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IPY Launch

The International Polar Year (IPY) was officially launched at the *Palais de la Découverte*, a famous science museum in central Paris, France on March 1st, 2007. Meanwhile, the official opening of the Indigenous Peoples' International Polar Year took place in Kautokeino, Norway from February 14th to 16th, 2007—attended by one of our own Circumpolar Young Leaders, Colleen Henry! For more information on IPY projects and events happening around the world, please see their Web site at www.ipy.org.

To learn more about the activities of the IPY Youth Steering Committee, see page 11.

Ookpik – Call for Submissions

The Ookpik Website, a portal for northern youth, is calling on Arctic youth from all circumpolar countries to submit creative works to be posted on our Web site at www.ookpik.org.

Tell us what it is really like to live in the Arctic. Share your images and impressions of the north. Explore our 2007 theme: "GET POLARIZED: Capturing the contrasts of the Arctic" through your own eyes. We have extended the deadline for entries to March 15th, 2007.

Visit http://www.ookpik.org/creativity/get_ookpiked.aspx to download your entry form or contact us by email at ookpik@iisd.ca or phone at 1-204-958-7700. Submissions are open to youth between 12–25 who live in or are from Arctic regions.

Circumpolar Young Leaders De-Briefing in Rovaniemi

Noelle DePape, IISD Project Officer

Home of Eurovision's "Lordi" monster metal band, the Arktikum (Arctic Centre and Museum) and the University of Lapland, Rovaniemi was the perfect backdrop for the Circumpolar Young Leader's debriefing session; it offered Canada's young northern leaders a space to explore both Finnish and Saami culture and history, while providing a beautiful setting for critical reflection and sharing.

All four interns keenly participated in the de-brief session:

- **Alex Stubbing**, our host based at the University of the Arctic;
- **Colleen Henry**, working at the Indigenous Peoples Secretariat in Denmark;
- **Sean Doherty**, coming to us from CICERO in Norway; and
- **Heather Main**, making her way from UNEP-GRID in Arendal, Norway.

Generously housed for our training at the spectacular Arctic Centre, the interns shared their experiences with one another, detailing their lessons learned from their five month overseas internships and sharing professional and personal challenges and successes.

What made this training particularly special was the chance to meet with local researchers, activists and community leaders in Rovaniemi to learn about local Finnish and Saami issues related to cultural and environmental sustainability.

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Arctic Interns with Paulina Feodoroff at the Arktikum.

De-Briefing in Rovaniemi

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For example, after viewing a documentary illustrating the effects of deforestation on the Saami's traditional livelihood of reindeer herding, we engaged in an intimate dialogue with Paulina Feodoroff from the Saami Council that was both insightful and eye-opening. Many comparisons were made between the struggles faced by indigenous peoples in Canada and the Saami in Finland—both grappling with the challenges of modernization, loss of traditional culture and climate change.

We were also privileged to have presentations from:

- Elina Helander, from the Arctic Research Office for Saami and Indigenous People, who shared her research findings on the traditional ecological knowledge of the Saami;
- Antti Aikio, a representative from the Saami Parliament, who spoke to us about the Saami Sustainable Development Strategy;
- Leif Rantala, Professor at the University of

Lapland, who shared his experiences working with the Russian Saami and showed us his extensive artifacts collection.

As our Arctic interns return back to their home communities to work toward positive change, these opportunities for networking and exchanging ideas were invaluable.

In addition to the professional opportunities provided at the training, we also took some time to explore our surrounding environment. On the culinary front, we dove into local delights—tasting local white fish and salmon, as well as feasting on reindeer

stew and potatoes at Lordi's Rockaurant. On the cultural front, one of the highlights of our short stay in Lapland was the visit to the Arctic Circle, where Santa Claus (and some of his 200,000 reindeer) reside. We also had the opportunity to try our luck at reindeer herding—with the help of a guide who showed us how to gather the reindeer, saddle them up and took us on a lovely journey through a snowy, enchanted forest to a Finnish teepee where we warmed up with hot lingon berry juice, biscuits and a fire.

All in all, the de-briefing was a success—connecting the interns to local peoples and customs and giving them the time, and space, to truly reflect on their internship experience. There is no doubt, that this will not be the last you hear about the 2006-2007 Circumpolar Young Leaders—with active minds and passionate spirits, they have much to offer northern Canada and the circumpolar world.

Check out Sights and Sounds below for more highlights of the CYL de-briefing.



Interns on a sleigh ride. Hands-on learning about the reindeer in Lapland.

SITES AND SOUNDS

Arktikum (*The Arctic Centre*)



The ceiling of Arktikum.

Located on the outskirts of the town of Rovaniemi, the Arktikum provides locals and visitors alike with unique insight into the way of life, culture and history of the north. The Arktikum serves as a museum, science centre and popular

cultural venue with impressive meeting and congress facilities and a spectacular architectural sight. It hosts a number of researcher's focused on doing research about Arctic issues.

<http://www.arktikum.fi/>

Lordi – Monster Rock!

Lordi is a "Legend" in Rovaniemi! This metal band, who is never seen without their monster costumes, is the winner of the 2006 Eurovision Song Contest with their hit "Hard Rock Hallelujah." Mr. Lordi, the lead singer, is originally from Rovaniemi and his stardom in the town incredible. Not only does Rovaniemi sport a Lordi Rockaurant (where the Circumpolar Young Leaders

stopped for a delicious dinner one evening after their de-briefing), but the main square in town has been named after the group (Lordi Square) and the mayor of Rovaniemi gave Lordi a key to the city as a tribute to their success.



Lordi as featured at Lordi Rockaurant in Rovaniemi.

A few months ago, our Circumpolar Young Leaders (CYL) were asked to write an article about a leader in the Arctic. They interviewed leaders working in communities, Arctic organizations and the media.

This special section showcases excerpts from their articles.

Perspectives of a Saami Leader on Culture, Language, and Climate Change

An interview with Gunn-Britt Retter, Head of the Arctic and Environmental Unit of the Saami Council

Sean Doherty, CYL intern



Gunn-Britt Retter,
Head of the Arctic and
Environmental Unit of
the Saami Council

I am sitting in conference room in a nice hotel in Tromsø, at the tail end of the town's Tromsø International Film Festival, talking to Gunn-Britt Retter, acting head of Arctic and Environment unit of the Saami Council, who is sitting across from me. I am lucky to have the opportunity for a face to face interview, as I had wanted to interview Gunn-Britt as an Arctic leader, but given that I live in Oslo and Gunn-Britt lives in the far north of Norway, I was worried that a face to face interview would be impossible. As a matter of chance, Gunn-Britt and I are both in Tromsø today, although for very different reasons. I am here to experience a part of Norway's Arctic, see snow again(!), and catch a weekend of the film festival, while Gunn-Britt, who is no stranger to northern Norway, is in town for the Arctic Frontiers conference. At the conference, she will be representing the Saami Council and part of her role will be to remind researchers that despite what the name of the conference, "Arctic Frontiers,"

suggests, the region is not only a place to be conquered or examined, but is also the home of Saami and many other peoples who must be recognized when research is conducted.

As soon as I meet her, and during the planning of the interview, I can tell that Gunn-Britt is a really nice person. She is completely friendly and unpretentious, while remaining direct and focused in the goals of her work, as one must be to be a leader in the Arctic. We begin to chat and I quickly realize that some of my questions, while great on paper, are not the most fun to have to answer. They demand dividing up issues and subjects into discrete sections, which is not the way that Gunn-Britt sees the issues. For example, Gunn-Britt has a strong background in education, cultural identity, and language. She has taught children in both Saami and Norwegian, been an advisor for language courses and projects, and has earned several degrees, a Bachelor's in education theory for primary school teachers, a Master of arts in bilingual studies from Trinity College in Wales in 2001 and more education in multi-cultural pedagogy. So, when I asked her how she made the transition from a strong focus on language issues and education to working with the Environment and Arctic, Gunn-Britt is quick to point out that she holds a

holistic perspective when it comes to the issues that she is involved with. Environmental issues are "can't be seen as separate, it's about our life, and closely linked to our traditional knowledge and our health and well-being." For example, the Saami language holds much of the knowledge of about nature, so preserving the Saami language is not just a language and cultural issue, but also an issue of the environment and well-being. Preserving both the language and the environment are integral to the Saami culture and way of life. Logging on Saami lands outside of the northern Finland community of Inari, for example, is both an issue of industry and environment, but it is also a human rights issue—being able to control and preserve your land. In the end, Gunn-Britt says, these issues boil down to issues of indigenous peoples' rights.

The focus of the Environmental and Arctic unit of the Saami Council, which Gunn-Britt is head of, is to follow the work of the Arctic Council. The unit tries to bring an indigenous and Saami focus to the Arctic Council agenda. Currently, Gunn-Britt is involved in a wide range of projects such as the Arctic Climate Impact Assessment, the Arctic Human Development Report, and the ongoing Arctic Social Indicators project.

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Cooperation in the new face of Arctic research

Heather Main, CYL intern



Shari Gearheard (right) is part of the hopefully growing group of researchers who make a permanent connection with the people of the Arctic.

“Why are you asking me again? What do you DO with this information anyway?” This is what people in the Arctic may begin to wonder as more and more researchers from the south arrive in their communities.

With the launch of the International Polar Year (IPY) in March 2007, research in the Arctic is booming. Since communication between researchers is sometimes lacking, there is the potential for burn-out of local knowledge-holders as they are asked to repeat the same information over and over again. In many cases, researchers fail to communicate their findings back to local communities.

Shari Gearheard is part of the hopefully growing group of researchers who make a permanent connection with the people of the Arctic. Originally from Windsor, Ontario, Shari has conducted research in Nunavut for twelve years. Two years ago she moved with her husband to Clyde

River, a community of less than 1,000 people on the eastern coast of Baffin Island. It is here that she documents Inuit knowledge of environmental change and links this knowledge with science as a researcher for the University of Colorado.

Living in the community is an ideal way for Shari to incorporate local knowledge into her research projects. The translator, hunters and Elders she works with have truly become partners in her research—they have even been co-authors on her published papers. As Shari puts it, “[the hunters and Elders that I work with] know what I’m doing and what I’m trying to get at, so they often come up with ideas.”

A good example occurred when Shari presented her Igliniit project—a proposal submitted to the Canadian IPY funding call—to the Hamlet Council of Clyde River. The project as Shari presented it involves mounting mobile weather station/GPS units onto snow-machines as a way of monitoring environmental change. The Hamlet Council was keen, and quickly came up with some other applications for this technology, including using it for search and rescue operations and land-use documentation. Collaborations like this ensure that Arctic research is useful not only to the research community, but also to the people who live in the Arctic.

Consulting the community on ideas for projects is only the first step. Shari also works to keep both Clyde River residents and the wider Arctic community

updated on the results of her research. Living in Clyde River allows Shari to choose the most effective ways of communicating to Arctic residents—through meetings and local radio and the Internet, which Shari observes is becoming increasingly accessible and popular since the introduction of broadband Internet service in Nunavut. A bulletin board in the local Hunters and Trappers Organization building also keeps people updated on the results of sea ice monitoring around Clyde River, which occurs as part of a knowledge exchange project Shari is leading that connects local people and researchers between Alaska, Nunavut, and Greenland. It’s called *The dynamics of human-sea ice relationships: Comparing changing environments in Alaska, Nunavut and Greenland*, and it is funded by the National Science Foundation. The results of Shari’s Ph.D. research on Inuit knowledge of environmental change, which she conducted in Baker Lake, Nunavut as well as Clyde River, were published in an educational interactive CD-ROM (*When the weather is Uggianaqtuq: Inuit observations of environmental change*), which was produced by the National Snow and Ice Data Center (U.S.) and distributed to all schools in Nunavut by Nunavut Tunngavik Inc.—an organization which represents the Inuit under the Nunavut Land Claims Agreement.

Shari has a vision—that in the future, funding for Arctic research will run more through local communities, with Inuit in Nunavut and local people in all Arctic countries taking more control over research. Shari believes that the key to sustaining the present interest in Arctic research is to build research capacity at the local level, which is why she is working to set up a heritage/research centre in Clyde River.

Of course, living in the north is not all about advancing Arctic research for Shari. In her own words, she simply “fell in love with Clyde.” With a growing dog team, a cabin and an increasing knowledge of Inuktitut (“heavy on the weather vocabulary”), Shari appears to have settled in nicely—and let’s hope she sticks around.

Ashley Dean, a modern Inuk leader in the midst of traditional education

Alex Stubbing, *CYL intern*

Sustainable leaders in the circumpolar world naturally create an atmosphere in which culture is protected, and subsequently preserved.

Ashley Dean, of Rankin Inlet, Nunavut, has proven herself time and again as a versatile and effective leader. In recent years she has been selected as one of the National Aboriginal Health Organization's Role Models for 2006; crowned as Miss Nunavut in 2005 for Miss World Canada; and was a recipient of the Prince of Wales' Scholarship for volunteerism. She has used this recognition to raise the awareness of northern issues whenever possible. Talking to Ashley, it is evident that she is passionate about Nunavut. She discusses the culture of the territory with an ardent tone. She expresses the need for positive action.

"I don't just sit and watch, I have had plenty of time to talk about issues in the north, and not just negative issues," she proclaims.

Ashley attended the Nunavut Sivuniksavut (NS) Training Program in Ottawa, a college where Inuit students explore topics such as Inuit Land Claims; she found the curriculum very useful and positive.

"I wanted to know all the facts about northern history, I always learned bits and pieces, but after NS they all tied in," she explains.

Ashley has twice traveled to Germany, once for an anti-racism conference and again to promote sealskin products. She also participated in a cross-cultural indigenous group trip with her NS class to Costa Rica. Following NS she went on to complete a hairdressing program in Ottawa, and then ended up starting her own hairdressing studio in Rankin Inlet.

Sustainability has a multitude of interpretations. Most have correlations with climate change, the environment or wildlife. The public is constantly inundated with information, statistics and

numbers regarding our changing world, all of which seem to be costing us our cultures, histories, languages and customs. However, we rarely hear of what actions are being taken to preserve and advance the elements that make up a cultural identity, despite indigenous groups becoming more adapted to western culture.

The Nunavut Teachers Education Program (NTEP) is an excellent example of preserving Inuit culture and language. Ashley is in her third year of NTEP studies in Iqaluit. NTEP is a partnership with McGill University, and offers campus and community-based programs that prepare Inuit for a career in teaching. Ashley thinks NTEP is a way of preserving culture and language; it is an innovative way to incorporate traditional knowledge into a modern educational system.

"They really focus on Inuit traditional knowledge in all years of the program, no matter what course," she says.

There is also ample field experience available. Ashley has completed practicums in Pond Inlet, Iqaluit and Rankin Inlet, participating in classrooms ranging from kindergarten to grade nine.

Ashley and her classmates are an incredible resource to Nunavut and Inuit people. Ashley aspires to become a high school teacher within the area of northern studies. She wants to give more options to students who are close to graduating, and ensure that they also have the opportunity to learn trades, such as hairdressing. She would also like to see "a structured Inuktitut system [of language instruction] in the high school[s] for beginners, individuals and advanced speakers."



Ashley Dean out on the frozen tundra.

History has shown that the loss of language is a signal of a diminishing culture. Getting NTEP-trained teachers into the Nunavut school systems is a further step in creating an environment where Inuktitut is predominant in the daily life of both Inuit and non-Inuit students. Ashley is convinced that, "Inuktitut-speaking teachers are really important. Inuktitut-speaking students can benefit without any language issues," she says. "It is a reinforcement for students with little knowledge of Inuktitut who should be surrounded by the language as much as possible."

In order for Inuktitut to survive with the influx of new cultures and attitudes coming to Nunavut, Inuktitut will have to become present in the school system to a greater extent. Ashley has a very encouraging outlook.

"In various smaller communities a lot of the elementary teachers are now Inuit. I am hopeful for the language. I see a good future," she says.

Ashley thinks that if the people of Nunavut continue to work at it, we will definitely see results.

"I see it with my peers, I am proud of my classmates; the quality of work and devotion they put into their education," she says, adding, "it gives me hope."

How Saami Radio became a tool of cultural preservation

Colleen Henry, CYL intern



Nils Johan Heatta, Saami radio leader

As an intern working in communications at the Indigenous Peoples' Secretariat in Copenhagen, I decided to profile a leader in communications—the director of Saami Radio Nils Johan Heatta. To begin, the Saami make up about 40,000 people in Norway. Saami radio started after the Second World War when the Norwegian Broadcasting Corporation (NRK) began broadcasting programs in

the Saami language. The Norwegian government initially promoted it as a means of broadcasting an assimilation message. However, the Saami radio journalists soon began broadcasting other information—such as news and information—and it evolved into a means of culture and language promotion instead.

Reflecting back on those early broadcasts Heatta talks about the reaction of the Saami people. “When the radio presented cultural activities and news it built up a new Saami society. From mid 1950s when assimilation politics started to weaken, the radio was used more and more to promote Saami culture and language,” he says. “I’m quite sure if there hadn’t been a Saami radio broad-

cast after WWII, the Saami language would not be at all” he adds.

Today’s Scandinavia has a completely different attitude. Radio and television broadcasts are produced in three permanent languages, North Saami, Lule Saami and South Saami.

This breadth allows Saami Radio to convey information on climate change, language, culture and other issues of importance not

only to all Saami people but a worldwide audience. And these efforts are paying off. More non-Saami speaking viewers are tuning into subtitled Saami news broadcasts regularly for quality programming from a unique, indigenous perspective.

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“I’m quite sure if there hadn’t been a Saami radio broadcast after WWII, the Saami language would not be at all”
– Nils Johan Heatta

History of the development of Saami radio



Map of Lapland.

According to archeological evidence, the Saami people are the oldest known inhabitants of northern Europe, having lived across Norway, Sweden, Finland and the Kola Peninsula of Russia anywhere from between 2,5000 and 10,000 years. Their traditional lifestyle of cattle-raising, trapping, fishing and reindeer herding was maintained until the 19th and early 20th centuries, when the Norwegian government began implementing assimilation policies such as insisting that land-use transactions be conducted in Norwegian.

After WWII, there was an even stronger assimilation push across Scandinavia through NRK. The radio station began broadcasting

programs in Saami to encourage Saami-speakers to assimilate.

Until then, communications between Saami relied solely on traveling messengers. Of course, NRK used Saami themselves to communicate assimilation messages, and these first Saami journalists quite naturally began broadcasting other news and issues of importance to Saami people beyond what the Norwegian authorities intended, sparking another use for radio, and a broader use for the Saami language itself.

Ironically, what began as a great effort for cultural assimilation turned into a significant movement for the revitalization of Saami language and culture.

ARCTIC LEADERS PROFILES

Saami Radio

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Radio broadcasting has also been very successful. There is a guaranteed broadcast of six hours each day Monday through Friday and an hour for each weekend day on the national network. Content includes news, entertainment and service, cultural and youth programs.

Modern technology has opened a whole new medium to further expand Saami Radio's success. A new Web site is in the works. As well, through Internet technology, Saami Radio has joined other indigenous peoples' media corporations—including "Kalaallit Nunaata Radioa" (Greenland), "Mauri Television" (New Zealand) and "Aboriginal Peoples Television Network" (Canada)—in an international endeavor to bring indigenous peoples history, culture, language and issues of importance to light.

There is much work to do. Future plans include creating an exchange program to

allow journalists to completely submerge themselves in the culture of other indigenous partners. But before such a program will succeed, Saami Radio must first concentrate on producing more documentaries and programs. And to do this, they must first recruit more journalists. Saami College in Kautokeino offers an extensive journalism program. There is also a special program in Lillehammer for technicians. Of some relief to recruiters, are the common Saami languages across the Scandinavian countries, which make it easier for journalists and their broadcasts to travel from country to country.

In this important era when climate change affects the northern regions and brings forth new possibilities such as a freely open northern passage route, offshore Arctic oil and gas development and severely unpredictable weather phenomena, it is necessary to have the opinions, observances and traditional knowledge of the original inhabitants of

the northern region to direct, inspire and enlighten world governments and their citizens. The continuing progress and influence of Saami Radio in the regional, national and international forum—despite early national pressures for Saami assimilation—is indeed an inspiring story.

Continued progress on relationships-building with other indigenous peoples will only serve to strengthen and amplify these unified voices. For these reasons Saami Radio itself is an important Arctic leader. May they continue their work, and be heard as new northern challenges unfold.

Nils Johan Heatta is a Director of Saami Radio and has been active in promoting inter-Scandinavian Saami broadcasting collaboration. In 2000 he initiated a project to assist the Russian Saamis in restarting Sam Radio Broadcasts in the Kola Peninsula. A thousand thanks to Mr. Heatta for his time.

Perspectives of a Saami Leader

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These projects address the lack of statistics on the Saami, which in turn enhances policy-making and impact, and increases the Saami's own understanding of themselves as a people. Gunn-Britt is working on a lot of indicator work herself, including the Convention on Biological Diversity.

We move on to chat about language issues, as I have many questions about the Saami language and Gunn-Britt has much insight on in this area.

When Gunn-Britt's mother went to school in the 1940s, she was not allowed to speak the Saami language. There was an idea that speaking Saami was a negative thing, as though it hindered learning Norwegian. Luckily, the situation with the Saami language has been improving since the late 1960s. Things were much better when Gunn-Britt was in school, and now as

an adult she has been able to study and teach entirely through the Saami language. There is now a language act, which allows a person the right to deal with municipal issues in either Norwegian or Saami, and Saami is an official language of Norway. Gunn-Britt strongly emphasizes the

importance of not trying to conserve or preserve language or culture, because it doesn't belong behind glass in a museum, but that it remain dynamic-constantly changing and growing.

But climate change and environmental issues, on the other hand, are very pressing. "Indigenous economies are at stake, and this is just one of many stressors—our economies are already vulnerable." More studies of

the environment need to be conducted, and the Saami need to integrate with their own Saami TEK. Research in Norway, and research in general, often neglects those people who have been living and still live in the area of study, even though it is these people who possess much knowledge and will be affected by changes that take place, including their ability to return to their lands.

So, after doing all of these things, what other endeavours might the future hold for Gunn-Britt? She has a wide range of possibilities, which I certainly believe. Working on the international arena is a possibility, such as within the UN on indigenous issues. At the same time, she could see herself working on a local scale, perhaps being a mayor in her home municipality in northern Norway. Whatever Gunn-Britt decides to do, she sees her work having a strong focus on the Arctic, and, I'm sure, it will be very meaningful.

"When Gunn-Britt's mother went to school in the 1940s, she was not allowed to speak the Saami language."

"There is now a language act, which allows a person the right to deal with municipal issues in either Norwegian or Saami and Saami is an official language of Norway."

Reflections on Arctic climate change and Canadian sovereignty

S. Jeff Birchall

Perhaps the most compelling reason to study Arctic climate change and Canadian sovereignty is because controversy exists. My interest in Arctic climate change began in the late 1990s, while studying physical geography at McMaster University. Since then I have completed more studies and gained new experiences, and as a result have become more aware of the interconnectedness of Arctic climate change and Canadian sovereignty.

Climate change is not a new phenomenon, nor is Arctic warming. The influence that Arctic warming has on politics, however, is new. Communities are told that warming is a result of increased greenhouse gas emissions, particularly the increase of CO₂ output, and is anthropocentric in origin; states and non-governmental organizations fashion protocols and acts to lower CO₂ emissions, hoping to stave off the effects of warming.

But really, what causes Arctic warming? Is it anthropocentric or the result of natural variability? Either way, the next controversial question is: will the waters of the Canadian Arctic Archipelago see an increase in international commercial shipping as a result of the warming and subsequent recession of ice? If shipping were to increase, a plethora of impacts would

need consideration; from environmental risk to policing and surveillance.

The third controversial question is whether Canada will lose sovereign control over the waters of the Archipelago, particularly the Northwest Passage (NWP). Currently, some who desire international strait status for the NWP oppose Canada's claim because—as an international seaway—they would have greater access to the Passage and greater say over its governance. This opposition, which is particularly strong from the U.S., will increase as the passage becomes further ice-reduced towards mid-century.

These questions affect a myriad of different players from the local Inuit community, to the Canadian government, to the international community. This is a subject that will increase in local and international importance as the Arctic continues to warm, or at least until a consensus emerges on the future of Arctic marine transportation.

Ultimately, in the near-term, Canada's claim to the NWP will not be thwarted because of an increase in international commercial shipping. Warming may be reducing the oceanic and Archipelagic ice cover, but increased shipping via the NWP won't necessarily be the result—

navigation is becoming increasingly erratic thanks to the shallow channels of the NWP and the free flow of sea ice.

It is important, however, for Canada to retain control over the waters of the Archipelago into the future because if and when shipping does increase, the Arctic will need a steward with a vested interest in its well-being. Canada understands that the Arctic is a zone of unique ecology, where its species' are adapted to a narrow range of environmental tolerance. Knowing that shipping will threaten the balance of the Arctic's ecosystem, Canada-as-steward should minimize the imbalance and protect the Arctic's ecology.

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Jeff Birchall joined the Toronto and Region Conservation Authority (TRCA) during the summer of 2006, after a term with the Ontario Ministry of the Environment. At the TRCA Jeff is active on climate change, serving as Technical Expert on the Climate Change Special Project.

Jeff has a Bachelor's degrees in physical geography from McMaster University, and environmental science from the University of Northern British Columbia, and a Master's degree in Arctic climate change science and Canadian sovereignty from York University.

Climate Change and Arctic Sovereignty: Quick Points

- improved navigation via the channels of the Archipelago will not occur until its ice is dramatically reduced, eliminating choke points and significantly reducing the presence of erratic bergs;
- given the current hazard associated with the NWP, it's doubtful that a sound shipper will choose unknown danger—and potential delays—over the ordered and predictable conditions of, say, the Panama Canal;
- for its part the Canadian government does not condemn increased shipping

in the Archipelago, so long as it retains a strong voice in determining the standards and policing regulations to govern ship operations.

- though Canadian sovereignty over the NWP is not currently in danger, it is not legally clear what would constitute enough international interest to threaten Canada's sovereignty in the Arctic;
- thanks to the polar winter, temperatures in the Archipelago, following the end of the summer month period in October, return to freezing. Notwithstanding current temperature fluctuations, this trend is not likely to change in the near term (next 50 years).

Making science relevant to Arctic communities

Methodologies for stakeholder involvement in community studies

Sean Doherty, CYL intern

The upcoming International Polar Year will be an exciting time for research in the Arctic. However, it is important that this research has a tangible benefit to the residents of the Arctic. Fortunately, research over the last five to ten years has had an increasing focus on the needs of stakeholders—people who stand to be impacted by changes in the area being studied—and their potential role in contributing to the design of the research process. Many studies include stakeholders in the planning process, as well as incorporate their observations and knowledge into research findings to gain a better understanding of location-specific climate change and its impacts. Stakeholder observations can be used to suggest aspects of climate change to further analyze, ensuring that studies focus on impacts that are of relevance to residents. Some of these studies also examine historical responses to environmental changes, providing a context from which to arrive at a baseline understanding of adaptive capacities within communities.

A climate change study often involves community-wide workshops to collectively identify observations of importance, determine the consequences of these changes and determine adaptations that can be made at the individual, household, and community levels. Studies may also conduct individual interviews in a semi-structured format to collect observations of climate change. As local understandings and observations of climate change can be tightly linked to one's local ecological knowledge, there is much overlap, making demarcation between bodies of research on local knowledge and climate change research in the Arctic difficult. More than anywhere else, the Canadian Arctic has been the source of studies recording local

knowledge and observations of climate change in Inuit communities.

So Arctic research is increasingly involving local stakeholders in the process, but how is this important? This is important because science can easily become affected by the priorities of those involved in the project. Science in the Arctic must be grounded in the needs of local communities, rather than centred entirely around researchers' priorities. The needs of

“Science in the Arctic must be grounded in the needs of local communities, rather than centred entirely around researchers' priorities.”

local communities, especially in responding to climate change, must be kept in mind when deciding which subjects to study. So an important question to consider is: How can we make research more responsible to the peoples of the north? It would seem that a more democratic science that incorporates the values and experiences of both researchers and multiple stakeholders in the Arctic will add to the completeness of science on the Arctic.

In addition to conducting scientific research more democratically through stakeholder consultation, scientific research on climate and environmental change can be enhanced by the knowledge of locals who have a close relationship with the environment. Whether we call this knowledge traditional ecological, user, indigenous or local knowledge—it is a legitimate and dynamic form of knowledge that has developed through systemic observation and interaction with the local environment over a long period of time. Local knowledge can be extremely valuable in providing a long-term and richly detailed understanding of a locality and its history—particularly because such observations are often lacking in the scientific record. As well, local knowledge can be

used to direct scientific investigations towards observed changes, even though science and local knowledge may investigate a similar topic, but frame it in very different ways. Finally, by incorporating local knowledge into scientific research, scientists' foci are often directed towards aspects of study that are important to the community.

To learn more about Sean's analysis of stakeholder participation and interview techniques, see www.ookpik.org



Sean Doherty is an intern in the IISD Circumpolar Young Leaders Program, 2006-7.

For his placement, he is working as a Research Assistant at the Center for International Climate and Environmental Research-Oslo (CICERO) in Norway.

Sean has a background in biological sciences and health, and earned his Bachelor's degree in bio-medical sciences from the University of Guelph.

Most recently, Sean has been conducting a meta-analysis of Arctic climate change research. This article explores his findings.

Outi Snellman – The face behind the “University of the Arctic”

An interview with Outi Snellman

Interviewed by Noelle DePape, IISD Project Officer

On my first evening in Rovaniemi, I had the opportunity to meet Outi Snellman, the Director of Administration and University Relations at the University of the Arctic (U. Arctic). Before treating us to a traditional Finnish dinner, Outi and I took a few minutes to sit down to talk about how she got involved in U. Arctic, and some of their up and coming initiatives.

Q1: What is your background Outi? What led you towards working on Arctic issues?

My background is in English literature. I studied at the University of Helsinki. Actually, I know more about Shakespeare than I know about Arctic science! After completing my second Masters at the University of Nevada, my first job when I got back was working for the Fulbright Commission. I got really interested in the study-abroad programs. I then worked as the Director of the International Relations Department at the University of Lapland, working on student mobility and student exchange programs.

I then realized how valuable it would be, if rather than simply building relationships with southern institutions, U. Lapland could collaborate with other northern universities like Alaska University, etc. This is where my involvement in Arctic issues really began.

Q2: Where did the idea for the University of the Arctic come from? How did you end up working at U. Arctic?

In 1997, there was an Arctic Monitoring and Assessment Program (AMAP) meeting in, Kautokeino, Norway—it was here that people dreamt up the idea for U. Arctic. There was a desire, coming from the Arctic Council’s working groups, to increase cooperation between circum-

polar nations in the area of higher education. A concept paper was then put together and the U. Arctic concept was further developed.

At this time, I was the Secretary General for the Circumpolar University Association. I was asked by the governments of Finland and Canada to do a feasibility study for the U. Arctic and in 1998, we put forward a proposal to the Arctic Council, at a Canadian Ministerial meeting, to establish the U. Arctic. As Canada was chair at this time, the creation of U. Arctic was one of the deliverables to the Arctic Council.

The U. Arctic was then launched in 2001, at the same time as the 10th anniversary of the Rovaniemi Process, one of the foundational meetings for the Arctic Council. The University of the Arctic was not so much a project of the Arctic Council, but rather a project around higher education and collaboration

“There is a lot of capacity in the north and northerner’s need to have a stronger say in how research is done in the Arctic.”

– Outi Snellman

between northern institutions that was supported by the Arctic Council.

We often say that “we ate our mother,” since when the U. Arctic was established, the Circumpolar University Association got assimilated into U. Arctic and now no longer exists.

Q3: What projects is U. Arctic currently taking on?

Well, one important project is the planning of a rector’s meeting where the heads of all our member institutions can come together around the table to dialogue about higher education and Arctic issues. At this meeting, some very important philosophical questions will be look at, like what role and stake northern institutions have in the International Polar Year (IPY).

This dialogue is something that is very important to U. Arctic. We would really like to see northern institutions and researchers have more say in defining the Arctic research agenda. We want to demonstrate that the knowledge on the Arctic, lies in the north. There is a lot of capacity in the north and northerner’s need to have a stronger say in how research is done in the Arctic.

Check www.ookpik.org to find out what U. Arctic is doing for the International Polar Year, and Outi’s vision for the circumpolar world

For more information on the programs of the University of the Arctic please check out their Web site at <http://www.uarctic.org>

Outi Snellman is a strong advocate for creating a north that is full of opportunities for young people.



Interview with Amber Church—Co-Chair of IPY International Youth Steering Committee

Interviewed by Noelle DePape, IISD Project Officer

Amber was the youngest participant at the Second International Conference on Arctic Research Planning (ICARP II) in Denmark, one of the official youth delegates for COP11, the UN Climate Change Meetings, not to mention a mentor for youth taking part in the Students on Ice Expedition in Antarctica. I was lucky enough to catch Amber in late February for a chat, before she headed off to the IPY launch in Paris. Quite the impressive slate of accomplishments for a masters student from Whitehorse!

Q1: Wow, the IPY launch is just around the corner you must be getting excited... What are you working on right now with the IPY Youth Steering Committee?

Very excited. I will be at the international launch for IPY in Paris on March 1st.

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For the launch, we have youth from all over the world writing letters to elected officials to voice their concerns about challenges facing the polar regions and to talk about what they are doing to make a difference.

There is also something going on called the “Polar Contest”—which was spearheaded by our New Zealand national group. Young researchers in a number of different countries are writing one-page information sheets about the work they are doing, designed for teachers. Then the teachers are taking these materials to help them teach units on different polar issues. Students are then asked to do projects about the issue that most interests them which can be in the form of photos, videos, essays or science projects.

The best projects are then chosen and entered into regional contests and winners are then hosted at national science museums and projects are put on dis-

play. Plus, for those lucky few who win at the national level, they will get to come to our international conference where they will get to present their work.

We will also be hosting an international youth conference to be taking place in late April or early May in Europe. It includes three components: the *Youth Round Tables on the Poles*, where they can interact with politicians and Arctic leaders; the *Polar Fair*, an interactive room of exhibits where different polar organizations and NGO’s will display their work and where youth can learn about the

poles through art, drama and photography exhibits, among other

“Climate change is the top issue facing the entire planet, but the Arctic is seeing the effects much sooner and more rapidly than other places.”

– Amber Church

things; and the *Young Researchers Conference*, a science/social science conference for young researchers to present their work with a very interdisciplinary approach.

Q2: What do you think are the main issues that Arctic youth face around the globe?

1. Climate change is the top issue facing the entire planet, but the Arctic is seeing the effects much sooner and more rapidly than other places.
2. The effects on traditional culture and languages that many communities are facing. Many young people are not even learning their traditional languages. Western culture has invaded the north so much that the

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Amber founded the International Polar Year International Youth Steering Committee. Drop by drop, Amber is building a stronger north.



Amber Church in Antarctica with the Students on Ice expedition.

Interview with Amber Church

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traditional cultures are being pushed out. It has been motivating working with young indigenous leaders who are trying to address these issues.

3. Health—because of the substance abuse, suicide issues, domestic violence. Northern communities are still really struggling to deal with these issues. I was working in Watson Lake for a while. It was really frustrating to see kids who have so much potential having to grow up in this type of environment.
5. Resources development—the paradox of needing to protect the environment, but at the same time provide employment and economic development for the people.

Q3: How can youth work for positive change in the Arctic?

Get involved!

There is so much creativity and passion and enthusiasm within youth that they can really tap into and use their voices. Many youth just need

the venue to be able to do this—they don't know where to start. But I want to say that there are opportunities out there for them—through the Circumpolar Young Leaders Program, the IPY Youth Steering Committee and the Arctic Youth Network to name a few.

Q4: What is your dream for youth in the Arctic?

My dream for youth in the Arctic is that they get the same opportunities as those in the south. Also, that more capacity building happens in the north so youth can help other youth. I wish for northern youth to have the confidence, funding, mentorship and support to have all the ingredients they need to fully reach their potential, because they have so much.

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Go to our Web site at www.ipyyouth.org—add yourself to the discussion forums, they just got started and we want more young people taking part. The Web site is open to all young people, so add in your voice.

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