



Sea of concern

Does local seafood pose a health risk for Vancouver Island's First Nations people?

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EDGEwise

The mainstays of the traditional seafood diet of Vancouver Island's coastal First Nations are salmon, halibut, rockfish, seals, ooligan, crab, prawns, mussels, clams and cockles. Delicacies include seaweed, sea urchins, chitons and barnacles.

About 90 percent of seafood consumed by First Nations communities is gathered locally, rather than purchased at supermarkets or restaurants. Older generations consume more seafood than younger generations.

The study, titled "Traditional Seafoods of Vancouver Island First Nations: Balancing Health Benefits with Pollution Risks," is funded primarily by the National First Nations Environmental Contaminants Program, a partnership between Health Canada and the Assembly of First Nations. For more information on the project, visit www.snuneymuxw.ca/seafood.htm.

UVic researchers were awarded more than \$71 million in external research grants and contracts in 2006/07, doubling the research support of the previous five-year period.


TIMES COLONIST
Supporting education in our community

by Jessica Gillies

When Tom Child was growing up in the Kwakiutl community of T'saxis on north-eastern Vancouver Island, gathering traditional foods from the ocean was as natural as the rhythm of the seasons.

It still is. But now there are concerns about the quality of the food First Nations communities are harvesting and whether the health risks posed by environmental contaminants outweigh the known benefits of a traditional seafood diet.

"All the origin stories and legends that exist for First Nations on the coast involve the natural world, so our culture itself is dependent on a healthy environment," says Child, a graduate student in the University of Victoria's School of Environmental Studies.

"Our elders are worried about the rapid changes to their local environment and important food-gathering sites," says Child. "They want to know what pollution levels are out there, and they want to understand the risks these bring to their grandchildren."

For his master's degree, Child is working with Dr. Peter Ross, a wildlife toxicologist at the Institute of Ocean Sciences in Sidney, on the first-ever major

study of the health benefits and risks of the seafood diet of BC's coastal First Nations.

The study is a partnership among five First Nations communities, the Vancouver Island Region Wildlife Management Society, Health Canada, Fisheries and Oceans Canada, and UVic.

The study focuses on four groups of contaminants—flame retardants (PBDEs), polychlorinated biphenyls (PCBs), dioxins and furans, and heavy metals. All of these chemicals bio-accumulate in the food chain and can cause developmental, reproductive, immune and nervous system problems.

The team selected four traditional food species to study—harbour seals, sockeye salmon, Dungeness crab and butter clams.

To find out how important seafood is in contemporary First Nations diets, Child organized surveys of more than 300 people in the five communities. The results show that a typical survey respondent eats as much seafood in one month as the average Canadian eats in an entire year.

"It shows you how important this food source is," says Child. "Coastal people aren't just eating salmon; they're taking advantage of a whole host of traditional resources, such as barnacles, chitons, seaweed, herring roe, halibut, prawns and more."

To determine contaminant levels, Child and the study team tested food fishery salmon, and traditional shellfish harvesting and crabbing sites in each community. To test seals, they used a non-lethal method of collecting seal pups for blubber and blood samples.

Preliminary results suggest that PCB levels are low in all the species they studied except for harbour seals, which are high up on the food chain and live longer than fish, crabs or clams. PCBs accumulate over time in the seals' fatty tissues.

Once contaminant analysis is complete, the next step is to determine the health risks of consuming traditional foods.

"We're working on a risk assessment," says Child. "But assessments don't take into account the cultural importance of traditional foods. You have to weigh everything. Also, there are pollutants in all of our modern foods. They're not isolated to traditional seafoods."

In the end, it may turn out that the health and cultural benefits of eating traditional seafoods outweigh any potential harm. "We want to raise awareness," says Child, "but we don't want to create extra fear that will cause people to stop eating their traditional foods."

Child



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