age distribution of patches, encourage new growth, and reduce competition. The burns were low intensity fall burns. Direct language around burning should be included in the management of berry areas.
- There is a need for more species at risk work to support management decisions in the territory. What will the management of these areas for Grizzly bears do for other species? There is a need to demonstrate how protecting areas for bears helps with other ecological values and ecological function.
- There was a recommendation to consider the United Nations language on biodiversity, and how their best practices might apply to the areas in question.
- There should be an assessment to consider how the forest health issues could impact the berry management and forest harvesting strategies being put forward. For example, how do the dying beetle-impacted forests affect the projected supply of berries on the landscape – with and without forest harvesting of these sites?
- The concept of ‘no net loss’ needs to become ‘net gain for recovery’. There are substantial cumulative impacts from the BC Hydro developments in the Territory. The remaining Grizzly bear habitats need protection and enhancement. The area must be left better after development has occurred. For example, when the work was done to replace the long bridge on highway 99 in 2012, Cayoosh (Sekw’el’was) workers were there to collect any plants and either took them to the nursery or replanted them on site after the work was done. It takes effort, but the result was worth it. This concept of ‘net gain’ is very critical and needs to be applied throughout the territory.
- Disturbed areas should be seeded with local, native seeds and should not include attractants like white clover.
- Regarding Whitebark pine, there was little feedback from the SSAC in terms of either mapping areas or current use of this traditional food source. Some SSAC members could recall collecting the pine nuts in their youth and some ongoing use by elders today. Whitebark pine nuts were collected from squirrel middens, and at least one elder recalls collecting directly from trees. There was no direct information on locations or collections areas provided at this time.

Regarding the request to see the management language, a copy of the draft General Wildlife Measure (GWM) language was sent out to SSAC members on Feb 18, 2013. A meeting was offered for the week of March 4-8, but no SSAC member requested that a date be set. No direct comments or e-mails were received on the GWM language by the time this report was written. The unit-specific final language will need to be provided to the St'át'imc.

Recommendations:

- Provide the final versions of the habitat maps to the SSAC committee for review and comment.
- Continue to provide updates of this project, and other projects relating to Grizzly bears, to the SSAC as a means of communicating its importance and progress.
- The finalized package of specified areas and unit-specific language must be available to the St'át'imc communities and SGS for review and comment.
- The concept of berries as anchor plants, for inclusion in reserve designs, needs to be considered to ensure berry patches quickly return to production. Particular importance was placed on berry plants that are on the elevational edges of their productive range (e.g. higher elevation occurrences of Saskatoon and lower elevation occurrences of Huckleberry) and this should be recognized in the final berry patch management language and/or best management practices.
- Burning is a key management strategy for Huckleberries and needs to be explicit in the GWM language. The burns need to be low intensity, shoulder-season burns such that they do not destroy the parent plants and soil.
- Understanding how the protection of this bear habitat will contribute to biodiversity goals and species at risk objectives would be useful information to include in reporting on this project. Utilizing the umbrella species concept of the Grizzly bear will make this work more culturally relevant.
- Provide the St'át'imc names along with the common and Latin names of the important Grizzly bear foods in recognition of their significance to the St'át'imc people and to promote cultural awareness and better decision making.

Reference List

Mack, Charlie and Ritchie, Baptiste. Lillooet Stories. Sound Heritage. Langlois, W. J., Cauthers, J., and Reimer, D. Aural History. Sound Heritage VI[1], 1-78. 1977. Victoria, British Columbia, Provincial Archives of British Columbia.

St'át'imc Land and Resource Authority. Nxekmenlhkálha Iti tmícwa. St'át'imc Preliminary Draft Land Use Plan, Part 1. March 2004. Part 1, 1-26. 2004. Lillooet, St'át'imc Land and Resource Authority. (available at www.statmic.net)

Appendices

Appendix 1: St'át'imc Chiefs Council Resolution on Recovery. March 2011

Appendix 2: Presentation provided to the International Bear Association. July 2011

Appendix 3: Meeting Participation

Appendix 4: St'át'imc names for important bear food plants

Appendix 5: Berry picking areas by landscape unit

Appendix 1:

The 3-March-2011 version of the resolution is provided below.

St'át'imc Chiefs Council Resolution








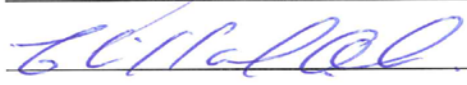



Duly passed at a St'át'imc Chiefs Council meeting, March 3, 2011 at Lillooet

WHEREAS:

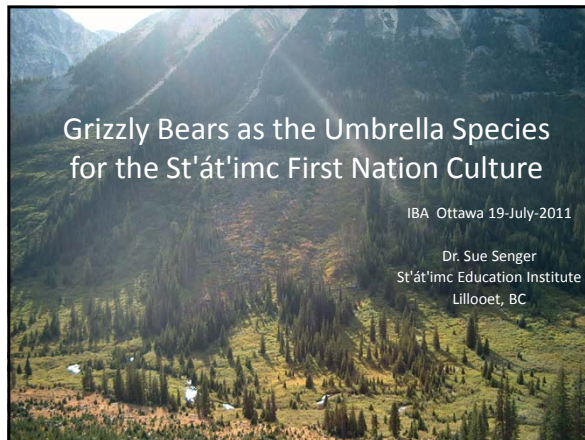
- A. We, the St'át'imc, hold title, jurisdiction, and responsibility throughout our territory, "we claim that we are the rightful owners of our tribal territory and everything pertaining thereto"... (Declaration of the Lillooet Tribe, May 10, 1911).
- B. We, the St'át'imc, intend to continue our practice of living in harmony with nature and of protecting for future generations the fish, wildlife, plants, water, air, lands and other resources of our territory.
- C. We, the St'át'imc, recognize Grizzly bears as an important umbrella species that needs protection, which in turn will assist us in protecting our cultural heritage on the landscape.
- D. We, The St'át'imc, are aware that the Grizzly bear populations within our territory are at risk and that immediate action is needed for the survival of this species.

THEREFORE:

- 1. The undersigned St'át'imc Chiefs stand in solidarity to declare that Grizzly bears will be protected throughout their traditional range.
- 2. The undersigned St'át'imc Chiefs declare that Grizzly Bear Population Recovery will be a primary focus such that in seven generations Grizzly bear populations will be healthy and will occupy their traditional range for time immemorial.
- 3. The undersigned St'át'imc Chiefs mandate that recovery will proceed according to the best available information and will include actions for:
 - a. Access management,
 - b. Human-bear conflict mitigation,
 - c. Livestock-bear interaction mitigation,
 - d. Critical habitat protection (e.g. avalanche chutes, herbaceous meadows, wetlands), and
 - e. Landscape level forage supply management (e.g. berry management, meadow restoration, fish management, etc.).
- 4. We the undersigned St'át'imc Chiefs call for the Province of British Columbia to also recognize the Grizzly bears in the Clear Range east of the Fraser River by establishing a Clear Range Grizzly Bear Population Unit under the Provincial management system to enable cooperative approaches for Grizzly bear protection and management.

Chief Leonard Andrew		Lil'wat
Chief Ralph Thevarge		N'Quatqua
Chief Brenda Lester		Samahquam
Chief Perry Redan		Sekw'elwas
Chief Patrick Williams		Skatin
Chief Shelley Leech		T'it'q'et
Chief Garry John		Tsal'alh
Chief Clifford Alec		Ts'kw'aylaxw
Chief Art Adolph		Xaxli'p
Chief Don Harris		Xa'xsta7
Chief Bradley Jack		Xwisten

Appendix 2:



St'át'imc Chiefs Council

3-March-2011

- The Council voted in favour of enabling this presentation at the IBA 2011, Ottawa

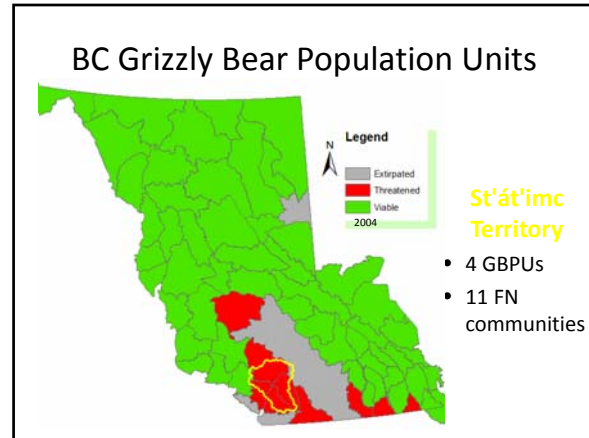
ST'ÁT'IMC EDUCATION INSTITUTE

Cathy Narcisse

The Lillooet Tribal Council
in partnership with NVIT
offers high quality academic education
programming that prepares students for further
trades and higher education opportunities

Outline

- Introduction
- Where we live
- Role of Grizzly Bear
 - Food and Cultural Significance
- Resolution for Recovery
- Plans for the Future



[Nxekmenlhkálha ti tmicwa](#)
(St'át'imc Land Use Plan - Draft)

*"The St'át'imc have lived upon the land since time began.
Our history is written upon the land.
Our history is passed on from generation to generation, through the stories and legends."
- St'át'imc elders*

Key Elements Include:
Water, Grizzly bear, Fish, Mule deer

1954: Shalalth woman drying berries.

Bears & Humans share:

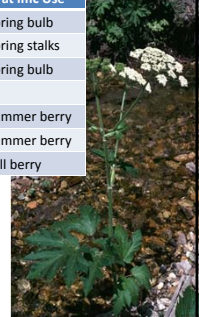
- Berries
- Fish
- Food plants
- Game species
- All of the Land.

Grizzly Bear Taught the People to Eat



Major Foods in Current Use

Plant	Bear Food	St'át'imc Use
Spring Beauty – <i>Claytonia lanceolata</i>	Spring bulb	Spring bulb
Indian rhubarb - <i>Heracleum lantanum</i>	Spring stalks	Spring stalks
Glacier lily – <i>Erythronium grandiflorum</i>	Spring bulb	Spring bulb
Saskatoon – <i>Amelanchier alnifolia</i>	Summer berry	Summer berry
Soopolallie – <i>Shepherdia canadensis</i>	Summer berry	Summer berry
Huckleberry/Blueberry – <i>Vaccinium spp</i>	Fall berry	Fall berry

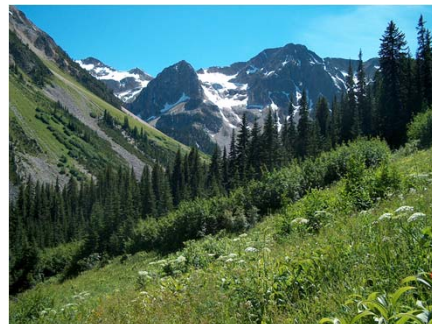


Traditional plants for the Douglas Fish Compensation works

Provided by
Chief Don Harris, Xa'xsta7

Plant	Grizzly Bears
Salmonberry - <i>Rubus spectabilis</i>	✓
Elderberry - <i>Sambucus racemosa</i>	✓
Thimbleberry - <i>Rubus parviflorus</i>	✓
Red huckleberry - <i>Vaccinium parvifolium</i>	✓
Salal - <i>Gaultheria shallon</i>	✓
Oval-leaved blueberry - <i>Vaccinium ovalifolium</i>	✓
Sitka mountain ash - <i>Sorbus sitchensis</i>	✓
Cascara - <i>Cascara sagrada</i>	?
Indian celery - <i>Lomatium nudicaule</i>	✓
Bitter cherry – <i>Prunus emarginata</i>	✓
Beaked hazelnut - <i>Corylus cornuta</i>	?
Devil's club - <i>Oplopanax horridus</i>	✓
Red-osier dogwood - <i>Cornus stolonifera</i>	✓
Soopolallie - <i>Shepherdia canadensis</i>	✓

If the Bears are Threatened,
The Landscape That Supports This Culture
is also Threatened



St'át'imc Chiefs Council Resolution Excerpts passed 3-March-2011 in Lillooet

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- Access management,
- Human-bear conflict mitigation,
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- Critical habitat protection (e.g. avalanche chutes, herbaceous meadows, wetlands), and
- Landscape level forage supply management (e.g. berry management, meadow restoration, fish management, etc.).

Plans for the Future: Strategic & Operational Direction

- Strategic Land Use Planning for the 11 communities & the Territory as a whole
- Explicit direction to industry to achieve Grizzly Bear Recovery

Plans for the Future: Education

- St'át'imc Education Institute bringing more students into Natural Resource fields

Land Use Planning Class
June 2010
At the Town Creek Burn



Northeast 30' x 30' Club
Membership
Committee:

T'ia'ni' Lilikani
Box 513
Lihoué, HI 96746
T (202) 258-4112
F (202) 258-4104

Island: Reef Blast

Box 180
Lihoué, HI 96746
T (202) 258-7423
F (202) 258-2443

Trifoli: Sunset Lakes

Box 738
Sunset, HI 96705
T (202) 258-0883
F (202) 258-6847

Reef: Franklin

Box 1310
Lihoué, HI 96746
T (202) 258-4000
F (202) 258-0000

Island: 30' x 30' Cape Cod

Box 500
Lihoué, HI 96746
T (202) 258-4236
F (202) 258-4230

Northeast 30' x 30' Club
Advisory Committee
(composed of health advocates
and leads of the Northeast
30' x 30' communities)

Chiff Lange - Trifoli
Kay Mitchell - Sunset
Chae Ili - Reef Blast
Joe Chesney - Hill Country
Angela Therap - Trifoli
Vanessa Thomas - T'ia'ni
Frankie Ili - T'ia'ni
Shirley Williams - Hill
Nancy Wilson

Two Islands Committee
Hill Coordinator
www.hillcountry.org
(202) 258-3005 (toll-free)
(202) 258-7525 ext.233

30' x 30' Adopts

Reef: Sunset Beach
Governmental Interface Liaison
Member - U.S. Delegate
258-258-0000
info@reef.org

There's a jungle out there!
(Living with the great work of being)

NORTHERN STREETMAC
COMMUNITY ENGAGEMENT
HEALTH HUB

880 Central Avenue

1500 Industrial Place
PO Box 1420

Lihoué, A.C. 96746
258-7525 (toll-free)

258-7519 (fax)

Web address:
hubs.attentions.net

Robert Narcisse



Appendix 3:

First Meeting August 9, 2012:

Attendees:

1. Randel Charlie, Lands & Resources Manager, Xa'xtsa
2. Pauline Peters, Stewardship Advisory Committee (SAC) Member -Samaquam
3. Larry Casper, SGS- Stewardship Advisory Coordinator
4. Kim North, Split Rock Environmental Nursery Manager
5. Fred James, Split Rock Environmental Nursery, Cayoosh
6. Travis Rankin, Split Rock Environmental Nursery, Cayoosh
7. Sam Copeland, T'it'q'et
8. Robert Leech, T'it'q'et
9. Carl Machell, Stewardship Advisory Committee (SAC) Member -T'it'q'et
10. Ceda Scotchman, T'it'q'et Elder
11. Doreen Copeland, T'it'q'et Elder
12. Gerald Michel, Lands & Resource Coordinator, Xwisten Band Council Member
13. Matt Manuel, Natural Resource Coordinator, Lillooet Tribal Council
14. Kelsey Alec, Ts'kwa'y laxw Lands & Resource Assistant
15. Justin Kane, Ts'kwa'y laxw Band Council Member
16. Ida Mary Peter, Lands Manager, Tsal'alth Band Council Member
17. Darwyn John, SGS-Wildlife & Lands Assistant
18. Denise Antoine, SGS- Wildlife & Lands Assistant
19. Sue Senger, SGS-Environment Lead, PhD, RPBio, PAg

Regrets:

20. Melvin Patrick, N'Quatqua Councillor

Second Meeting January 21, 2013:

1. Pauline Peters, Stewardship Advisory Committee (Samaquam -SAC) Member
2. Ida Mary Peter, Lands Manager, Tsal'alth Band Council Member (Seton Lake-SAC)
3. Carl Machell, T'it'q'et (Lillooet-SAC) Member
4. Marie Barney, T'it'q'et (Lillooet-SAC)
5. Howard Bob, Xaxli'p Band Council Member (Fountain-SAC; SSAC Co-chair)
6. Kelsey Alec, Ts'kw'ay laxw (Pavilion-SAC)
7. John Terry, Xwisten (Bridge River-SAC)
8. Travis Peters, N'Quatqua (Anderson Lake-SAC)
9. Bonnie A(Dunn), Sekw'el'was (Cayoosh-SAC)
10. Larry Casper, SGS- Stewardship Advisory Coordinator
11. Darwyn John, SGS-Wildlife & Lands Assistant
12. Denise Antoine, SGS- Wildlife & Lands Assistant
13. Sue Senger, SGS-Environment Lead, PhD, RPBio, PAg
14. Tony Hamilton, Ministry of Environment (guest)
15. Martina Namox, Minute Taker

Communication from Larry Casper, March 13, 2013:

The SSAC is represented by:

- 1) Tsal'alh (Seton Lake)— Ida Mary Peters, with Chief Garry/Crystal Branget as alts
- 2) T'it'q'et (Lillooet) – Carl Machell, with Marie Barney as alt
- 3) Ts'kw'aylaxw (Pavilion) – Kelsey Alec, with Councilor Justin Kane as alt
- 4) Xwisten (Bridge River) - John Terry, with Gerald Michel as alt
- 5) Sekw'el'was (Cayoose) -Bonnie A(Dunn), with Chief Michelle as alt
- 6) Xaxli'p – (Fountain) - Howard Bob, with Council member Jeff Saul as alt
- 7) Xa'xtsa (Douglas) – Randel Charlie as rep
- 8) Skatin – Xavier Williams (though he hasn't been able to attend a mtg)
- 9) N'Quatqua (Anderson Lake) – Melvin Patrick, with Travis Peters as alt.
- 10) Samahquam (Baptiste) – Pauline Peters
- 11) Lil'wat (Mt Currie) – Invited to participate - No identified rep

Appendix 4: St'át'imc names for important bear food plants

Table 1: St'át'imc names for important spring bear foods and the three main berry plants.

Common Name	Latin Name	St'át'imc Name	Pronunciation
Spring beauty	<i>Claytonia spp.</i>	skwenkwín	sh-qwin-queen
Cow Parsnip	<i>Heracleum lanatum</i>	hákwa7	huck-wa
Saskatoon	<i>Amelanchier alnifolia</i>	Stáqwem	chalk-um
Soopolallie	<i>Shepherdia canadensis</i>	Xúsum	hoosh-um
Huckleberry	<i>Vaccinium membranaceum</i>	úsa7	ou-sha

Appendix 5:

Table 2: Proportion of Landscape Units (LU) that are identified as having important berry picking areas in them, for LUs that are both within the St'át'imc territory and the Lillooet Timber Supply Area (TSA).

Landscape Unit Name	LU Area within Territory (ha)	General Picking Areas (ha)			Proportion of LU identified		
		Saskatoon	Soopolallie	Huckleberry	Saskatoon	Soopolallie	Huckleberry
Birkenhead	68,126	12513	36730	34475	0.18	0.54	0.51
Bridge	95,455		124	847	0.00	0.00	0.01
Carpenter Lake North	56,836	12863	41149	11203	0.23	0.72	0.20
Carpenter Lake South	38,965		7927	11435	0.00	0.20	0.29
Clinton	1,008		464		0.00	0.46	0.00
Connel Creek	38,895	15760	14505	9748	0.41	0.37	0.25
Dash	525		389	525	0.00	0.74	1.00
Duffy Lake	88,649	1610	34236	38606	0.02	0.39	0.44
French Bar	17,586		5885	15003	0.00	0.33	0.85
Gates	35,405	8823	13118	4490	0.25	0.37	0.13
Gun	48,655		4304	36340	0.00	0.09	0.75
Hat Creek	12,777		9405	6984	0.00	0.74	0.55
Hurley	72,810		18834	47053	0.00	0.26	0.65
Kelly Lake	9,189		1005	244	0.00	0.11	0.03
Koster/Lone Cabin	6			6	0.00	0.00	1.00
Lizzie	43,098		6768		0.00	0.16	0.00
Lost Creek	27,530		2	18	0.00	0.00	0.00
Lower Bonaparte	1,887		1158	134	0.00	0.61	0.07
Pavilion	60,176	15657	30058	26929	0.26	0.50	0.45
Railroad	33,041	4791	1085	17740	0.15	0.03	0.54
Spruce Lake	56,186		30800	56148	0.00	0.55	1.00
Texas Creek	27,894	8900	9348	10243	0.32	0.34	0.37
Upper Big Creek	2,259			2143	0.00	0.00	0.95
Upper Churn	8,864		7441	8864	0.00	0.84	1.00
Upper Lillooet	71,886		55251	19260	0.00	0.77	0.27
Watson Bar	87,175	28923		24650	0.33	0.00	0.28
Yalakom	79,120	6220	49667	47411	0.08	0.63	0.60

Table 3: Landscape units from Table 2 in which 25% or more of the unit was identified as having Saskatoon picking areas.

	Prop. LU
Landscape Unit Name	Saskatoon
Connel Creek	0.41
Watson Bar	0.33
Texas Creek	0.32
Pavilion	0.26
Gates	0.25

Table 4: Landscape units from Table 2 in which 25% or more of the unit was identified as having Soopolallie picking areas.

	Prop. LU
Landscape Unit Name	Soopolallie
Upper Churn	0.84
Upper Lillooet	0.77
Dash	0.74
Hat Creek	0.74
Carpenter Lake North	0.72
Yalakom	0.63
Lower Bonaparte	0.61
Spruce Lake	0.55
Birkenhead	0.54
Pavilion	0.50
Clinton	0.46
Duffy Lake	0.39
Connel Creek	0.37
Gates	0.37
Texas Creek	0.34
French Bar	0.33
Hurley	0.26

Table 5: Landscape units from Table 2 in which 25% or more of the unit was identified as having Huckleberry picking areas.

	Prop LU
Landscape Unit Name	Huckleberry
Upper Churn	1.00
Dash	1.00
Koster/Lone Cabin	1.00
Spruce Lake	1.00
Upper Big Creek	0.95
French Bar	0.85
Gun	0.75
Hurley	0.65
Yalakom	0.60
Hat Creek	0.55
Railroad	0.54
Birkenhead	0.51
Pavilion	0.45
Duffy Lake	0.44
Texas Creek	0.37
Carpenter Lake South	0.29
Watson Bar	0.28
Upper Lillooet	0.27
Connel Creek	0.25