Listening & Learning

Alaska Native Science Commission Newsletter

Naalaktuaqtuni Ilitchiruni-Lu:

Listening & Learning

Volume IV, Issue 2 **Winter 2003**

Inside this issue:

Why Worldview?

By Angayuqaq (Oscar Kawagley)

As an educator and a Native person, I have been asked by many why worldview is so important. Part of my answer lies with the star navigation of our Alaskan Native people which tells them the direction to their destination, kind of weather, what clothing to take and mode of transportation. These are of the made world of the Native person, the knowledge and technology. All of these understandings and rules for life are based upon the special lenses that were ground for you by the ancestors' values and traditions. The worldview is then the superstructure or underpinnings of culture. The worldview is gained through our heritage, which are the stories of us, and by the role modeling of the Native people. This is the unseen part of us, the culture is that which our ancestors and Native people have made and that we can experience and see, e.g., singing-dancing-drumming, harpoons, sleds, houses, traps, reading weather and explaining how we came to be. All these things that are made are tailored by our unseen world of how we are to live in harmony with Nature. The worldview is the foundation of our constructed world. The made-world has to adhere to the concepts of how we are to live and interact with place. Some of these rules may be to cultivate sustainability with the seventh generation always in mind, continue biodiversity, things made must be biodegradable, disturb place as little as possible, be humble, patient and cooperative. The few cited are values that many of our people have forgot-

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ANSC Mini-grant Program

Late this spring, the Alaska Native Science Commission initiated the EPA funded Contaminants Mini-grant Program and contracted with Larry Merculieff to serve as the programs science advisor, and Jack Kruse, University of Alaska professor emeritus as the program advisor to work with the selected tribes.

The primary purpose of the Alaska Contaminants Mini-grant Program was to collect and analyze traditional foods for contaminants. Through a careful selection process, the tribal grants committee selected ten applicants from eastern, western and northern Alaska. Once the selected tribes were notified of their mini-grant awards, the science advisor worked with the local coordinators of the tribes to begin the implementation process. The process involves working with the tribes to identify what species of plants, animals, birds or fish

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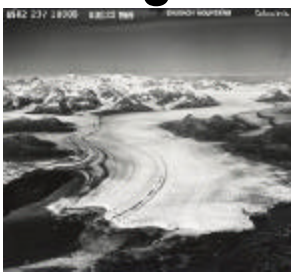
Alaska's Glaciers and Global Change

By W.D. Harrison, ,Geophysical Institute, UAF son@gi.alaska.edu

To those possessing traditional knowledge about glaciers, it should come as no surprise that they are sensitive to climate. Depending upon a glacier's shape and elevation, a sustained one degree change in temperature will cause major changes or even disappearance. Glaciers are thus good indicators of climate, but we have to recognize that in addition to temperature, winter snowfall is also important.

During the past decade here in Alaska-Yukon, the elevations of the surfaces of 100 glaciers have been measured by Keith Echelmeyer and colleagues at UAF. A light aircraft with an accurate laser altimeter was used. Comparison with the elevations on existing maps, most of which were made in the 1950's, indicates an average rate of thinning from the 1950's until the early 1990's of about half a meter (1.5 feet) per year, and about double that since then. One of our colleagues points out that this ice melt represents enough water to cover all Alaska to a depth of about 7 feet, or better still, Texas to 15 feet. This is more than the loss of the Greenland Ice Sheet, and is a significant contribution to rising sea level.



But what about glaciers like Hubbard (a large glacier flowing into tidewater near Yakutat) which has been advancing (at least on the average) for 100 years or more? It turns out that the length of Hubbard and its tidewater cousins depends not only upon climate, but upon mechanical factors that determine how fast ice bergs break off and float away. There are also a few hundred "surge" type glaciers like Variegated (also near Yakutat) which make spectacular advances every few decades when collapse of their internal plumbing systems causes water to be trapped inside. But only a few hundred out of thousands of our glaciers are mavericks like these, and accounting for their eccentricities makes the study of glacier change more interesting for glaciologists.

With few exceptions, mountain glaciers are shrinking or vanishing not only here but throughout the world. This is just one more manifestation of global change.

Why Worldview?

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ten. The modern technomechanistive mindset does not live by these parameters for life. We, as a Native people, must share these life-giving values especially with researchers. We must continue to have our voices heard. We live on Mother Earth but have become viruses with our demands for growth, development and excessive consumption of resources and energy. Our natural resources are finite. Technology, in spite of their vaunted tools for bioengineering, cannot replace the natural resources that are depleted or become extinct. The time for us to work together is now, not in the future. We live and experience the now and only now. Through our concerted efforts, we can change the world for the better. Piurci!

ANSC Mini-Grant Program

(continued from page 1)

are their priority species of concern, having local people collect the samples, having the samples analyzed for contaminants at specialized labs, and assisting the tribes in interpreting the results.

Samples were analyzed at the National Oceanic and Atmospheric Administration's lab in Seattle and the Center for Indigenous Peoples Nutrition and Environment (CINE) lab in Montreal. The labs focus on assessing the levels of contaminants in traditional foods, including PCB's, heavy metals (lead, mercury, cadmium), radionuclides and a number of persistent organic pollutants (POPs) such as pesticides.

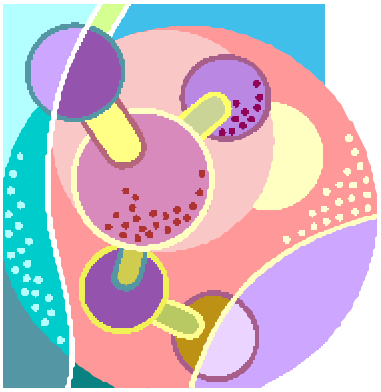
Since this program is not intended to be a comprehensive assessment of contaminants in traditional foods, the information provided by the labs will be used by the tribes to determine whether or not further studies or local actions are needed. The Alaska Native Science Commission will use the experience gathered in this program to guide similar future initiatives.

Multi-generation health risks of persistent organic pollution (POP's) in the far north

By Anna Godduhn & Lawrence K. Duffy, University of Alaska Fairbanks

Abstract

Precautionary regulation of persistent, toxic substances is controversial because of irresolvable uncertainties in ecotoxicology, especially regarding people who eat wild food. Persistent organic pollutants (POPs) have been shown to interfere with hormone function and genetic regulation. In animal studies, myriad dysfunctions can be induced by low-dose POPs exposure during development (manifested later in life). The ubiquity of POPs in biological tissue makes all organisms subject to developmental exposure. To curtail bioaccumulation and biomagnification, the United Nations has created the Stockholm Convention, which targets 12 chemicals for virtual elimination. Using the precautionary approach, the treaty also enables the listing of new targets as threats as they are recognized. The "dirty dozen" are well-documented developmental toxics and other POPs are expected to exhibit similar patterns of accumulation and harm. The Arctic is a sink region for POPs and Arctic peoples insist that waiting for irrefutable evidence is poor planning. Nevertheless, the United States has proved reluctant to ratify the language that would enable the expedient listing of new targets. This paper reviews the background and evidence regarding the global issues of endocrine disruption and POPs contamination, especially as they relate to the far north. We find an urgent need for the US to ratify the Stockholm Convention, including the provision for the listing of new targets.



Both authors teach within the Department of Chemistry and Biochemistry, University of Alaska Fairbanks, Fairbanks, Alaska.

The full article can be seen in Environmental Science & Policy 6 (2003) pp. 341–353.

Survey of Living Conditions in the Arctic

By Jack Kruse
University of Alaska Anchorage

The Alaska Native Management Board (ANMB) met in Kotzebue November 10 to review initial Alaska results from the Survey of Living Conditions in the Arctic. The ANMB directs SLICA. Members of the ANMB come from Iñupiat regional organizations in the Bering Straits, Northwest Arctic, and North Slope regions and the Alaska Native Science Commission.

The Greenland Homerule Government initiated the project, which now involves Indigenous people and social scientists from Russia, Canada, Norway, Sweden, Greenland, Finland, Denmark and the United States.

According to Brian Lyall, an Inuit from Labrador Canada and member of the international team who participated in the ANMB meeting in Kotzebue, "I think that part of the intent here is to change the words used, to find the real indicators for people and how to measure these in our communities."

The Alaska team, a collaboration of the ANMB regional organizations and the Institute of Social and Economic Research at the University of Alaska Anchorage, is also sharing the preliminary results with residents in Kivalina, Selawik, Stebbins, Brevig Mission, Wainwright, Nuiqsut, Kotzebue, Nome and Barrow. The purpose of the review is to make sure the results are meaningful. Next steps in the project include completion of data collection in the other countries (it is complete in Canada and Alaska), development of an international data set and development of common analysis questions. Among the products of SLiCA will be reports to the Inuit Circumpolar Conference and the Arctic Council. For further information, see the project website: www.arcticlivingcondtions.org

HARC & SEARCH Conference Convened in Seattle

By Aaron Peters
ANSC Intern Student

From October 25th through the 29th, I had the pleasure of attending two Arctic science conferences put on by Arctic Research Consortium of the United States (ARCUS) in Seattle, Washington. The first two days were dedicated to Human Dimensions in the Arctic (HARC). The second meeting was an open science meeting, Study of Environmental Arctic Change (SEARCH). There were several other Alaska Native students from the University Alaska Anchorage (UAA) and University of Alaska Fairbanks (UAF) who were sponsored by a grant to the Alaska Native Science Commission (ANSC) by the National Science Foundation (NSF) to attend the meetings.

Left to Right: La-Ona DeWilde, C. Sean Topkok, Adelhied Herrmann, Elaine Abraham, Beverly Melovidov, Roda Grey, Stacey Stasenko, Aaron Peters, Nirvana Ramos

HARC had over 200 researchers doing work from arctic nations. HARC's main focuses and discussions were on human/environmental studies in the Arctic, sharing information and lessons taught from ongoing investigations and looking toward the future of Arctic research. Some of the participants were anthropologists, environmental scientists and sociologists. La-Ona DeWilde, Athabascan and currently a biology major finishing her Masters' degree at UAF, presented on Human Impacts to Fire Regime in Interior Alaska. Ms. DeWilde was one of the students sponsored by ANSC/NSF. Her presentation was of special interest to me because she is from my home region of Interior Alaska. There were many presentations and all were very informative and educational. The interactions and discussions with students and scientists were great.

The SEARCH conference focused on Environmental Change in the Arctic and had over 600 participants. It is amazing how much research is actually going on in the Arctic. Caleb Pungowiyi, an Alaska Native, spoke on Alaska Native's perception and concerns about change in the Arctic. For example, he mentioned that there is less and weaker ice currently on the ocean compared to a decade ago and that animals, such as beavers, are migrating farther north due to warming in the Arctic. It was stated that the Arctic is an alarm bell for the rest of the world in terms of environmental change. For 20 years of change in non-Arctic environments there is 10 years of change in the Arctic. The effects of change are devastating to all inhabitants of the Arctic, including animals and humans. The changes are irreversible. This is the purpose of the SEARCH meeting. What can we do to better adapt? What can we learn from the past history of changes?

Both the HARC and SEARCH conferences were very informative and an eye opening experience for me, as well as the other students. Many people are not informed on how fast the environment is changing and what factors are contributing to these changes. Many people see humans outside of the ecosystem, but humans are a natural part of the ecosystem. We contribute as well as take from our environment. We are a part of the natural "cycle of life". I was glad to have been granted the opportunity to attend the HARC and SEARCH meetings thanks to the generosity of the ANSC and the NSF. What will I do with this information? I hope to inform and help people understand what is going on in the Arctic community.

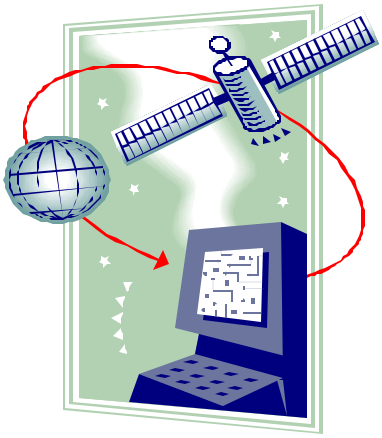
L-R: La-Ona DeWilde, Aaron Peters, Elaine Abraham, Nirvana Ramos, Stacy Stasenko, Patricia Cochran

ANSC's On-line Databases Encourage Partnerships Between Alaska Native Communities & Researchers

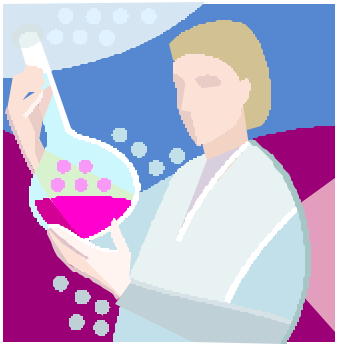
By Tungwenuk
(Gregory Nothstine, ANSC)

The Alaska Native Science Commission (ANSC) owns and maintains two websites on the internet, www.nativescience.org and www.nativeknowledge.org.

The first site, nativescience.org, is ANSC's primary domain where you can find information on ANSC, e.g., origin, history, address, staff, contact numbers, current projects, etc. The other website, nativeknowledge.org, is where you can find information like Alaska Native concerns about contaminants and the environment recorded at regional meetings. There is also an on-line resource guide for tribes interested in securing funding to conduct their own scientific research, as well as a Native foods database that highlights data on nutrition, harvest, consumption, contamination, etc. This resource guide also contains information in developing a Quality Assurance Program Plan (QAPP) and directs you to information already known about specific concerns.



There was a time when, if you wanted to find out about who was doing research in Alaska, you either had to go to a local university or go to a major funding source to submit a request. Getting a response could be time consuming. However, thanks to a National Science Foundation (NSF) Cooperative Agreement with the ANSC, this process has become a whole lot easier.



Now available on ANSC's primary web domain, under "NSF Funded Projects" is an on-line database that lists research projects funded by the NSF in Alaska. Although it currently lists research projects only funded by NSF, the database will be expanded to include research projects from other funding agencies (e.g., Environmental Protection Agency, National Oceanic & Atmospheric Administration, etc). In the mean time, ANSC has an on-line form that publicly funded research scientists can fill-out and submit, to describe the type of research they are working on in Alaska. The database search engine is set-up so that you can categorize or reference your search by community, region, or word title. Having this information available at your finger tips will be helpful to Alaska Native communities as they start conducting their own research. As they can review the database and identify potential research experts with whom they can collaborate or network.

In keeping with its mission to improve local participation in the research process, one of the goals of ANSC has been to increase access to and recognition of Native scientists, researchers, consultants and Native knowledge specialists. In meeting this goal, ANSC has developed a statewide directory of Alaska Native resources. The directory is a community knowledge database of past participants in regional meetings held in Alaska. Each participant has agreed to have their contact information and area of traditional knowledge posted on ANSC's website. This directory is searchable by topic, i.e., animals, plants, environment, human activities, etc. This database will be complemented with a listing of other Alaska Native agencies, e.g., federally recognized tribes, both for-profit and non-profit Alaska Native regional corporations, and Alaska Native regional health corporations.

The ANSC believes that providing this information will serve to help build quality partnerships between researchers and the Alaska Native community, so please visit ANSC's website (www.nativescience.org) and check it out for yourself. Afterwards, please share your comments by adding your name and comments in our on-line guest book.

How Can Sea-Ice Microbes Potentially Benefit Alaskan People?

Christopher Krembs, Polar Science Center, University of Washington.

Using microbes and their products in the service of mankind is not a new concept and dates back to at least ancient Egypt. Unaware of its source, yeast was used as leaven for bread. Since then, microbes have been used in many facets of modern daily life including applications such as fermentation, the production of lactic acid, alcohols, methane, the processing of dairy and soy products, in food conservation and as nutritional food substitutes and taste enhancers. In the last 3 decades new food additives have entered the markets with the increase in preserved foods. Several of these additives are slimy, mucus-like and have a wide range of positive properties such as food stabilization, keeping spices, oil, and water well mixed (e.g. salad dressing). Other additives can act as a liquid thickener (sauces, drinks and desserts, salad dressings, diet food, ice crème etc) or as a substitute for starches to reduce caloric intake and food intolerances.

Little do we reflect on the origin of the microbes, their natural products and the adaptive reasons the microbes produce these substances in the natural environment.

Naturally, these substances are produced either by seaweeds, extracted from plants or produced in large quantities by microbes in culture. These natural food additives have the capability to give fluids a wide range of very different properties due to the extraordinary length of the molecules of which they are made off. One widely known polymer used to thicken pudding is starch. Their ability to change the thickness property of food while remaining undetectable to the eye and taste make them a very attractive additive to industrially produced foods. As a consequence you find an increasing range of names on food package labels of compounds taken from seaweeds all the way to bacteria.

Table 1 Example of common food additives on packages that are made by organisms from a wide range of geographical areas.

Category	Name	Natural
SEAWEEDS	Alginate	brown seaweed
(carbohydrates)	Carrageenan	red seaweed
PLANTS	Arabinoxylan	bran of grasses
(carbohydrates)	CMC	derivative of cellulose
	Cellulose	wood pulp
	B-Glucan	bran of grasses,
	Gum	sub-Saharan
	Guar	leguminous
	Lacust bean	seed of the carob tree
	Pectin	fruit, citrus
	Starch	corn, wheat, potato, tapi-
ANIMALS (proteins)	Gelatin	animal skin and bones
BACTERIA (carbohydrates)	Xanthan gum	soil bacterium

Food polymers are typically long chains of repetitive sugar molecules and hence carbohydrates with the exception of gelatin which is made of proteins. Some of them we are able to digest (e.g. starch and pectin) while others pass our digestive system with little alteration (e.g. Xanthan gum). Hence their use as additive in diet foods.

For the organisms that make them, these substances serve more specific purposes of improving their immediate environment for survival. Many organisms are coated with a slimy film, which we know from fish, shellfish and seaweeds and even smaller microbes such as bacteria, and algae. We notice this slimy film as the slippery surfaces on seashores, rocks, wooden docks and occasionally on fishing nets. The polymers help to minimize drag in fish and seaweeds or can help to keep a surface from being overgrowing by other organisms. Some organisms use these slimy substances as a means to catch and filter prey (e.g. shellfish) or as a glue to stick to and crawl along over surfaces. At the same time, polymers can be used as physical barrier against drought, predation and viral infection or just simply to build a transparent structure in which the organisms can live (biofilms).

Recently we have found such substances also at high concentrations in sea ice in association with tiny algae, (Fig. 1).

Arctic sea ice covers a significant portion of the northern hemisphere ocean, forming and persisting at temperatures below the freezing point of seawater.

The flourishing life within sea

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ice is confined to a porous maze filled with brine (very salty water). These pores in the sea ice create a habitat for an ice-specific food web (sympagic food web) that includes bacteria, viruses, single celled algae and small invertebrates that can travel through the brine network.

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The flourishing life within sea ice is confined to a porous maze filled with brine (very salty water). These pores in the sea ice create a habitat for an ice-specific food web (sympagic food web) that includes bacteria, viruses, single celled algae and small invertebrates that can travel through the brine network.

Sea ice constitutes a thermal barrier between the cold winter air and the ocean beneath it, with the result that the interface between the ice and the seawater remains at the temperature of seawater. During spring and throughout the summer, when light begins to be available for photosynthesis, a large bloom of single celled photosynthetic ice algae develops within the lowermost sections of the ice. Ice algae are a very important part of the marine food web and contribute 57% to the total Arctic marine primary production. The interface between the ice and the seawater is therefore critical to the polar marine ecosystem.

Our recent findings have shown that sea-ice algae produce high amounts of polymeric substances (slime), which they secrete to the outside of the cell (exo-, meaning outside). They are therefore referred to as ExoPolymeric Substances (EPS) and are comprised of a large mix of different molecules. The substances are similar in their basic structure to polymeric food additives in that they are very long molecules, and have several effects on the property of water. Our ongoing studies have shown that these tiny ice algae and their EPS affect the physical properties of sea ice. This includes a change in the salt content of ice (it gets saltier) making the sea ice softer and giving it a very different and irregular structure, (Fig. 2). The presence of EPS can almost be envisioned as a means of sea ice bio-fouling. This effect has not been known for microorganisms in sea ice and opens up a several new line of interesting research and technical applications. Our ecological interpretation is that these ice algae use EPS to protect themselves against encroaching ice crystals and allow them to stick to the underside of the ice. The effect of EPS on ice crystal growth has potential use for medical applications, in the production of frozen beverages, desserts and any applications that have to deal with ice and its effect on food and beverages.

We are currently in the process of describing this substance class, their annual production and their effect on sea-ice physical properties off the coast of Barrow. Funding from the National Science Foundation is supporting this research.

If these substances prove to be of commercial value Alaska could benefit from their production. These algae are adapted to cold temperatures and low light levels in Arctic sea ice and they are found in Alaskan territories, therefore cultivation would logically fall into areas of coastal Arctic villages and has the potential to create small community owned enterprises of environmental friendly algae EPS production. However, more research will have to be conducted before we will know if polar EPS has the potential to make our ice-crème smoother.

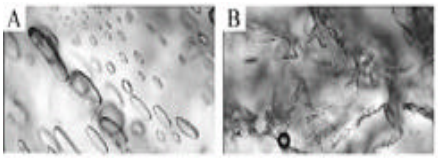


Figure 1 Microscopic images looking into the inside of natural sea ice. The with of the image is about 3 times the thickness of a human hair. A. Diatom inside a brine pore not stain, EPS remains invisible, B. Diatom and blue stained EPS around the cell.

A Subsistence Technical/Planning Meeting for the Protection of Traditional and Tribal Lifeways

By Marg Kruse, Contract Reporter for ANSC

Fred Corey (Presque Isle, ME) and Patricia Cochran (Anchorage, AK) Co-Chair the planning meeting

On April 13, 2003, fifty representatives of tribes from across the United States, the Environmental Protection Agency, and the Alaska Native Science Commission met for "A Subsistence Technical/Planning Meeting for the Protection of Traditional and Tribal Lifeways", in Anchorage, Alaska. As discussed and agreed in San Francisco, the meeting had three purposes:

1. Identify issues and concerns regarding contaminants in Traditional Foods
2. Discuss issues, resources, and gaps regarding contaminants and how they affect tribal ways

Share stories, information, and knowledge to develop the process and structure to protect traditional ways of life

Kesner Flores of the Cortina Band of Wintun Indians (right) facilitates Group 1's discussion. Here he poses a question to the group to reach consensus on the list of priorities that they have identified.

Many tribal people expressed concerns about the safety and wholesomeness of the food people eat. They are concerned about the effect of pollution from oil and gas development, mining activity, pulp mills, Superfund sites and municipal sewage discharge. Many also expressed concerns about the air deposition of pollutants. They all ask the same questions – "Is the food safe to eat? What is a safe level of contamination to eat?

There is expressed concern about the wide scale use of herbicides and pesticides. What is the effect when they are blown onto berries, other plants and medicinal plants important for the health of the people? The risk assessments that are used to develop 'safe levels' for contamination were repeatedly questioned. What is a safe level? Is there such a thing as a safe level? Do these assessments adequately address the lives of American Indians and Alaska Natives, and the way they interact with the environment? Do they take into consideration the amount of subsistence and traditional food people eat?

However, perhaps even more important than the effects on individual resources, is the effect on the cultures and traditional lifeways of the people who rely on those resources. There was concern over the long-term exposure to these contaminants because it is obvious that people are continuing to use the resources in spite of the contamination--whether it is because there is nothing else to replace those resources or because it is central to their culture and traditions.

Another major area of concern expressed was the inability to control the contaminants, their resources, the impacts on their food and traditional lifeways and ultimately the future of their Tribe and its traditions. Further discussions were on the issues of the Spiritual and Traditional Practices. "The Native belief is that if you damage anything within that sacred circle of life, eventually you damage yourself," mentioned Butch Phillips of the Penobscot Indian Nation.

By the end of the workshop the participants provided 19 action recommendations. Items of importance included incorporating Traditional Knowledge into hazard ranking, remembering smaller tribes and include their voices, create a database to track plants and the contaminants they may absorb, litigations regarding the Clean Water Act, the development of seed banks – seeds are a tangible connection to our ancestors, and propose to Congress a bill named the "Native American Traditional and Wild Food Security Act". A copy of the full report can be found online at ANSC's website: www.nativescience.org.

Vickie Hykes-Steere, (Anchorage, AK) scribes for Group 2

Group photo: After a long day's work, we're still smiling!

Calendar of Events

The North Slope Science Initiative Information Exchange Workshops
January 21—22, 2004
Anchorage, Alaska
January 26-27, 2004
Fairbanks, Alaska
January 29-30, 2004
Barrow, Alaska
http://www.ak.blm.gov

Alaska Forum on the Environment 2004
February 9-13, 2004
William A. Egan Civic & Convention Center
Anchorage, Alaska
Email: info@akforum.com
http://www.akforum.com/moreinfo.html

Enhancing Decision-Making through Integrated Climate Research: Alaska Regional Meeting
February 18-19, 2004
Captain Cook Hotel
Anchorage, Alaska
http://www.ogp.noaa.gov/mpe/csi/events/risa_021804.html

Western Regional Science Association 43rd Annual Meeting
February 25-28, 2004
Wailea, Maui, Hawaii
http://www.u.arizona.edu/~plane/wrsa.html

Arctic Climate Impact Assessment
March 8-9, 2004
Alaska Sealife Center
Seward, Alaska
http://www.acia.uaf.edu

Alaska Native Health Research Conference
March 30-31, 2004
BP Energy Center
Anchorage, Alaska
Email: dlbrollini@anmc.org

The 5th International Congress of Arctic Social Sciences
May 20-21, 2004
University of Alaska Fairbanks
Fairbanks, Alaska
http://www.uaf.edu/anthro/iassa/cass5sssab.htm

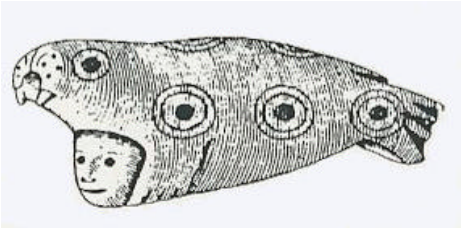
International Indigenous Knowledge Conference
May 27-28, 2004
Penn State University
http://app.outreach.psu.edu/IndigenousKnowledges/

The 3rd NRF Open Meeting: The Resilient North – human responses to global change
September 15—18, 2004
Aura College
Yellowknife, Northwest Territories, Canada
http://www.nrf.is

Discover the Physical World Through the National Science Digital Library

The National Science Digital Library (NSDL) is building the collections and services of an online digital library for science, technology, engineering, and mathematics education for all ages. Supported by the National Science Foundation (NSF), the NSDL provides access to materials and methods that reveal the nature of the physical universe and a way for humans to discover and understand it.

The collections described here represent only a few of the collections currently accessible or being brought online through the main NSDL portal. For more information on NSDL or these collections, contact David Hart at (703) 292-7737 or dhart@nsf.gov. National Science Digital Library: www.nsdl.org Images available at http://www.nsf.gov/od/lpa/news/media/newstips.htm



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Partnering between Arctic Communities and Researchers

By Anna Kerttula, Program Director, Arctic Social Sciences, Office of Polar Programs/NSF

Over the last decade, Arctic communities have increasingly become the location and object of formal scientific inquiry. The intensification of interest by scientific researchers in the Arctic can be attributed, although not exclusively, to an increased global interest in and funding for climate change research, increased access to research possibilities in the former Soviet Union, advances in technologies that allow greater access to remote regions with extreme climates, as well as the demands by Arctic communities to understand the rapid changes occurring in their environment and societies. These research agendas are driven not only by the interests of formal science but also by Arctic residents themselves. These circumstances have brought about a change in the Arctic community from being merely an object of study to being a research partner with a scientific agenda of its own.

This workshop will highlight the work of several sets of partners, e.g., scientists both academic and Native, working with Arctic communities on projects that serve the goals and interests of both. The purpose of the workshop is to gain insight into how to create partnerships, how partners complement one another, and what the successes and failures of the partnership enterprise are from each partner's point of view. The workshop will be structured with invited morning presentations from the partner projects and afternoon session of open roundtable discussions.

The workshop is to be held during the 5th Annual International Congress of Arctic Social Sciences on Saturday, May 22 and Sunday, May 23, 2004, at the University of Alaska Fairbanks. It is sponsored in partnership between the National Science Foundation, the Alaska Native Science Commission, and the Arctic Research Consortium of the United States (ARCUS).

Students and Arctic community residents interested in participating should contact Sue Mitchell at ARCUS, sue@arcus.org, 907-474-1600; or Patricia Cochran at ANSC, pcochran@aknsc.org, 907-258-2672 for information on travel grants.