



TRADITIONAL SEAFOODS
OF VANCOUVER ISLAND FIRST NATIONS



BALANCING HEALTH BENEFITS
WITH **POLLUTION RISKS**

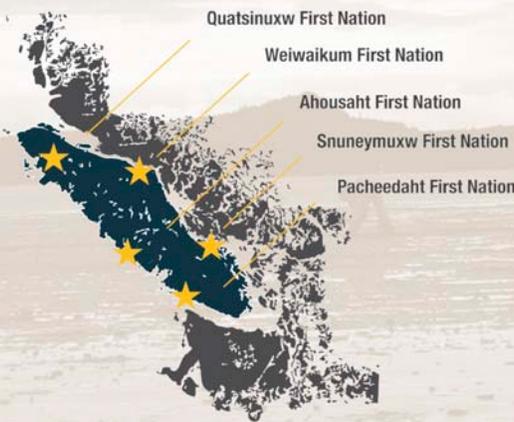


Final Report

*Proceedings of a Workshop at
Malaspina Campus,
Vancouver Island University
and the Celebration Feast at
Snuneymuxw First Nation
April 5, 2008*



BALANCING HEALTH BENEFITS
WITH POLLUTION RISKS



'Marine foods are important for cultural and nutritional reasons. In a perfect world, contaminants would not be present in traditional foods. In order to better manage and protect ocean resources, we must work to understand what contaminants are harmful and where they are coming from.'

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Pêches et Océans
Canada



Health
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Santé
Canada



University
of Victoria

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Snuneymuxw
First Nation



Vancouver Island Region
Wildlife Management Society

THANK YOU!

● To our partners, elders, interns, fishers and community respondents at Snuneymuxw, Quatsino, Ahousaht, Weiwaikum and Pacheedaht ● Loraine Littlefield at Snuneymuxw ● Gary Ardron and the Vancouver Island Region Wildlife Management Society ● Neil Dangerfield ● Nancy Turner ● Clare Aries ● Mark Kiemele ● Grant Murray and the Malaspina Campus of Vancouver Island University ● Zoltan Fabian, Constantine Tikhonov and Richard Lawrence ● Karen Fediuk and Pam Morrison ● Fiona Devereaux, Erin Rowsell, and Kate Kittridge and the Vancouver Island Health Authority ● Health Canada and its National First Nations Environmental Contaminants Programme ● Health Canada's First Nations Diabetes Initiative ● Fisheries and Oceans Canada



This newsletter was printed, with pride, by the Chemainus First Nation communications department. (250) 245-7145

A conversation about seafood and more

Early on a Saturday morning, April 5, 2008, people traveled from five collaborating communities – Ahousaht, Pacheedaht, Quatsino, Snuneymuxw and Weiwaikum – and many other First Nations to join a range of experts for a wide-ranging discussion about seafood, nutrition, and the environment.

The day-long series of presentations, conversations and celebrations capped off a project entitled “Traditional Seafoods of Vancouver Island First Nations: Balancing Health Benefits with Pollution Risks”. It all started two years ago when First Nations people began asking members of the Vancouver Island Regional Wildlife Management Society about what pollutants might be in seafood. Elders were asking the question because they still eat harbour seals, which are high on the food chain and could potentially contain higher levels of contaminants than other seafood.

That initial query – “Is it safe to eat seals?” – led to Health Canada funding a study through its National First Nations Environmental Contaminants Program. After talking with the five communities which joined the project, we formulated three basic research questions: “How much seafood is being eaten? (dietary surveys)” ; “What is the level of contamination? (analysis of seafood samples)” and “Is it safe to eat these seafoods?” (health hazard assessment).

We focussed on four ‘indicator’ species – the harbour seal, Dungeness crab, sockeye salmon and butter clam. Working with each community, we collect samples so that we could analyze them for a two priority pollutants – PCBs and PBDEs. Of course, there is a vast range of compounds that can be found in the ocean around us, but we data from these two chemicals would provide us with good indications about the safety of the seafoods we eat.

This report provides a brief overview of the presentations made during the day at the Malaspina campus of Vancouver Island University. It also takes a look back at the five ‘mini-workshops’ held over the past six months in the five communities around the Island. In addition to participating in the dietary surveys, the communities generously hosted hands-on learning sessions with school children as well as presentations to the community detailing preliminary findings of the project.

After a day in the lecture theatre on April 5, participants made a short journey to the Snuneymuxw community kitchen for a feast featuring traditional seafoods and more. There was much laughter as Derik Starlight entertained 250 feast-goers. And the evening ended, fittingly, in the longhouse as guests listened to drumming and watched dancers perform.

We raise our hands in thanks to the people who helped us achieve such success with this project. Although the outcomes must still be published in scientific journals, much has been accomplished. It is with warmth and fondness that we recall the sparkles in the eyes of children at the beach, learning about and tasting the fruits of the sea. It is with thanks that we remember the Elders and their wisdom. This will continue to be an on-going learning experience for all of us.

*Sincerely,
Researchers Dr Peter Ross and Tom Child*



Gary Ardron

The Vancouver Island Region Wildlife Management Society would like to thank Dr Peter S. Ross at Fisheries and Oceans Canada, the research team, Health Canada, the five partnering First Nations and all participants at the April 5th workshop.

This project has gone a long way in providing the background information needed to answer the original question posed to us by the late Sam Adams of the Ehattesaht First Nation on the safety of harbour seal and sea lion consumption. We look forward to the results of the health risk assessment to be completed by Health Canada over the coming months.
Gary Ardron, VIWMS

On our tables... from the source

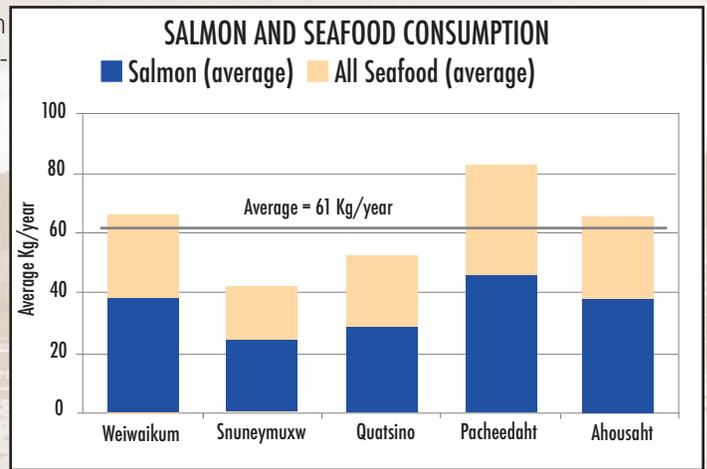
presented by Tom Child

There's an expression around the Salish Sea: "When the tide is out, the table is set". That was certainly proved true over the course of our research project, *Traditional Seafoods of Vancouver Island: Balancing Health Benefits with Pollution Risks*. Tom Child presented the findings of the dietary surveys which showed not only how important seafood is in diets, but how vital the sea is to First Nations people. Two main findings were:

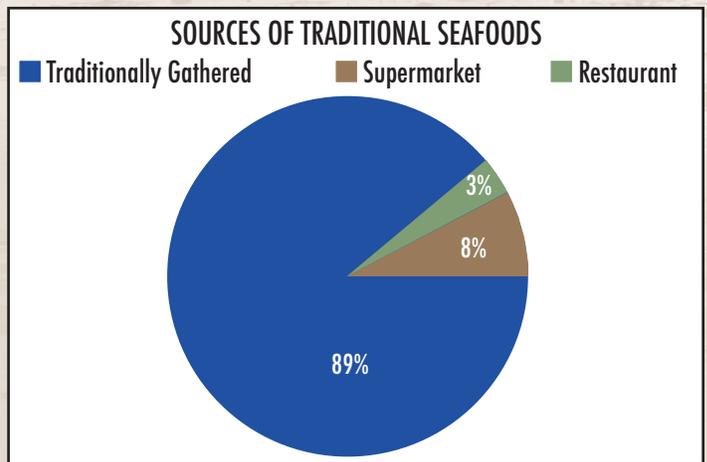
There is very little information on seafood consumption for coastal First Nations in BC

Consumption data forms the basis for risk assessment

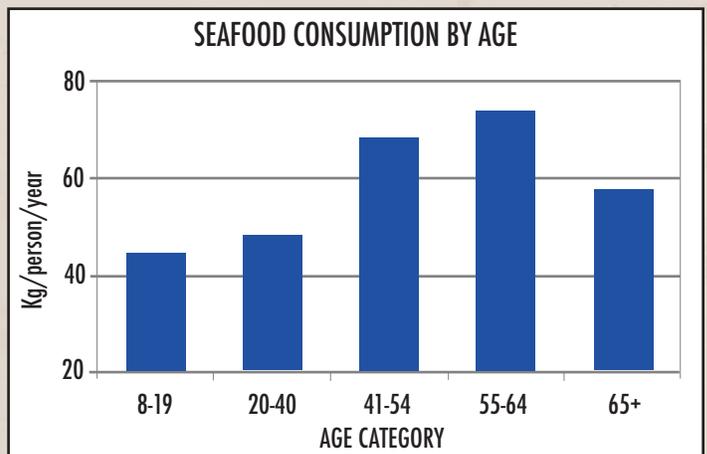
- First Nations people eat 15 times more seafood than the average Canadian; and
- About 90 per cent of that food comes directly from the sea, not from supermarkets or restaurants.



Salmon is number one, but other seafoods make up a significant portion of the diet.



Most seafood comes from traditional sources rather than stores or restaurants.

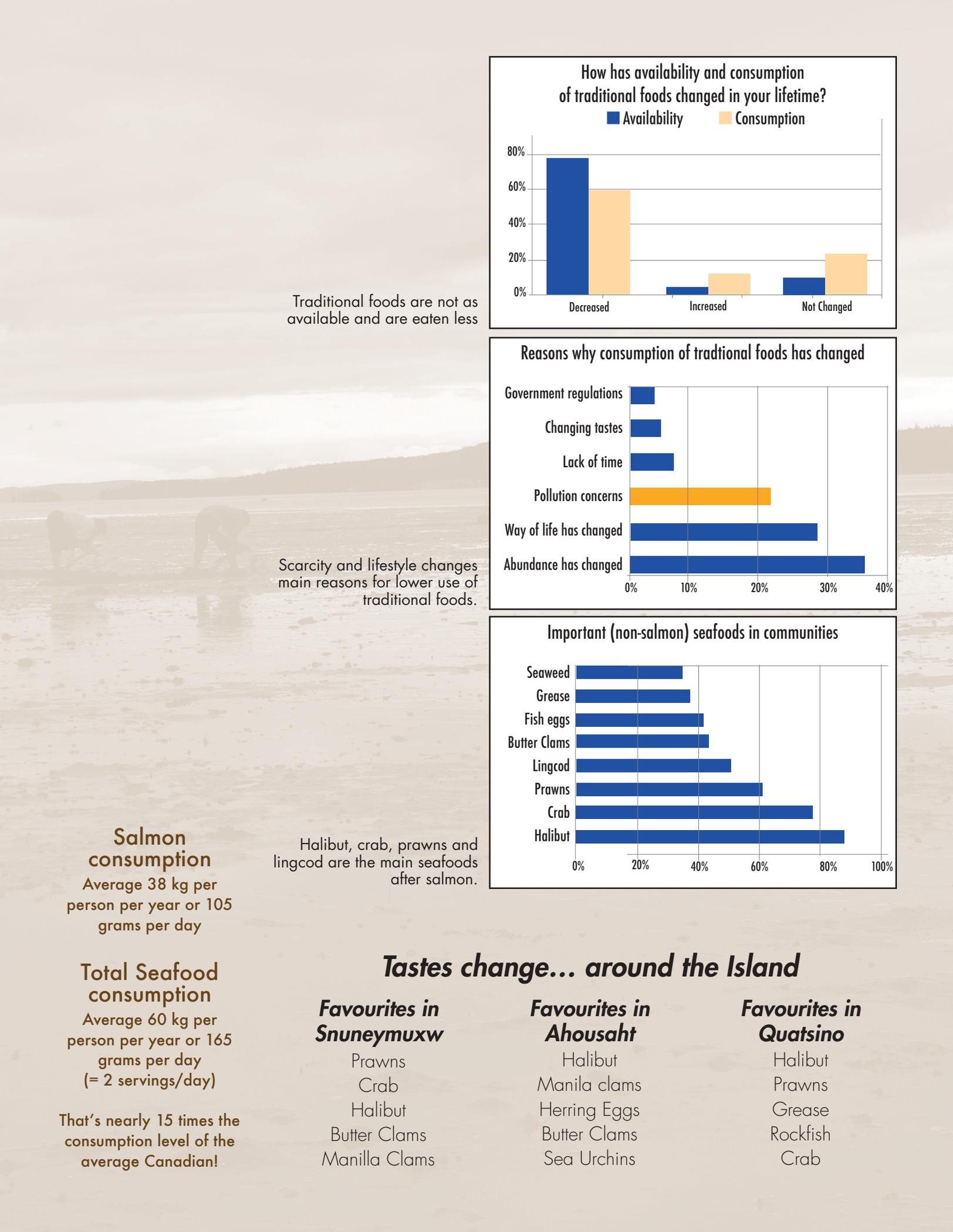


Older people eat much more seafood than do younger people.

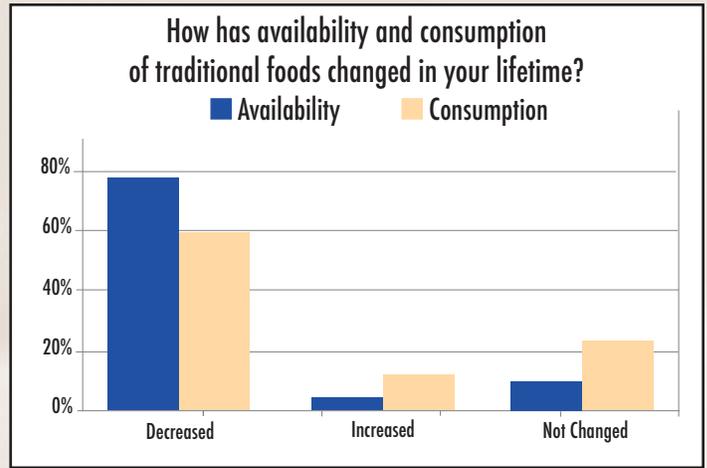


Tom Child is Kwakiutl from the village of Fort Rupert.

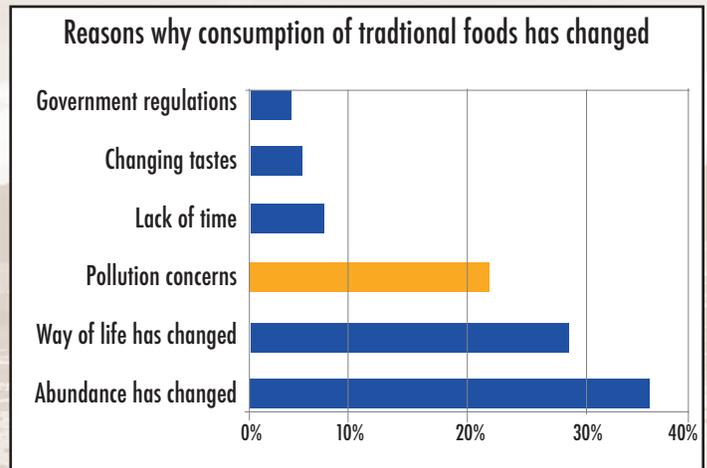
He is a graduate student at the University of Victoria and he is playing a central role in the research project and made a presentation on consumption patterns revealed from the dietary surveys which were conducted in the five First Nations partner communities.



Traditional foods are not as available and are eaten less

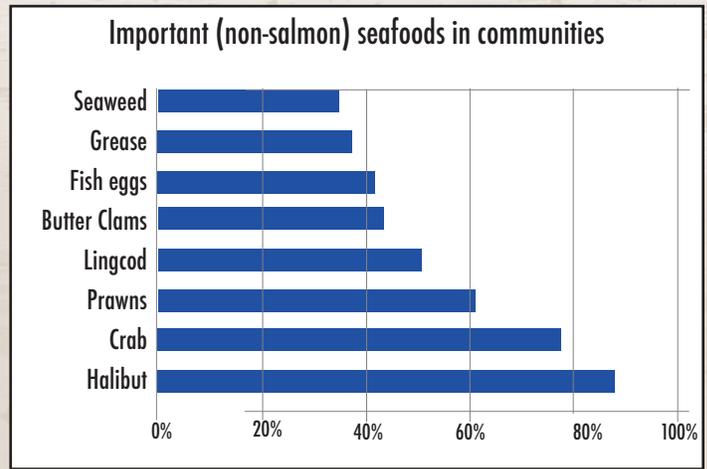


Scarcity and lifestyle changes main reasons for lower use of traditional foods.



Salmon consumption
Average 38 kg per person per year or 105 grams per day

Halibut, crab, prawns and lingcod are the main seafoods after salmon.



Total Seafood consumption
Average 60 kg per person per year or 165 grams per day (= 2 servings/day)

Tastes change... around the Island

That's nearly 15 times the consumption level of the average Canadian!

Favourites in Snuneymuxw

- Prawns
- Crab
- Halibut
- Butter Clams
- Manilla Clams

Favourites in Ahousaht

- Halibut
- Manila clams
- Herring Eggs
- Butter Clams
- Sea Urchins

Favourites in Quatsino

- Halibut
- Prawns
- Grease
- Rockfish
- Crab

Just what's in the seafood we eat?

presented by Dr Peter S Ross

Eight years ago, an article published in the Marine Pollution Bulletin said that: "BC's killer whales are the most PCB-contaminated marine mammals in the world..." (Peter S. Ross and others; MPB Vol 40: 504-515). Why were these whales so contaminated? Are seals and sea lions also contaminated with PCBs? What about fish and shellfish? The work on killer whales was a natural backdrop for this Traditional Seafoods research project.

As the project began, decisions had to be made about which seafood species to study and what contaminants to look for. The reason that harbour seals, sockeye salmon, Dungeness crab and butter clams were chosen was that each one can tell us something unique about the state of the environment.

Each one is different. Some move around a lot, others don't. Some are at the top of the food chain and others closer to the bottom. For example, clams don't move around, but they can filter many hundreds of liters of water every day. Crabs don't migrate, but they're more mobile than clams and feed on other marine animals. They are also a good monitoring species for dioxin pollution around pulp mills.

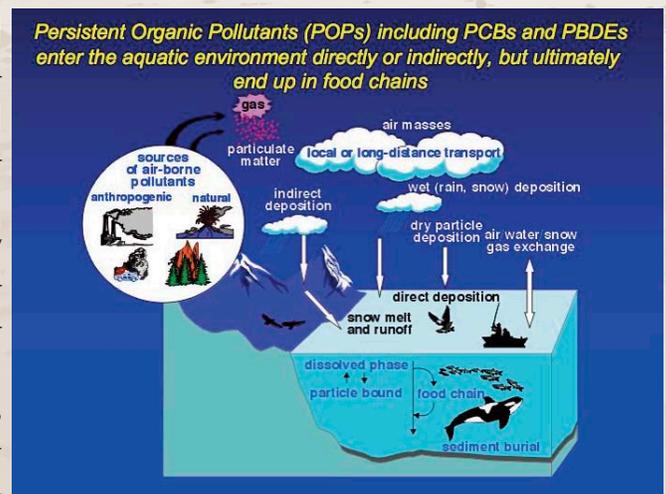
Then there's sockeye which are the real travellers in the ocean. They can give us a global perspective about 'background' pollution. And, at the top of the food chain, are the seals which don't migrate, but move around locally. Because they share many of the same foods with us, they can tell us a lot about what we're eating.



Dr. Peter S. Ross is a research scientist (marine mammal toxicologist) with the Institute of Ocean Sciences (Fisheries and Oceans Canada) located in Sidney, B.C.

He conducts research into environmental contaminants on the health of marine mammals as well as the sources, movement and fate of contaminants in marine food chains with colleagues at universities and government laboratories in Canada and internationally.

As for the contaminant study, we focussed on heavy metals and two man-made chemicals – PCBs (polychlorinated biphenyls) and PBDEs (polybrominated diphenylethers). Heavy metals such as mercury or cadmium can be naturally occurring, but can also be produced from human activity. Data collection on heavy metals is relatively easy to do. As for PCBs and PBDEs, both are considered persistent organic pollutants (POPs). These are organic compounds that don't easily break down in the environment and are also 'bio-accumulative' because they build up in the fat of seafoods.



Even though they have been banned for 30 years, PCBs are high on the list of priority POPs along with such things as DDT and dioxins. They are very persistent and toxic and are still a big problem throughout the world. They were once used as an insulating fluid in electrical equipment. PBDEs look almost identical to PCBs, but

Heavy metal data currently being compiled. Please check our web site at www.snuneymuxw.ca/seafood.htm for updates and other information.

IT'S UP TO YOU AND ME

- ✓ We can make personal choices about things like shopping, the use of household cleaners, recycling and the use of cars and boats
- ✓ We can act as stewards of our local environment by protecting streams and coastal waters
- ✓ We can tell governments and industries about our desire to protect traditional seafoods from contamination by priority pollutants
- ✓ Our government can work internationally to protect the global environment (e.g. Canada's lead role in the Stockholm Convention).

they do break down in the environment and are a little less toxic. The chair you're sitting in right now probably has PBDEs as a flame retardant. In Canada there are no set limits for what levels of PBDEs in the human body is considered to be safe, but there are concerns that the chemical could have harmful effects on both the human health and our environment.

There are an awful lot of pollutants out in our waters and on land (E. coli bacteria, dioxins, etc). We couldn't select all of them for this study, so we chose to look at those chemicals which may have the highest risk. Samples of the four species were gathered from the five communities in the study and were taken them to the laboratory at the Institute of Ocean Sciences where they were tested for levels of the two contaminants and heavy metals.

Banned PCBs are present in all traditional foods, but concentrations vary a great deal. But even the high levels in seals are well below Health Canada's 'safe' guidelines.



mg/kg wet wt

Currently used PBDEs are also present in traditional foods



EAT SHELLFISH SAFELY

In addition to the presence of low levels of certain man-made contaminants in shellfish, there may also be naturally formed bio-toxins related to phytoplankton blooms, especially in summer. Before you harvest and eat oysters, clams, scallops, mussels and cockles, create a shellfish safety checklist.

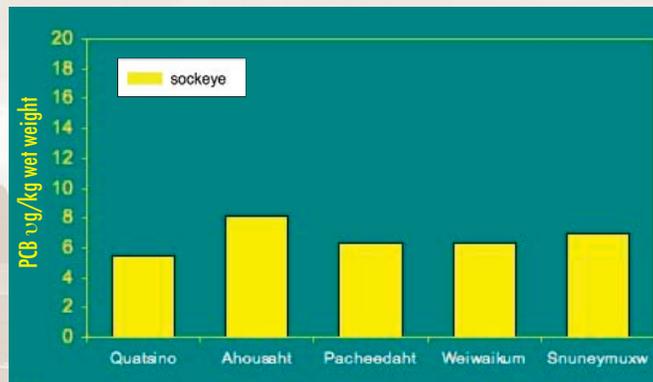
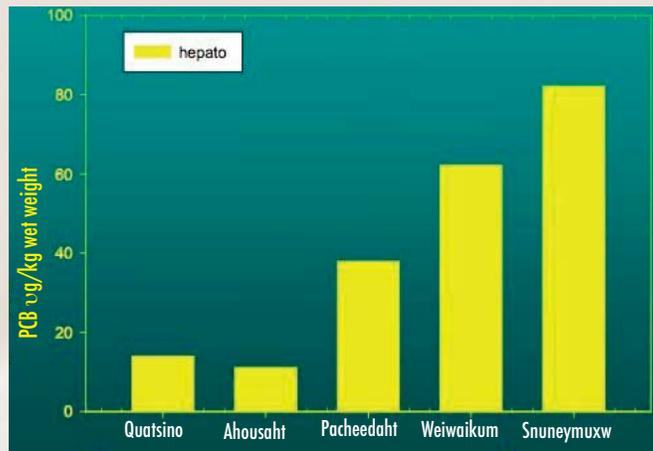
- Find out which areas are open and which species are safe;
- Visit the following website: www.pac.dfo-mpo.gc.ca/recfish/PSP&contamination_e.htm
- Call DFO's 24-hour information toll free telephone line 1-866-431-3474 or call the nearest Fisheries and Oceans office (in your phone directory blue pages)
- Get shellfish from suppliers you trust;
- Refrigerate or freeze shellfish until you're ready to eat them;
- Cooking does not destroy biotoxins; however properly cooking will reduce the risk of food borne illness caused by bacteria or viruses;
- Shellfish can have high levels of biotoxins in any month.

For more information Visit the CFIA web site:
www.inspection.gc.ca/english/fssa/concen/cause/pspe.shtml
or The BC CDC web site:
www.bccdc.org/content.php?item=146

Another way to compare PCBs in our traditional seafoods

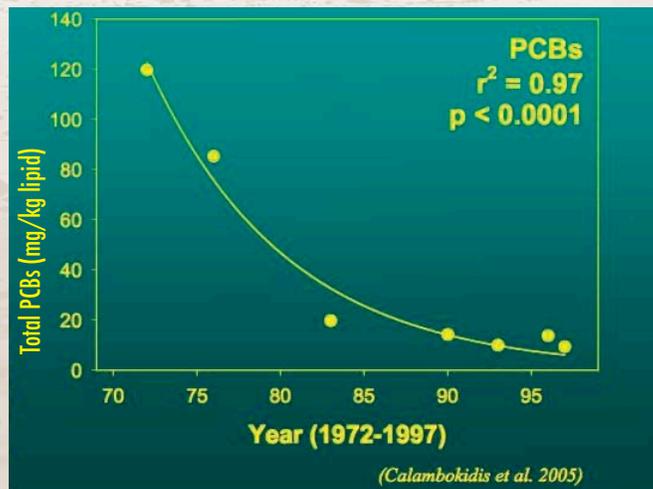
1 lb harbour seal blubber
 = 19 lbs Dungeness crab
 = 130 lbs sockeye salmon
 = 416 lbs Dungeness crab
 = 4,155 lbs of butter clams

PCBs in crab were lowest on the west coast of Vancouver Island



PCBs are uniformly low in sockeye salmon

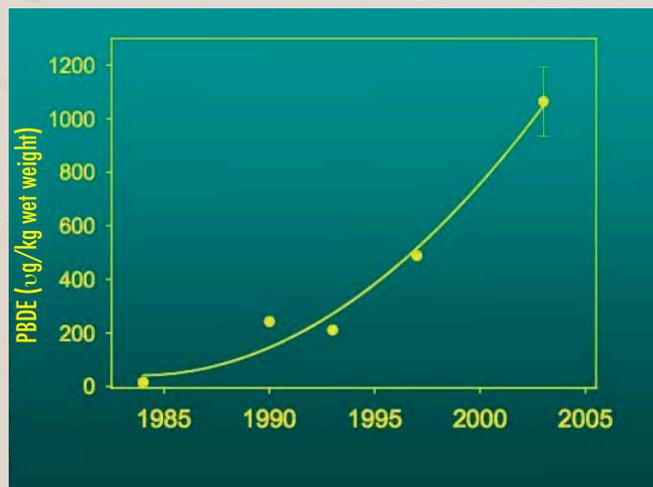
Regulations can help protect traditional seafoods: PCB concentrations declined in harbour seals after they were banned



WHERE ARE WE NOW?

The sky is not falling, but we all have some more work to do. Seals are relatively contaminated, while butter clams and salmon are relatively uncontaminated. We're not quite finished... more work coming on to assess the exposure and risk associated with consumption. This is a story of science, traditional knowledge, and capacity building.

PBDEs (currently in use) and levels in seals and fish are doubling every 3.5 years



The more we learn, the more questions we have

presented by Dr Richard Atleo

The intent of my presentation was threefold:

1) To present an indigenous perspective in terms of the requirements to develop protocols between life forms demanded by the nature of a polarized reality; hence my story of Bear in conflict with a Nuu-chah-nulth fisher. The phrase "life forms" is inclusive of all reality and consequently, by definition, the development of protocols is intended to achieve balance and harmony such that sustainability can be maintained.

2) To remind us all that we do not know very much; hence my example of Einstein who imagined himself, at the height of his remarkable achievements, to be like a little boy on an immense beach faced with an ocean of mystery.

What Einstein knew about knowledge is the same perception held by our most advanced indigenous wisdom keepers. I think it most alarming that Western society at large (perhaps excluding a few thoughtful scientists), appear to consider the scientific enterprise as beyond question, especially when politicians and social commentators defend their various positions with a stereotypical reference to what "science" says or what "scientists" say.

The history of science is strewn with multiple and massive errors, some of which has caused much human suffering and yet in some bizarre way these errors are considered part of a heroic search for truth. To me, it appears very immature...to boast only about what has been successful and ignore the greater part that has not been successful.

3) Finally, I think that the scientific enterprise requires a broader approach than its classical reductionist and empirical framework to include what some consider to be a more significant aspect of human existence – that part that has been called many names, the numinous, the metaphysical, the spiritual – the experiential evidence for which is affirmed by at least 200,000,000 indigenous peoples worldwide.

In English, this experience is known as 'vision quest'. Theoretically, the vision quest as a method of knowledge acquisition is not much different in principle from experiments in physics that aim to discover the properties of invisible particles... except that there can only be a very few physicists to confirm any findings.

Whereas entire communities of indigenous peoples can practice the vision quest and the findings of these quests are then subject to community verification.



Dr. E.R. Atleo (Umeek) is research liaison at the University of Manitoba and associate adjunct professor at the University of Victoria.

He is a hereditary chief among the Nuu-chah-nulth people, and was born into the house of his great-grandfather who was the last of the Ahousaht whalers (Sosnowiec).

He has taught at the University of B.C., Simon Fraser University and Vancouver Island University (formerly Malaspina) and also served as co-chair of the scientific panel studying the sustainable forestry practices in Clayoquot Sound (Sosnowiec).

Lessons from the Clam Beds

presented by *Briony Penn*

We Europeans, ('hungry people' or Hwinitum), have finally realized what native communities have known for a long time – a 100 mile diet is good for you – and not a moment too soon.

From a holistic health perspective there is nothing better that we can do than eat local seafood. Clams have exceptionally high amounts of calcium and iron. There is more iron and calcium in a cup of clams than most other foodstuffs.

But then we worry about the risks of contaminants in seafood. Contaminants in seafood are just one part of the health issue and one that is actually solvable with a lot of effort.

The seafood itself isn't the only health benefit from eating local. It is also about the relationships we form when we decide to eat locally and with heart. Those relationships are what make us happy and healthy as much as the food. With those relationships we also feel strong enough to change our behaviour, bring the contaminant issues to the attention of our politicians.

So how do we restore those healthy relationships formed when we collectively get food together? When our food gathering places are contaminated or inaccessible, where do we go to perform the food gathering rituals that cement family or social relationships with the earth?

Varnish clam – The varnish clams are everywhere. They are distinctive because they look like someone varnished the shells. They came from Korea in ship's ballast and started appearing in the '80s. They occupy the shallowest niche of the clam beds right at the top. They are not bad to eat although you don't get much meat.

Manila Littleneck – The manila littlenecks started arriving on the coast at around the time my great great grandfather was illegally colonizing Salt Spring Island and the Japanese oyster was being cultivated which displaced the Olympia

oyster. The introduced littleneck has sort of adapted and not completely taken over the Pacific little neck and it is equally as good to eat.

Pacific Little neck – The Pacific littleneck is the clam that sticks its littleneck out. Sticking your neck out is about risk and risk is a misunderstood concept. Today there is a lot of talk about risk management. It is how governments have talked about chemicals and sewage contamination. Managing the risk is less effective than taking the precautionary principle.

Butter clam – Butter clams have traditionally been the biggest delicacy of the coast. The lesson from this is that food is the lens through which we engage in relationships not only with one another but also the natural world. It could be the only means by which we ever authentically interact with our environment.

Cockles – Cockles have always been integral in coastal cultures. The moral of this bivalve is that there is a similar cross-cultural appreciation of cockles and we need to build on these common cultural values where we find them.

Mussels – Communal feeders. We need to have more feasts together.

Olympia Oysters – They are very good at restoring their place. Restoration of habitat is restorative to culture as well as ecosystems. Even if we aren't eating them, we are getting out into the land and feeling all the benefits of doing something positive.

Horse Clam – Horse clams are the ones that love spraying you in the crotch when you walk along the shoreline at low tide. I think they have a good sense of humour. They are kind of hard shelled and don't taste that good, sort of like politicians.

Pacific Geoduck clams – Geoducks are the elders of the clam bed. They can live up to 160 + years. They know a thing or two. They stay put, barnacles even grow on their siphons. They are less exposed in the subtidal area but everyone is after them. They have siphoned garbage out of the water for up to 168 years. That is a lot of bio-accumulation. There aren't many of them left.

Think like a geoduck, get wise and stay put.



Dr Briony Penn is a Canadian environmental activist, adjunct professor of environmental studies at the University of Victoria. She is the Liberal Party of Canada's current candidate for Saanich–Gulf Islands.

She has been giving natural/cultural history and stewardship workshops and lectures in communities since 1991. She has also been a naturalist on the BC coast for ecotour and educational operators since 1980.

Laurie Montour is a facilitator in the field of First Nations health

She is an ecosystem biologist. With a speciality is in Indigenous resource management and environmental protection.



Dr Nancy Turner presented a talk entitled "The Old Food is the New Food: Renewing Indigenous Food For Health and Well-being".

She spoke about the many connections between land and the sea, in particular the salmon whose DNA can be found in the branches of trees, evidence of bears taking carcasses into the forest where they act as vital nutrients for the ecosystem.

She is an ethnobotanist and professor in the School of Environmental Studies at the University of Victoria and has authored or co-authored over 15 books and many other publications about ethnobotany, traditional ecological knowledge and sustainable resource use in Canada and B.C.

Seafood's benefits not just in your belly

presented by Laurie Montour

Besides being great for our diet (and our bellies), seafood provides us with so many other benefits.

It brings our families together, whether at the supper table or a community feast. And by doing so it helps instill culture and language into our children at a young age.

Another big benefit is that harvesting seafood keeps us physically and mentally active. We get out in the fresh air and exercise. Think of all those deep knee bends that are done while picking clams!

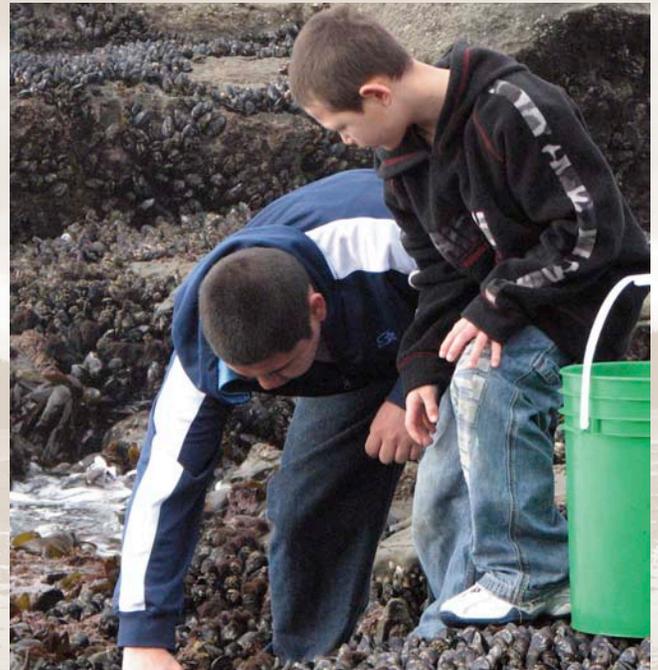
The practice of harvesting and fishing also provides us, especially our children, with many education benefits, such as teaching the value of the biological diversity that surrounds us.

But, back to our bellies...

Seafood not only tastes good, but it provides our bodies with so many benefits. Just one example are the Omega-3 fats that seafood provides. Those fats help to lower the incidence of heart disease and stroke, reduces the risk of sudden death as well as lowering the risk of heart attack for people who have diabetes.

Some of the other health benefits of Omega-3 fats include:

- ✓ Anti-inflammatory effect, which means less joint pain and morning stiffness;
- ✓ A reduced incidence of premature delivery;
- ✓ Help for people with bone and joint diseases;
- ✓ Helps lower the risk of dementia, including Alzheimer's disease;
- ✓ Contributes to healthy brain function; and
- ✓ Can act as an anti-depressant.

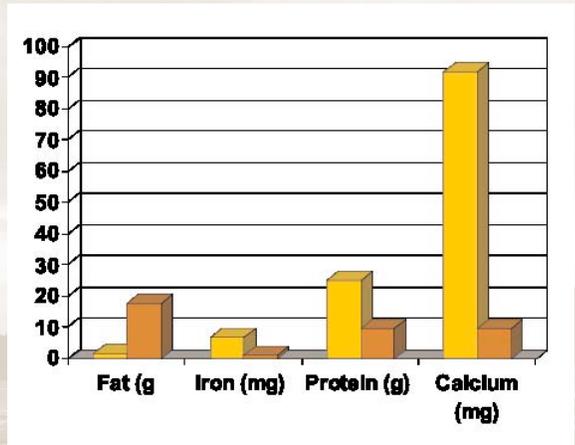


Food... past, present and future

presented by Karen Fediuk

Before the grocery store, coastal peoples got all of their food from the ocean and land. People ate 1-1.5 kg daily of land and marine foods. In terms of daily energy, 30-40% came from meat, fish, beach foods, 35% of calories came from grease and fat in food and 25% of calories came from plant foods. Over 100 species of seafoods were there to be harvested.

Today, although few studies have been done in First Nation communities, one study of Dene and Yukon children showed that 32% of the children were above the 85th percentile of the body mass index for their ages. Intakes of vitamins A, E, magnesium, calcium, dietary fibre, omega-6 fatty acids, and omega-3 fatty acids were below recommended levels while 30% of children obtain more than 25% of their energy from sugar.



A good illustration of how traditional foods compare to modern ones is shown by this graph of the percentage of nutrients in cooked clams (yellow) and bologna (orange).

But there are currently a number of barriers to use of traditional foods, particularly seafood. There is decreased access to them, licenses are required and there are limited openings.

Harvesting quotas are low; only 3-5 fish/person/year. There are reduced areas to harvest (foreshore leases, waterfront properties, new wharfs/docks, increased Crown foreshore leased to shellfish aquaculture industry, etc) plus the fact that there are no regular water quality sampling means areas are closed for longer than needed. Add to that the fact that there are no effective regulations or enforcement that deter pollution (septic tanks, sewage).

The First Nations Food, Nutrition and Environment Study hopes to fill a gap in knowledge at the national and regional level on nutritional composition and the environmental safety of foods consumed by First Nations peoples living on reserve lands south of 60th Parallel across Canada. It will address the environmental concerns among First Nations living in communities and will develop plans to protect the traditional food systems and to promote well being and healthy lifestyles.

Project Plan 2007-2008 – This is a planning year for method development and community consultation; Community participation will be decided in regional consultation meetings; Research agreements will be signed between researchers and participating communities.



Karen Fediuk is a dietician. For the past 10 years, she has been working on aboriginal health and traditional food research projects. Her work is about the value of traditional food for health and food security. She has been involved in a national survey on food, nutrition and the safety of food and water in First Nation communities.

Workshop Reflections

Chief Tom Nelson Quatsino First Nation

The Traditional Seafoods Project Workshop was really an eye opener for all of us that attended.

Tom Child's report was excellent and well put together. All the other presenters were all very interesting and the workshop was very informative.

I am glad that I attended this workshop as it will help me to work with my people so that we can manage our resources in our traditional territories.

Dr Richard Atleo

Impressions of Workshop – I thought that the theme and presentations were of significant interest to those in attendance. The level of interaction between presenters and audience was both dynamic and high.

Dr Nancy Turner

It was a wonderful day, truly.

I felt that everyone was learning and sharing in a respectful and open way. It was just the way a workshop should be, in my view.

Gary Ardron Facilitator Vancouver Island Wildlife Management Society

The April 5th workshop was a resounding success.

I believe that this workshop accomplished its goal of reaching out to our target audience and presenting initial study results and creating further interest and discussion on the importance of traditional foods in First Nation diets and overriding concerns with the decreasing consumption of these foods due to concerns over potential contamination.

There appeared to be a strong consensus that more needs to be done to follow-up this study in a number of areas including:

- *additional research on contamination levels and potential health risks in other traditional foods;*
- *the need to address the source of contamination problems;*
- *the need to educate our youth on the importance and health benefits of traditional foods;*
- *and the need to unite as First Nations to discuss options to address these issues.*

Briony Penn

Throughout the day, it became clear that the regulation of contaminants through policy and law supported by good science is a relatively simple part of the puzzle of protecting traditional seafood.

The larger questions of protecting habitat and access, encouraging the next generation, cultural survival and all the other nested issues of food security are far more difficult sociological problems to tackle.

Traditional foods are finite resources and the critical question of ownership and management of the clam beds, salmon runs or seaweed meadows is central to the debate.

The key finding for me was the slight curl up at the end of the descending line on the graph that showed consumption of traditional seafoods in aboriginal diets over the last century. There seems to be a small reversal in trend, coinciding with the raised awareness in both native and white populations of the health benefits of eating a local diet—the "new" old diet.

Are we seeing a renaissance in traditional seafoods prompted by the terrible health issues that have surfaced?

The questions that were raised for me were:

Can the protection of traditional foods play a role in a greater national food security policy? We are looking at integrated policy on saving the family farm, but what about the traditional clam beds and the seaweed gardens?

As the wider population starts looking at the health effects of local food, what pressures will that put further on these limited resources?

Key to all the discussions was the critical importance of the process of gathering these foods in promoting cultural and family ties and healthy activities.

I see the restoration of these habitats as almost the next best thing to harvesting for communities to engage in and what better way for cross cultural exchanges by bringing in the wider community.

Restoration to me is the key avenue by which we promote better access and awareness of the nested issues of food security and cultural survival and it gets us back outside – together.

Karen Fediuk

This was an enjoyable experience.

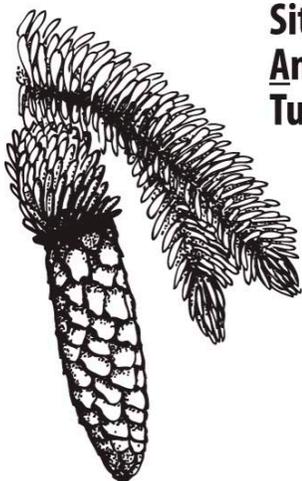
I thought that the event was well organized, well attended and generated a lot of discussion and interest among participants. Hence, it seemed like a great success.

The day long event was stimulating and the evening meal and entertainment were fantastic.

Scenes from the workshops and feasts

Here are some of the many photographs taken during the final workshop and feast as well as others from the events in the five participating communities.





Sitka Spruce Tea
Ani'was (Gut'sala)
Tuuhmapt (Nuu-chah-nulth)

Harvest the young branch tips in spring and summer, pour boiling water over them. Sweeten with licorice fern "roots" to taste; add rosehips or salal berries for colour. Strain and drink.

All workshop participants received one of four cups which were printed with information and a recipe about teas made from traditional plants.

The poster produced specially for the April 5 workshop

Kids were seafood specialists at community workshops

In the five months before the final workshop, the Traditional Seafoods team visited the five First Nation partner communities involved in the project survey. School children took part in making masks of seal, salmon, crab and clam as well as other activities and learned important lessons about seafood and the environment. Community members also attended presentations made by Tom Child about consumption patterns and other preliminary findings from the work. And, of course, a seafood feast was on the menu. Below are the front covers of the newsletters produced for each community who generously hosted us.



Be sure to visit our web site regularly over the coming months at

www.snuneymuxw.ca/seafood.htm

for project updates and other information about

Traditional Seafoods of Vancouver Island First Nations: Balancing Health Benefits with Pollution Risks