

Traditional Knowledge & Contaminants Project

Alaska Native Science Commission
&

Institute of Social and Economic Research, UAA

Alaska Traditional Knowledge and Native Foods Database

www.nativeknowledge.org

Project Goals

- **To help Alaska Native communities identify and address their concerns about contaminants, human health and environmental changes.**



Project Objectives



- ① Using traditional methods and practices to discuss concerns and solutions
- ① Provide grant opportunities for Alaska Native communities to take action and devise their own solutions
- ① Develop a common research agenda based on local and research-based knowledge and concerns
- ① Develop a database designed to promote interaction and documentation of knowledge:
www.nativeknowledge.org

Regional Meetings Across Alaska



- ❧ NW Alaska Regional Meeting:
Nome
- ❧ Southeast Regional Meeting:
Sitka
- ❧ Interior Regional Meeting:
Fairbanks
- ❧ Y-K Delta Regional Meeting:
Bethel
- ❧ Western Regional Meeting:
Cordova
- ❧ SC Regional Meeting:
Anchorage
- ❧ Arctic Regional Meeting:
Barrow

Overview of Alaska Native Concerns

- ① Global Warming
- ① Abnormalities in Subsistence Foods
- ① Human Health
- ① Impact of Commercial and Sports Fishing
- ① Local Sources of Contaminants
- ① Outside Sources of Contaminants
- ① Changes in the Ecosystem
- ① Perpetuation of Culture



Concerns About Global Warming



- 🌍 Ice Conditions are changing - the thickness of sea ice has decreased (NW,AR)
- 🌍 Warmer ocean temperatures appear to be bringing tuna, mackerel, barracuda, sunfish, giant turtles and white sharks to the region (SE)
- 🌍 Weather is changing: warmer and wetter seasons (NW,AR, INT)
- 🌍 Lakes and normally wet areas are drying up (NW, INT)

In their own words.....

☛ *There are a lot of things happening. The weather has gotten warmer. The taste of the plants has changed. The fur is coming off the seals like they are molting but it is not molting time. We're wondering if Chernobyl is responsible. The people from my village were wondering about the Russian military dumping toxic wastes and it coming over to our side. I'm glad to be here and to understand that we aren't the only ones to experience these changes.*

» *--Eric Iyapana, Little Diomedede Island*

Concerns about Abnormalities in Subsistence Foods

- ❧ Abnormalities in animals and fish (e.g., wormy whitefish and lesions on salmon, and Whirling disease)
- ❧ Moose meat tastes different and there are water bags in their lungs
- ❧ Muskrats have spots on their liver and lungs
- ❧ Caribou have runny bone marrow



Concerns About Human Health

- ☛ Residents are alarmed by high rates of cancer and perceive there to be a relationship between high cancer rates and local military sites
- ☛ People's diets are increasingly including store bought foods, pop and improperly stored canned and frozen foods
- ☛ More people are dying from stomach cancer, ulcers and other cancers



In their own words.....

❧ *People on the island are very concerned about the animals we eat now. They think there might be something wrong because they are getting very skinny. A couple of years ago there was a lot of dead birds all over the beach. I wonder why this is happening? The elders said that there never used be cancer but now they are getting cancer. They think it may be from the Northeast Cape site.*

» **--Herman Toolie,
Savoonga, St.
Lawrence Island**



Concerns about the Impact of Commercial Fishing and Sports Fishing

- ☞ Increase in sports fishing resulting in increased waste in river and destruction of habitat
- ☞ Fish are being destroyed – too many people touching them, measuring them and tearing up their mouths
- ☞ Commercial fishing pressure on herring and habitat
- ☞ Need for marine buffer zones



Alex Nick - Bethel, Alaska



- ☛ *There are growing amounts of trash in our rivers and lakes that are coming from hunters and campers. When the trash is beaten by the strong wind against hard objects, it slowly grinds into small particles. Then the animals and the birds feed on these particles when they eat from the surface of the water and consume all the harmful materials such as insulation, glass, plastics, paint, rubber, and anything else that is not good for living creatures.*

Concerns about Outside Impact on Subsistence Foods, Culture and Environment

- ☛ People are concerned about Russian sources of contaminants
- ☛ Tourists are uneducated about the environment and local customs
- ☛ Trans-boundary pollution from Russia & Europe
- ☛ Ballast water from barges that introduce foreign organisms, species and pollutants



Richard Dalton Sr. Hoonah, Alaska



- ❧ *There used to be a lot of herring but in the last 10 years they have started to disappear. It took us a long time to understand what was happening. The foreigners keep on coming back and talking money, money, money. How do we cover the damages done by their sailors? They're taking everything we got. The foreigners take what they want from us and haul it across the ocean.*

Concerns about Changes in the Eco-System

- ☞ Loss of old growth forest habitat
- ☞ Increase in the number of otter, beaver, bear and wolves
- ☞ Decrease in edible plants
- ☞ Decline in herring spawning areas and a shift to earlier spawning (SE)
- ☞ Decrease in availability of medicinal herbs and plants
- ☞ Decline in number and size of fish



Concerns about Local Sources of Contaminants

- ❧ Concern about sources of pollutants including mines, military sites, chemicals used for dust control, vehicle oil leaks, fire retardants and acid rain
- ❧ Local sources of contaminants ranging from fuel tanks, asbestos, lead based paint, and pulp mills
- ❧ Mercury from mining camps in rivers



John Starr - Tanana, Alaska



- ☛ *I saw some dead fish in Fish Lake. You know when you see a dead fish in a river you know something is wrong. Like I was saying, the people have been mining that area since I can remember. What have they been putting into that lake? It makes you wonder. The reason a person wants answers to these kinds of questions is because you are concerned about your land and the next generation.*

Concern about the Perpetuation of Culture



- ❧ Loss of spiritual connection and traditional training relating to the environment
- ❧ There has been a loss of traditional medicine people and an increased use of the clinic
- ❧ There is a need to return to using traditional medicines and to draw on healthier lifestyle practices
- ❧ Our youth need to be taught to be caretakers of the ecosystem
- ❧ Changes in traditional diet and lifestyle
- ❧ Failure to follow traditional restrictions

Catherine Attla - Huslia, Alaska



- ☛ *I'm still learning, mostly from Natives. I'm 72 now. I learned a lot from my grandparents. Growing up I lived the really Indian way - no school, no church, no post office. I used to think that I didn't have any education because I thought it took going to school to get education. But now I realize that we do get education from our grandparents. This is my knowledge.*