

Report of Funding Received from INAC – ERR (Yellowknife)

Conservation, Sustainable Development and Community Values Workshop October 28 – 30, 2007

Contact information:

Milton M. R. Freeman
Senior Research Scholar
Canadian Circumpolar Institute
University of Alberta
Edmonton AB, T6G 2E1
780-492-4682, 780-492-4999
780-492-1153
milton.freeman@ualberta.ca

Introduction

The purpose of the 2007 workshop was to bring together researchers based in universities, Inuit organizations and government agencies, and officials working in various relevant northern-based organizations, to discuss the past year's research findings, current concerns of northerners, and future project priorities.

This workshop was the second of three annual meetings to be undertaken during this three-year project. The researchers sought feedback from northern community and governance-agency representatives and an opportunity to meeting among themselves to discuss current actual or possible future social and environmental changes taking place.

The results of these discussions allow researchers to be aware of what is taking place elsewhere in the North and to receive guidance from representatives of our northern partner organizations, including the Inuvialuit Game Council, Nunavut Tunngavik Wildlife Department, and the Nunavut Government Wildlife Service.

Workshop participants

Nigel Bankes, Professor of Law, University of Calgary

Douglas Clark, Scholar in Residence, Yukon College & Post-doctoral Fellow, Renewable Resources Department, University of Alberta

Susan Clark, Joseph F. Cullman 3rd Adjunct Professor of Wildlife Ecology and Policy Sciences, Yale University

Ryan Danby, Post-doctoral Fellow, Biological Sciences Department, University of Alberta

Bert Dean, Associate Director and Senior Policy Adviser, Wildlife Department, Nunavut Tunngavik Inc

Martha Dowsley, Doctoral Student, Geography Department, McGill University
British Columbia

Michael Evans, Canada Research Chair in Community, Culture and Global Studies, University of British Columbia

Lee Foote, Associate Professor of Renewable Resources, University of Alberta & Chair, IUCN-North America Sustainable Use Specialist Group

Milton Freeman, Senior Research Scholar, Canadian Circumpolar Institute, University of Alberta

Chucky Gruben, Vice-Chair, Inuvialuit Game Council

Darren Keith, Senior Researcher, Kitikmeot Heritage Society, Yellowknife NT, (by telephone from Yellowknife)

Moshi Kotierk, Social Science Researcher, Wildlife Management, Department of Environment, Government of Nunavut

David Lee, Wildlife Biologist, Wildlife Department, Nunavut Tunngavik Inc.

Angela Nuliayok, Student, Grande Prairie Regional College, Alberta and Gjoa Haven NU

Gabriel Nirlungayuk, Director of Wildlife, Nunavut Tunngavik Inc

Brenda Parlee, Canada Research Chair--Social Responses to Ecological Changes, Rural Economy Department, University of Alberta
Frank Pokiak, Chair, Inuvialuit Game Council
Kerrie Ann Shannon, Assistant Professor of Anthropology, University of Alaska Fairbanks
Dan Slavik, Graduate Student, Rural Economy Department, University of Alberta
Marc Stevenson, Manager, Aboriginal Research & Networking, Sustainable Forestry Management Network, University of Alberta
Martina Tyrrell, British Academy Post-doctoral Fellow, Scott Polar Research Institute, Cambridge University (by telephone, from Arviat)
George Wenzel, Professor of Geography, McGill University (by telephone, from Montreal)

The 2007 Workshop

A full workshop report, prepared by Milton Freeman (Project Leader) with assistance from Ryan Danby and Lee Foote (workshop rapporteurs) is appended.

The research discussed at the workshop relies heavily on information obtained through standard ethnographic fieldwork methodologies (including participant observation, individual and small-group discussions, and the use of semi-structured and open-ended interviewing). Particular attention is given to local knowledge possessed by hunters, elders and other local knowledge-holders.

This multidisciplinary project began in the fall 2005, although for some researchers involved in the project, their research on polar bear hunting predates the project's start-up date. Relevant work carried out by non-project researchers and available in reports and publications contributes to our collective research and understanding of the situation. Although this project, in its current configuration will end in late 2008, a successor project is currently being developed that will continue research in related areas not fully addressed during the current project. Consequently we anticipate about half the 17 researcher involved in the current project will continue with those aspects of the current project that focus on questions of polar bear governance and policy formulation, management of human/bear interactions, and human dignity.

The current project is part of the ArcticNet program under that program's Theme 4 ("Science and Policy"). Thus our project contributes, through ArcticNet's formal reporting channels, by way of posters and both formal and informal oral presentations to ArcticNet's Annual Science meetings (at Banff and Collingwood) and technical workshops (in Ottawa and Quebec City) and through the ArcticNet Website and metadata reporting system. In addition our project posts reports and other relevant information on the project website at www.ualberta.ca/polar/conservationhunting

No fieldwork was completed with funds provided by this Contribution Agreement. However, two participants at the workshop (Shannon and Slavik) were able to hold useful discussions regarding planned anthropological fieldwork (subsequently carried out in Coral Harbour in March 2008, and planned for Sachs Harbour in September – November 2008 respectively). Ethnographic fieldwork reported at the workshop was conducted in the period 2005 – 07 in Arviat (Tyrrell), Clyde River (Wenzel), Gjoa Haven (Keith), Igloodik (Dowsley), Kimmirut (Kotierk), Kugaaruk (Keith), Pond Inlet (Dowsley), Rankin Inlet (Lee) and Taloyoak (Keith).

Northerners' involvement

The 2007 workshop was planned in consultation with Inuvialuit Game Council, Nunavut Tunngavik Inc Wildlife Department, and Nunavut Government Wildlife Service officials. The choice of location for the workshop, held at Pigeon Lake, Alberta, followed suggestions received and with the approval of these northern partner organizations. All project fieldwork is conducted with full approval of the appropriate community organizations (ordinarily the Hunters and Trappers Committees and the Hamlet Councils). As appropriate, community members are hired and knowledge-holders remunerated for their participation in the research.

As an applied social science project, the principal sources of data are the elders and other community knowledge-holders. One principal goal of the project is to facilitate the utilization and wider appreciation of

local knowledge for understanding environmental changes affecting polar bears and their habitat in order to contribute to equitable and sustainable polar bear-management, policy formulation and decision making.

Insofar as discussions were held with our northern partners throughout, fieldwork choices in many instances were influenced, if not decided, by community members advising researchers in their capacities as representatives of communities (e.g. as members of IGC, NTI, or Regional Wildlife Organizations).

In addition, discussions were held with staff at Aurora College, Nunavut Arctic College (Iqaluit and Rankin Inlet campuses) and Nunavut Sivuniksavut Training Program in an effort to achieve a degree of capacity building among Inuit youth. Unfortunately we were unable to obtain funding to carry out this aspect of our work plan. However, one Inuk student (Angela Nuliyok, from Gjoa Haven) participated in the 2007 Pigeon Lake workshop, as did one Master's student, one Doctoral student and three-Post-doctoral students.

Since this project began in late fall 2005, meetings have been held in Yellowknife (March 2006), Edmonton (October 2006) and Pigeon Lake, Alberta (October 2007) to bring together researchers and representatives from northern organizations. The Project Leader has participated in meetings held in Inuvik, Iqaluit, Ottawa, Rankin Inlet, Whitehorse and Yellowknife with Inuit/Inuvialuit organizations (IGC, NTI), northern teaching (Aurora College, Nunavut Arctic College, Yukon College) research organizations (Aurora Research Institute and Nunavut Research Institute) and government officials (CPC, GNWT, Nunavut Government, INAC, CPC).

Results

Our research objectives included collection of expert knowledge from hunters, elders, and other community knowledge-holders regarding environmental changes affecting, e.g. sea-ice and snow conditions (that might affect feeding and denning behaviour) and polar bear numbers, movements and distribution patterns, breeding, and condition/health. Such changes, over several decades, are largely unrecorded (outside of the local communities) for most of the circumpolar region, and consequently provide a necessary context for evaluating currently observed changes.

Our project's contribution to capacity building and training involved three graduate students and three Post-doctoral Fellows in the team. The training involved these individuals' participation in an international multidisciplinary team that included researchers with an anthropology, conservation/wildlife biology, environmental studies, human geography, law, rural sociology, and policy studies background.

Much of the current management concern about polar bears is based upon a natural science-generated conclusion that as sea-ice conditions deteriorates under the effects of global warming, so polar bears' ability to obtain food is diminished and the species experiences an increased risk of endangerment. From a policy-science perspective, the immediate social impacts resulting from environmental activists' and others' adoption of polar bears as a 'poster child' for their global change advocacy is a more immediate and pressing issue. The impacts being felt at this moment by community-based outfitters, guides, and other benefiting from the economic returns generated by visiting conservation-hunters, represents a level of community concern that over-shadows contested projected changes in polar bear status that may occur several decades in the future. Thus although global warming may represent an ultimate stressor, its impacts are, at this time, quite minor in comparison to those represented by a number of important proximate stressors (including, e.g., the threat of immediate quota reductions, or U.S. import bans on bear trophies, or threatened action by international/intergovernmental bodies (e.g., Mexico, the EU, or CITES). Such proximate stressors are the result, not of global warming itself, but of the political responses to a contested explanation of what future faces polar bears. Our research seeks to understand the basis of this contested understanding, one that is better understood through a more complete understanding and utilization of local knowledge that, in many cases, challenges scientific interpretations of what is currently occurring and that may refine predictions of future outcomes.

Conclusions

The underlying conceptual framework of much of our research is one that recognizes the importance of coupled complex social-environment linkages and interactions. In regard to our concern to provide policy- and management-relevant information to decision makers, we recognize the importance of drawing attention to the cumulative impacts upon society and resource stocks as they adapt to impacts resulting from changing politico-legal, administrative, socio-economic, cultural and biophysical environments.

Although this current three-year project will end at the end of 2008, about half of the current research team are seeking funds to follow several threads that, while comprising important aspects of the current project, were not the primary focus of our work to this time. Indeed, the new direction to be followed was discussed during the Pigeon Lake meeting and was further developed at a January 2008 follow-up meeting (also supported with INAC – ERR funding). At this time, new funds are being sought to convene a workshop in the North early in 2009 that will bring knowledgeable individuals together to help define a new project titled “Aboriginal Peoples, Polar Bears, and Human Dignity”. The Gordon Foundation has recently approved a \$33,000 award toward the cost of this upcoming workshop.

Polar Bear Conservation Hunting Project

Report on the 2007 Annual Workshop

Held at the Village Creek Country Inn
Pigeon Lake, Alberta

October 28 – 30, 2007

LIST OF PARTICIPANTS:

Nigel Bankes, Professor of Law, University of Calgary ndbankes@ucalgary.ca
Doug Clark, Scholar in Residence, Yukon College & Post-doctoral Fellow, Renewable Resources Department, University of Alberta yukondoug@gmail.com
Susan Clark, Joseph F. Cullman 3rd Adjunct Professor of Wildlife Ecology and Policy Sciences, Yale University susan.g.clark@yale.edu
Ryan Danby, Post-doctoral Fellow, Biological Sciences Department, University of Alberta rdanby@ualberta.ca
Bert Dean, Associate Director and Senior Policy Adviser, Wildlife Department, Nunavut Tunngavik Inc, Rankin Inlet NU bdean@tunngavik.ca
Martha Dowsley, Graduate Student, Geography Department, McGill University marthadowsley@hotmail.com
Mike Evans, Canada Research Chair--Community, Cultural & Global Studies, University of British Columbia michael.evans@ubc.ca
Lee Foote, Associate Professor of Renewable Resources, University of Alberta & Chair, IUCN-N. America Sustainable Use Specialist Group lee.foote@ualberta.ca
Milton Freeman, Senior Research Scholar, Canadian Circumpolar Institute, University of Alberta milton.freeman@ualberta.ca
Chucky Gruben, Vice-Chair, Inuvialuit Game Council, Tuktoyaktuk NT
Darren Keith, Senior Researcher, Kitikmeot Heritage Society, Yellowknife NT, (by telephone from Yellowknife) darren@theedge.ca
Moshi Kotierk, Social Science Researcher, Wildlife Management, Department of Environment, Government of Nunavut, Igloodik NU mkotierk@gov.nu.ca
David Lee, Wildlife Biologist, Wildlife Department, Nunavut Tunngavik Inc. dlee@tunngavik.ca
Angela Nuliayok, Student, Grande Prairie Regional College, Alberta, Gjoa Haven NU anuliayok@yahoo.ca
Gabriel Nirlungayuk, Director of Wildlife, Nunavut Tunngavik Inc, Rankin Inlet NU gnirlungayok@tunngavik.ca
Brenda Parlee, Canada Research Chair--Social Responses to Ecological Changes, Rural Economy Department, University of Alberta brenda.parlee@ualberta.ca
Frank Pokiak, Chair, Inuvialuit Game Council Tuktoyaktuk NT igc-js@jointsec.nt.ca
Kerrie Ann Shannon, Assistant Professor of Anthropology, University of Alaska Fairbanks ffkas@uaf.edu
Dan Slavik, Graduate Student, Rural Economy Department, University of Alberta dslavik@ualberta.ca
Marc Stevenson, Manager, Aboriginal Research & Networking, Sustainable Forestry Management Network, University of Alberta marc.stevenson@ualberta.ca
Martina Tyrrell, British Academy Post-doctoral Fellow, Scott Polar Research Institute, Cambridge University (by telephone, from Arviat) mt443@hermes.cam.ac.uk
George Wenzel, Professor of Geography, McGill University (by telephone, from Montreal) wenzel@geog.mcgill.ca

Banquet Guests

Marianne Douglas, Director, Canadian Circumpolar Institute, and Professor of Earth and Atmospheric Sciences, University of Alberta marianne.douglas@ualberta.ca
Elaine Maloney, Associate Director, Administration, and Managing Editor, CCI Press, Canadian Circumpolar Institute, University of Alberta elaine.maloney@ualberta.ca
Cindy Mason, Programs Assistant and Business Manager, CCI Press, Canadian Circumpolar Institute, University of Alberta cindy.mason@ualberta.ca
Outi Snellman, Director, Administration and University Relations, University of the Arctic, Rovaniemi, Finland outi.snellman@uarctic.org

October 29, 2007

REPORTS

Following introductions around the table and a brief history and outline of the project objectives, short reports on researchers' work and project-related interests were provided.

George (speaking from Montreal). Reported on work being conducted in Clyde River. One finding (based on a small sample) was that each dollar derived from c-h hunting generates about a \$5.50 return in country-food production.

Martha. Has just completed her PhD on PB management, with a focus on Baffin Island, and Hudson Bay. The research examined the relationship existing between sport and subsistence hunting. Brief mention was also made of a Wager Bay project, with implications for research on safety issues (e.g. sea ice, etc.)

Martina (speaking from Arviat). Conducting research on the economic and social costs and benefits of PB sport hunting. Reported that this year there were 12 PB sport hunters in Arviat (compared to 5 last year). Is examining the role of sport hunting in community life, including the “mediating” role (or relationship between) the hunt and conservation, the material, cultural and symbolic role of polar bears in the community, and the moral/ethical debate that surrounds PB sport hunting. This all leads to an examination of local hunting versus sport hunting, and the relationship existing between the two.

The lottery for polar bear tags will be held on Wednesday (Oct 31), after which Martina will join a two-day local hunt and a 10-day sport hunt.

Nigel. Reported on work “in progress”, including an analysis/characterization of the transnational legal regime for conservation hunting, together with consideration of the effects from the application of domestic (Canadian) and U.S. laws (e.g. effects of the MMPA and any ESA listing). Also, an examination of climate change interaction with various international laws, treaties and conventions (e.g. Kyoto Protocol, CITES, the International Polar Bear Agreement). Asking what are the implications of these legal frameworks for mitigation and adaptation? Common ground between these research areas is to think about the integration of different normative orders (e.g. ‘scale’ differences existing between the local, territorial/national and international levels).

Doug. He and Nigel have just published a piece in the WWF Bulletin that sparked some interest (it looked at the appropriateness of the existing national and international polar bear governance framework in light of recent political changes that have occurred in the Canadian North). His interest stems from two sources: (1), earlier Masters work on PB biology in western Hudson’s Bay, and (2) recent PhD work on the sociology of grizzly bear management in multiple locations across Canada (including in the Western Arctic and Nunavut). His current work is using the framework of his PhD research and applying it to PB management. A paper that has made it’s way through first review for *Arctic* examines the framework for PB conservation in Canada, including trends and the identification of reasons for the turbulent nature of the issue, and suggests ways for reducing conflict.

Lee. Introduced himself as fundamentally a hunter with consequent interest in this topic. He has a recently-published a book chapter, with George, on conservation hunting tourism, and recently participated in a conservation hunting conference in South Africa (part of the Society for Conservation Biology meetings). He also authored an article that is posted on the IUCN website that suggests “the sky is not falling” on polar bears, and he was invited to testify before a U.S. Senate committee on this same issue.

David. Is involved with the PB governance project Doug described and is working with Nunavut Tunngavik Inc. In regard to NTI duties, one assigned task (among many others!) is to foster better working relationships between Inuit and social/natural scientists involved with natural resource/wildlife management in Nunavut.

Moshi. Is a social science researcher with the Government of Nunavut currently working in Kimmirut, Iqaluit and Pangnirtuq on a project examining polar bears, climate change and TK. In addition to Elder interviews, he is conducting random household surveys to determine the prevalence of different viewpoints in those communities.

Mark. Several interests and projects on the go that are relevant: one involves developing a model for valuing aboriginal traditional economies, resource management decision making, and the ‘costs’ of change occurring in local communities. A second is looking at aboriginal capacity building, including “what is it?”, “who needs it?” and “how to supply it?”. The current approaches are problematic; they tend to be of a short term nature, typically ignoring longer-term strategies, and they often serve a narrow business/ economic purpose. It would be more appropriate to situate capacity-building initiatives in the context of other, broader, societal needs.

Another range of investigations are looking at Aboriginal rights and responsibilities; important to recognize that one can't enjoy rights without responsibilities. However, it seems that somewhere along the line responsibilities have "fallen off the table", so the discourse has failed. Also an interest in the effect(s) of climate change research and researchers on Inuit, and finally, examining (with Meeka Mike, in Iqaluit) Inuit concepts of land and animals, to advance Inuit concepts in order to remedy the conventional (government, science-based) concepts that poorly reflect Inuit reality.

Brenda. Her research interests not related exclusively to PB, but to wildlife and resources in general, with a current project on Gwich'in knowledge of barren-ground caribou having some common threads to PB and conservation hunting. A strong interest in local knowledge systems, the variability existing within this body of knowledge, how this knowledge is generated and constructed -- not just through observation, but also through interpretation and sharing. For example, how do these understandings become integrated and normative within the culture and the local group. Another question is whether the social rules related to harvest of a resource change in relation to the abundance or scarcity of the resource.

Dan. Beginning his research at this time, hopefully in the Inuvialuit region on PB, possibly looking at a comparison of western science and TK views on changes affecting polar bears and their habitat. He is beginning a survey among the U.S. polar bear hunters who visited the western arctic during the 2006 hunting season.

Kerrie Ann. Interests grew from the requirement that use of dog teams was required for polar bear conservation hunting. Is planning a comparative study in Nunavut and Alaska -- and where no conservation hunting occurs in Alaska -- to look at broader implications of conservation hunting, such as its social and cultural importance (e.g. the needs to provide dog food in the Canadian context etc), although the importance extends further (skin clothing sewing, polar bear hide preparation etc)..

Mike. Works on whales/whaling and aboriginal rights, and the cultural impacts of local societies being denied access to traditional hunting activities (with attendant impacts on food-culture, health etc). His involvement will likely be in a supportive role to others' working more directly on the polar bear hunting theme.

Susan. Has a longstanding involvement with research in wildlife ecology, governance, and policy analysis, particularly with large carnivores (bears, wolves, large cats). Has a special interest in integrated and interdisciplinary problem solving. In relation to the current polar bear project, she notes that the problems/issues are more of an international diplomacy nature than being strictly scientific/technical (e.g. cultural complexity presents a particular challenge in northern environments), and that there appears to be a shared goal of working towards a sustainable, viable future for Northerners and others.

Darren (speaking from Yellowknife). Has completed research in some central Arctic communities related to polar bear TK and the relationships between Inuit and polar bears, and also on climate change impacts on polar bears and their habitat. Has interest in other project-related research if funding can be found.

Gabe. There has been an emphasis in recent years in western Hudson Bay (in particular the apparent decline in that particular regional population from ca. 1200 to ca. 950 bears). This announced finding underlies the call for an ESA listing, which worries people in the North. Scientists say there are fewer, and skinnier, bears now. But if you go back to the time when the quota system was introduced in the 1960s, there was a 5 bear quota and only 2 or 3 bears were taken most years. Now Arviat has a quota of 22 (but in 2007, reduced to 15) and hunters could take that number in a single day. There is something wrong here.

Suggests the research in Churchill needs to be expanded northward, but there seems to be resistance to that idea from USGS and CWS -- he would like to see the scientists "think outside the box" and realize there is more information available than their own studies of the WH population in the same restricted study area. Hopes to see more co-operation and agreement.

Ryan. I agree there must be additional scientific work done in other locations as circumstances are different everywhere and results from one location aren't necessarily applicable everywhere. However, long term scientific datasets are extremely valuable (in this case, decades of data from western Hudson Bay) and it would be foolish to

abandon this at the expense of a single year or two's worth of data somewhere else which wouldn't tell us much at all.

Bert. NTI has argued to have a voice at all types of meetings. There is an urgent need for Inuit that know the issues being the representatives at these meetings. Also, need to deal with administrative needs and have consistency in representation at meetings. The question surrounding how to best bridge the gap in credibility between science and TK is paramount; at this time, science is the accepted standard. There is an issue re. people not being on the land as much as they were in the past, so knowledge is being lost, and capacity building remains an important concern. We believe it is important to keep networks like this current project active.

Frank. Shares the concerns expressed about scientists' work in Nunavut. Some things being reported by scientists have always happened, they are not necessarily 'new' (e.g. drownings, skinny bears, cannibalistic feeding), but are being reported for the first time by scientists. Western Arctic people object to collaring bears, and concerned about eating meat of bears injected with tranquilizer drugs. Concern also being expressed about changing of the South and North Beaufort population boundary, quota changes, and television programs showing scientists working with polar bears and behaving in disrespectful/offensive ways toward bears.

Chucky. Shares the concerns he just heard expressed. As an outfitter himself, he wants to say they are not just out to make money, they are concerned about teaching hunters about the land and its people, and the changes taking place in the North.

Moshi (wearing his Nunavut government hat). The Department sees its involvement in the polar bear conservation-hunting project as a way to facilitate incorporation/use of TK in polar bear management and "not get criticized for it". They want to see Inuit involved in decision making, and the project provides opportunities for achieving this.

Milton (concluding comments for the research reporting session). In early discussions with our northern partners, it was always understood that this was to be a North – South research partnership, one in which we hoped to pay attention to capacity-building. Unfortunately we were unsuccessful in securing funding for capacity-building, it seems there is more money for research than for an adequate mentoring program, so our funding has been directed to research and communications (including meetings where face-to-face discussions can occur). There is some urgency in bringing the project to a satisfactory conclusion because after three years people begin moving on to other work; before that happens we do need to produce a 'deliverable', an end product that makes a useful contribution. In this regard we should consider how we can achieve that goal, perhaps producing a report that aims to make a difference (not just in an academic sense, but by reflecting an applied, or policy, focus).

GENERAL / OPEN DISCUSSION

Lee. It would be good to try to arrange exchanges between students in the North and the South. There is likely a need for training so that people in the North could most effectively present the issues of concern and their viewpoints to the media. In regard to the media, we should aim to generate some media releases from the group about what is happening from a local/northern perspective. A question: with regard to the TK issue, why do communities and government/northern institutions continue to aid (license) researchers who do not use or respect traditional ways of knowing?

Mike. A question: there was a comment that there is possibly a shift in bear distribution patterns, rather than a change in absolute numbers. Has there been a study about this?

Gabe. For the Gulf of Boothia there has been a scientific estimate that bear numbers have dropped from 700 to 300. COSEWIC classifies all Canadian PB as one population, which Inuit like.

Mark. Inuit knowledge has been criticized by scientists and people who listen to them. The purpose of applied social science research is not to debase scientific knowledge. But, we owe it to the Inuit to assess the full picture and question the assumptions that lie behind the creation of the scientific database.

Susan. Experience shows there are pitfalls and traps in any such approach, and we must avoid these. There are very important issues at the heart of our conversations that are not just limited to PB and TK, but involve values and

culture. Therefore we must not be drawn into a discussion that is just focused on polar bears and their management. We need to be aware of the politicization of science that takes place, and avoid the traps that exist at the margins of the issue. This is not necessarily a situation of two sides arguing against each other; there is the risk of confusing the symbology, the politics of the debate with the real/fundamental issues that are at play.

Lee. I am still curious as to why local interests, who have been most supportive of scientific investigations, continue to assist the players and studies that ultimately are used to discredit or silence Inuit voices. One is reminded of the school of thought that holds that “one must create a crisis to effect change” -- this seems to be happening to some degree with wildlife studies. It could be informative to identify the various group positions in relation to their (self) interest.

Frank. Surveys in his region showed abundant bears, then in the 3rd year of the surveys there were no bears, so a red flag was raised. But the Roman Catholic priest in the region had recorded interviews that show that rises and falls in polar bear populations had happened in the past, and so what was being seen was not a recent phenomenon. We can talk about TK all we want, but they (the government) really don't want to use it because it's not written down. So it is seen as lacking credibility.

Ryan. This is a critical issue -- perhaps the most critical issue from an applied, managerial perspective. It is not limited to polar bears, but applies to all resources. There is a real need for some work directed specifically at this issue, it presents a real opportunity for a truly integrative project to be developed around this, but it must involve people from all sides of the issue. I think polar bears would be an excellent example, but two or three other resources should also be studied to develop a comparative analysis. Isn't it a little simplistic to suggest that all Inuit feel the same way about everything? If we are committing ourselves to a highly contextual perspective, how can we assume that all communities, even all individuals, feel the same way?

Milton. The TK issue was discussed at our meeting in Yellowknife last year and we undertook to work on that challenge as social scientists so that TK will be taken more seriously in the decision-making process. So we held a roundtable discussion, involving social scientists and polar bear biologists, in Edmonton last fall and decided it was useful to move the discussion forward to later meeting. We understand that the NWMB is planning a conference on TK, so maybe we can tie into it.

Gabe. The NWMB are thinking about such a conference, but other issues are taking precedence and it's now on the back-burner.

Mark. We're really talking about two things here: (1) working within an existing framework. The rules of the game are set, so how do we put Inuit knowledge into the existing framework in the short term. (2) Changing the framework, changing the rules of the game altogether. This is perhaps more in the longer term.

Doug. In the policy paper we submitted to *Arctic*, we identified four distinct perspectives, each quite different from the others. The problem is that there is no way for all the views to be heard because “the rules privilege one definite perspective”. It seems prudent, if trying to change the existing framework, to start small scale, start with a manageable strategy, say by identifying common ground and starting there.

Susan. If we can take TK and package it in a way that makes it usable, we should do it, but we shouldn't put too much hope in it since it cannot be transformed into a positivist perspective that underlies the existing science-based framework.

Lee. When there is Inuit membership on the Polar Bear Technical Committee it will be apparent that there is headway. We hear the suggestion about revoking research permits if TK is not considered, or making TK a condition of obtaining a research permit.

Frank. Those options certainly exist.

Susan. We should all be aware that the assumption that western/positivist science influences policy is, in reality, false. There is merit in tying renewal of research permit to a demonstration that indigenous knowledge is being used in research. Who are the three most important decision-makers we need to influence?

Kerrie Ann. We need to be wary about using terms like indigenous knowledge – there is ‘knowledge’, perhaps emphasizing two different forms of knowledge affects the outcome of joint discussions.

Susan. There is another – and well-documented – trap that relates to accepting the assumption that you have to carry out positivistic (that is to say, conventional, western) science if your work is to be acceptable to policy-makers and/or decision-makers. This linear thinking doesn’t work all the time (although it may work in courts of law). If seeking to deny research permits to research that does not include TK, it would be best to make a counter-proposal, one that allows issuing a provisional permit that is conditional on incorporating TK in the project. The key point of that strategy is to use leverage to enlarge the existing framework, including discussion and the existing power-relationship.

Bert. There was originally an assumption that the Nunavut government was going to be friendly towards the use of TK, but the opposite has actually occurred. The capacity has actually been lost; Inuit continue to voice their concerns about the intrusive nature of research (e.g., collaring, tattooing and drugging animals) but oftentimes these community and regional groups’ concerns have been over-ruled by the Minister. A new government means we are seeing and having to work through growing pains.

Another point is that most scientists don’t want to share unpublished data, so why would Inuit want to share TK? Maybe video could be used as a medium for communicating the nature of the disagreements, as well as communicating TK itself. Several examples where this has been done exist (mentions a recent film about fishing in Nova Scotia called “In the Same Boat”); there exist competent Inuit filmmakers.

DIRECTED DISCUSSIONS

A. ESA LISTING

Susan. Re the proposed ESA listing: remember, “nothing is ever final”, a listing is very open to negotiation, as a recent review of 30years of ESA listings demonstrates. At this time it is impossible to predict what will be the outcome of the polar bear ESA listing, as those decisions are largely based on politics, not on data. However, she doesn’t think that we should assume the “worst case scenario” if listing does occur, and it is possible that a listing of polar bears as “threatened” will allow it to be hunted.

In the U.S., the courts play a very active role in ESA listings; e.g., Safari Club International has had many court battles over listing certain species, including grizzly bears, and these cases go on year after year.

Milton. We are aware that Conservation Force (a U.S.-based conservation hunting NGO) certainly plans to use the courts to challenge any polar bear ESA listing. A question: is there a concern among Inuit regarding Canadian legislation and regulations -- e.g. a COSEWIC or SARA (Species at Risk Act) uplisting?

Gabe. NTI and Inuit in general are against a polar bear listing under the ESA, or under SARA. The basis of concern is the prediction being made about the condition of sea ice 45 years into the future. Given the reliance decision-makers are placing on such predictions, we believe it is irresponsible to list the bears at this time. We believe science as well as TK backs us up on this point.

But we fear a reaction against the quota system may occur if the species is listed (or even if more restrictions are imposed). We have a quota system in place that has been working for 40 years now, so we fear that listing based on questionable science might result in hunters saying “forget the quotas -- let’s go hunt them while we have them”.

Moshi. The Government of Nunavut also opposes listing polar bears under the ESA, and agrees that an ESA listing would not be beneficial to the currently-effective management of polar bears in Nunavut.

Frank. The Inuvialuit sent representatives to the FWS public hearings held in Anchorage to oppose the ESA listing proposal. The Inupiat support the Nunavut position and also oppose the listing.

Doug. What do the Inupiat say about the listing?

Gabe. We believe the Inupiat are divided on the issue, in part because of confusion and involvement in other MMPA issues (related to bowhead whaling?), while Inuit in Canada are generally united. There is no sport hunting of bears in Alaska, and Inupiat are not allowed to sell their subsistence quota.

Frank and Chucky. There are rumblings being heard about continued compliance with quotas, some ask “Why not just continue harvesting?” People will continue hunting, whatever the ESA decision.

Martha. One possible negative associated with a hunting ban would be ending discussions between jurisdictions (currently required where deciding allocations across jurisdictional boundaries). It might be useful for researchers to determine how hunters have found out about the Nunavut sport hunt -- so that the economic connection might be strengthened to withstand the impact of an ESA listing.

Chucky. If we go back to only subsistence hunting, there will be a big impact on people resulting from income loss.

Doug. It sounds as though there are a number of unintended consequences of an ESA listing. As a group we should document these concerns.

Milton. Foreign sport hunters also come from other countries, not just from the U.S. An irony of having a reduced quota is the consequent increased interest in hunting the species.

Bert. Even in Rankin Inlet (not a major hunting community), when the quota restrictions were announced, all the tags, for polar bear and muskox, were suddenly all used up.

Martha. It is likely (in the event of an ESA listing) that there will be exportable and non-exportable polar bear populations. A lot will depend on the wholesalers (who supply the hunters to the outfitters in the communities), so we should be aware of the non-U.S. hunters who are likely to be the ones affected by a listing.

Lee. An ESA listing does not mean no hunting, if the MMPA restrictions can be kept at bay.

Mark. A question: there is an emphasis on research related to formal institutions of polar bear management, and until now they appear to be working well. Is there any work (now or in the past) on informal institutions of Inuit (community-based) management? Why does the informal system work so well, and how do the two work systems work together?

David. There has been little work done on informal management, or adaptive/community-based management -- but informal institutions exist; e.g., there is discussion on the radio when cases such as of wastage of wildlife come to light. It seems to be an important component of Inuit systems of wildlife management but is not readily recognized by hierarchical institutions.

Moshi. In some regard the informal aspects are actually formalized in the land claim agreement and given expression through the HTOs, since it's the HTO board members that tend to be the one's doing the scolding. HTO board members tend to take their responsibilities seriously. However, I am unaware of any Nunavut HTO that made a submission regarding the ESA issue, even though the media mentioned that input was being sought.

Bert. An Arviat outfitter (Ryan St. John) did send in a submission. HTO's sometimes take back the sport hunt allocation from outfitters, and act as the community outfitter. And many communities allocate no tags for sport hunters, using them all for subsistence hunters.

Brenda. I'm very interested in this informal management system, especially how it varies over time and under conditions of both resource scarcity and abundance. What is the situation in the Inuvialuit Settlement Region regarding this exercise of community-based respect (management)?

Frank. There are restrictions on hunting polar bears with cubs, and hunting bears in dens is not allowed. These are HTC/community bylaws, together with a requirement to record data from the hunt (such statistics, sex and condition

of the bear) and returning an unused tag on time, and if not followed, a penalty is imposed. They are beginning to follow this lead in Alaska now, regarding restrictions on taking mothers and cubs, and the U.S. is talking to the Russians about their hunting rules.

With respect to the quota system, we've had quotas for a long time, but experience shows that this hasn't meant that people go out and maximize their harvest, in fact quotas have only been fully taken about twice in the past 15 years.

Gabe. Worries about “big brother” setting regulations since locals are quite capable of managing the resource. The historic over-harvesting of polar bears in Alaska made people think that the same was happening in the Canadian Arctic too – but it was not. In the case of Peary caribou hunting, the hunting restrictions were originally put in place by locals, not by the government. So, I believe that management should be entirely locally based.

Moshi. In the past, some people or communities might be motivated out of fear. For example, when out hunting, if you encounter a mother polar bear with cubs and the mother runs off, some people have said that you must not kill the cubs or the mother will return and kill you. But I don't know if that then means that if the mother stays with the cubs, it was OK to harvest them all.

Martha. If we compare the NWT with Alaska, we see so many disconnects between hunters and government on the Alaskan side. In the 1970s the state and hunters came to a good agreement, but MMPA basically destroyed that system. But since the Inuvialuit-Inupiat polar bear agreement has come into operation, the Alaskans have again introduced a workable polar bear management system.

Dan. Is there any concern that other nations might follow with import bans if the U.S. lists polar bears under the ESA?

Milton. Yes, this could be problematic, especially since environmental groups such as IFAW and HSUS/HSI have significant political clout in Europe (as they are demonstrating in the case of Canadian seal import bans right now).

Lee. There is a possibility that a “loophole” could be formulated to ensure continuation of the sport hunt even if an ESA listing occurs. This has worked in the U.S. for grizzly bears and wolves in that they were listed in the lower-48 states but remained a valued and hunted big game species in Alaska.

Mike. Co-management has been successful it seems, but the top down approach may begin to “rear its ugly head” and threaten the successful foundation of co-management that has been built. But co-management, even if not perfect, does demonstrate the abilities/willingness of user communities to take responsibility, and this success counters many claims reported in the media that top-down control is the only way to go.

B. International Agreements

Doug. Nigel and I are looking into the international polar bear conservation framework. It offers a good example of how a particular institution (the IUCN Polar Bear Specialist Group) can unilaterally decide and proclaim what constitutes “valid” science – to the exclusion of social science and TK. How can TK/ Inuit Knowledge, be inserted into such governance institutions? Governance involves a hierarchical set of committees that relate to a horizontal agreement. However, there may be room for another horizontal connection, e.g., in addition to the PBTC [which is currently composed of polar bear biologists], maybe there should be a another committee created to ensure Inuit knowledge informs the work of the PB Administrative Committee [which currently receives it advice solely from the PBTC only].

Milton. IUCN typically highlights failures of species management or conservation programs (by means of its Red Lists). There has been a proposal to develop a “Green List” that would highlight “good news” stories (e.g. where recovery plans have been successful or over-use is avoided, e.g. through informal/local systems). But there would be opposition from many quarters: ‘bad news’ stories get more media attention, political and financial support than do ‘good news’ stories.

Lee. This was an interesting proposal, and follows on the U.S. version of adaptive harvest management where broad categories (Red = protect, Yellow = caution, limited harvest only, Green = secure, liberal harvest allowed), but there

are several problems. Having a Red, Yellow and Green listing system might be possible, but it may actually backfire.

Doug. It is clear that the CBD [the NGO that petitioned the US FWS to list the polar bear under the ESA] selected an alarming polar bear story and received massive media coverage.

Brenda. Agrees there are huge incentives for biologists to make things look worse than they actually are. So perhaps we need some disincentive to limit overly fearful stories appearing.

Bert. There is some concern out there that polar bears will be killed if the existing incentives to conserve them are removed.

Doug. There were cases of grizzly bears being indiscriminately killed in Alberta, where the issue became “bears vs. jobs” and grizzlies were hunted down as they were seen to be standing in the way of a proposed mining development and the jobs the mine would create.

Gabe. COSEWIC is looking at what species to list next year, they are prioritizing candidate species at this time. As a result of new survey data that showed a bowhead population increase from 300 to 10,000, they have downlisted bowhead – from ‘endangered’ to ‘species of special concern’.

Bert. The new estimates originated from community-based surveys in Igloolik that recorded photo-IDs, identifying changes in distribution, documented upward population trends etc, which led to government interest and larger-scale aerial and boat surveys.

Mark. Any lessons from the Arctic bowhead whale situation? Are we repeating experience there, just with a different animal?

C. SOVEREIGNTY ISSUES.

Mike. It is a national value to take care of Canadians wherever they live. Thus there is the basis intention to ensure Inuit are satisfied with their place in confederation. So resource governance should be made effective and equitable in the North.

Doug. Rather than asserting sovereignty through militarizing the Canadian Arctic, another proposal, in a recent editorial by Sabine Jessen in the *Globe and Mail*, is to adopt a marine protected areas [MPA] approach (e.g. by setting up polar bear protection areas) as a mechanism for sovereignty assertion. Such areas are also flexible with respect to resource use by local and aboriginal peoples, and due new Canadian legislation, provide for much more local involvement in governance than has previously been the case for other protected areas and parks..

D. CLIMATE CHANGE

Milton. Climate change and polar bears are firmly linked in many peoples’ minds at this time. Our primary funding source, ArcticNet, is focused on climate change impacts in the Arctic; consequently, as a group, we are expected to focus attention on climate change and its role as a driver of diverse environmental changes. Social scientists understand the term “environment” more broadly than just the bio-physical milieu, to include the institutional environment – including social, economic, cultural etc variables – and also to understand it through the lens of indigenous epistemologies rather than by western scientific positivism alone.

There is a lot of fear being expressed, in the North and elsewhere, regarding the ability of Northern peoples and the biota to adapt to the changing conditions. But there are also opinions expressed that the alarmism is unjustified, and adaptation to change will occur and catastrophic outcomes avoided.

Gabe. From my father’s perspective, Inuit have seen changes before, they are nothing new. Our oral history goes back to the Little Ice Age. We see a lot of concern expressed about the polar bear, but we must not forget the impacts on people too.

Ryan. Climate always changes, no one argues this. What is different, however, is the rate of change and the future ability of society to adapt to such a rapid change given that communities are more permanent than in the past.

Moshi. I have been asking people about their observations, and local knowledge does say that changes are occurring. But people don't seem too worried about what they see happening.

Mark. Need to be conscious of the effects of our research on people. We also need to devote some resources to understanding the social impacts of climate change.

Gabe. Hunters want real information on the ice; some areas no longer freeze over as entirely as before. There is a need to get information out to people about ice safety and ice conditions. This is where science can help.

Brenda. I am interested in the impact of media on the public perception of Arctic climate change conditions.

Ryan. I had the experience of the media sensationalizing a climate change account that I gave them.

Moshi. Regarding peoples' concerns about climate change, some are actually worried. They can see change occurring, but they are also influenced by what the media reports. They tend to be heavily influenced by what the media report.

Dan. There is an incredible potential to use the media. But "don't hate the media – BECOME the media!". We should continue to provide the media with information so they can report all sides of the story.

Mike. Web-based presentation of interviews with local knowledge-holders would be very easy to do and would have a very high impact. It's a good way for making TK accessible to a large number of people.

E. CONFERENCE

Milton. We need to discuss a fitting conclusion for the polar bear conservation hunting project, possibly a conference that might bring our work together in a public setting in late 2008 or in 2009. We need to begin thinking about such issues as what form it will take, who we need to invite, whether it should be national or international, held in the North or elsewhere, and whether it could be arranged in conjunction with some other appropriate event to maximize attendance opportunities.

Gabe. Nunavut is due for a symposium where all HTO chairs are invited. There hasn't been such a meeting for some time now, so the timing might be appropriate. Possibilities might be to hold the meeting when some festival that attracts regional visitors is taking place -- e.g. Toonik Tyme in Iqaluit in April – at which season similar festivals are also being held in Rankin Inlet and Cambridge Bay.

Bert. There is a lot of flexibility as far as NTI is concerned. There is a need for the NWMB to convene a symposium; that would involve southern researchers and allow people a choice of sessions they could attend. The NWMB wants to hold a Nunavut-wide symposium, and if it occurs we should join with them.

Lee. We need to think about the capacity of the community to absorb all those attending a meeting. Churchill would be able to accommodate a large group. But need to stay away in the October – December period and also in July. September is a dead time. It would be good to have visiting researchers teach a class or two in the local schools while in town.

Frank. Tuktoyaktuk has its jamboree in April. That would be a good time to meet. The travel cost would be about \$1400 for travel from Edmonton to Inuvik, then take a van across the ice road to Tuk.

Dan. Is there a possibility of piggy-backing on the polar bear specialists' group meeting? That way, those people could attend.

Doug. Churchill could accommodate the meeting. It would get a very broad range of reactions to it -- from strong support to strong opposition and everything in between.

Lee. Opportunities for outreach should be considered, no matter where the meeting is held.

Frank. The best time for meeting in Tuk would be April, to tie in with the jamboree.

Milton. We will need to consider joint presentations/talks to cut topical redundancy. Also need to consider a publication product.

Doug. Could the conference include biological research findings?

Milton. There's really no fixed view at this time.

Moshi. A NWMB tie-in would be good; we could work with them in hosting it.

Lee. A "state of the art" approach would be good -- where several presentations provide basic frameworks and contexts for presenting discrete topics of concern, e.g., the ESA issue, economic value of PB sport hunt and subsistence hunts, etc. A conference title such as "The ways to know the polar bear" would generate a lot of interest.

Milton. With regard to funding such an event: ArcticNet won't fund it, so we need to find other sources of partial support; perhaps the Nunavut government or the Gordon Foundation. While speaking of funding needs, we also require fieldwork to be carried out in three communities where polar bear subsistence and especially conservation hunting is important: Coral Harbour, Resolute and Grise Fiord. Kerrie Ann is seeking funds to visit Coral Harbour and we will see what we can contribute from Canadian sources. The other two communities will be especially hard hit economically if conservation hunting is limited by an ESA/MMPA listing -- which is ironic as these are likely the two communities least likely to see any decrease in polar bear population numbers for the reasons causing the listing.

Gabe. Re climate change: a picture says a thousand words. We see polar bears, pictured in summer, standing on a small patch of ice. People think "Wow! They are losing their habitat!" There is no explanation that the picture is the normal situation for polar bears at that time of year. We need to be more effective in telling people the sky is not falling. This conservation hunting project group can truthfully and honestly say to the public that things are not so dire in the Arctic.

Milton. There are good ways to do this, and one such example is the Seals and Sealing website (www.sealsandsealing.ca) where information that counters misinformation and alarming speculation is posted and readily accessible to the public, journalists, teachers and students.

October 30, 2007

BRAINSTORMING SESSION

David, Doug, Lee, Susan. We must be aware of falling into 'traps', e.g., the local knowledge vs. professional knowledge [or TK vs. Western Science traps], or the social science vs. natural science battles. We need to get to the highest level of strategic, yet practical thinking possible, rather than resorting to the safe and tactical within the bounds of existing thinking and institutions. We need to set goals for ourselves, one being to improve the current situation in practical and policy terms.

Milton. Strategic question needs asking: what is the 3-year output of the project? What is the final product, the deliverable(s) – to our partners/collaborators and sponsors? If we are thinking of a conference and/or a book, there could be several policy threads involved:

- (1) What do we understand by the term 'conservation hunting'? (the social, economic, cultural, conservation benefits, its role in sustainable development, etc).
- (2) CH and the Polar Bear issue (the political/ ideological dimensions, the charismatic megafaunal/symbolic issues, etc)
- (3) Local Knowledge (its role in environmental research and understanding, in co-management, in wildlife policy/program development, etc)

- (4) The policy questions (re governance/management, understanding/mitigating conflicts)
(5) The economic questions (various transformations, e.g. subsistence/commodity, emerging/encouraging entrepreneurship, resulting community conflict generation and resolution, etc).

Susan. What can we tangibly end up with here, at the end of the morning, lets be realistic? Re David's comments about trying to advance the benefits to, and the situation of, the Inuit: should that be the target? Each of us comes from a unique perspective, so we should talk about what we each might contribute to the goal.

Lee. Narratives are our strength and compatible with our values, and important because our goals are not well-suited to quantitative analysis.

Susan. This is mid-order theory, and we need to look beyond that to higher order understanding, in the common interest.

Mike. Thinking strategically, it is not really about polar bears -- it is about people, about human dignity.

Susan. It is indeed about people and what we value. People have different perspectives (values), and make demands in value terms on each other and themselves. There are situations/locations/arenas wherein these value interactions occur focused on different problems, as actors see them. Some situations amount to crises. There is an ecological component in this case to be sure, particularly polar bears. However, this is only part of the story. The Inuit values of importance to them include respect, skill, enlightenment and more. We all use different strategies (political, economic, bullying, power etc) to get results (outcomes) we want. Such dynamics are the stuff of human social interaction and management policy decision-making.

Decision-making as a process is what leads to outcomes. In reaching results, we need to consider the justification of selecting only a narrow focus on polar bears or even a broader focus. How do we chose (select) our particular focus of enquiry, the means of working through (implementing) our work, and evaluation of our work, as we go? We need to consider the long term effects on society, cultures and institutions.

Lee. There may be some opportunities to investigate previous U.S. actions' effects on other marine mammals, e.g. narwhal, beluga, other whales, seals, walrus.

Susan. The shorthand goal of all public issues is respect for human dignity to put it in functional value terms. People want to be free to participate in those value processes of social interaction and decision-making that affect them

What has happened in this case? Why have events unfolded in the way they have in recent years? What does the future hold? The projection of future events and process must be evidence-based (empirically-derived), so we need to identify trends taking place – especially positive trends (e.g. implementation of land claim agreements) and reinforce them. Those who define the problem in narrowly negative (polar bears and sea ice/"the sky is falling") terms are examining only a very small part of the actual situation and human dynamic. We need to strive to be fully contextual and problem oriented.

Lee. Conflicts may have resulted along the way, but the creation of Nunavut is heartening. On the other hand, some losses have occurred (threats to sustainable use/markets for narwhal, seals, walrus, beluga products). We have to be very cognizant of our biases and perspectives. Biologists are not strongly contextual, not problem oriented. The world is outside, but the pictures are in our head.

Milton. The PB example is such a classic case; biologists have identified an association (between polar bears and sea-ice) and see it as causality. Thus less sea ice leads to loss of feeding opportunities → loss of condition → reduced recruitment → smaller population → endangerment → extinction. This view has been widely accepted and more and more research is conducted, based on these assumptions, leading to a widespread sense of inevitable crisis (the sky is falling for polar bears). We have to broaden the discussion.

Susan. The media is complicit in this process too.

Dan. In regard to the polar bear/climate change issue, the discussion could be framed in a post-colonial/cultural imperialistic/post-carbon perspective.

Mike. I have written a paper on whaling showing how cultural imperialism is tied into climate change policies in general.

Susan. One of my research projects just now is watching how different disciplines conduct their work, including social ecology and post structural anthropology. It is best to avoid linking our work to specific disciplines. If we can avoid that, we invite more participation in the discussion and encourage more people of diverse backgrounds to try to recognize the values and process issues that we are trying to address.

Mike. Maybe we should argue this from a broader view, and avoid using a specific disciplinary perspective. We need to clarify our standpoint, but say where we are arguing from.

Lee. There is safety in numbers, safety in taking a multidisciplinary approach. Also, this PB situation is unfolding so rapidly that whatever book we write could be out of date before publication. This might be another good reason for not focusing on the PB alone.

Martina. There is a lot of overlap in our perspectives, but we do vary in our disciplines.

Lee. Do we invite papers from project members and then compiled them into a book? Or do we decide and plan on writing a coherent book that follows an agreed-up plan of action? I am worried about the time lags if we await journal article publication.

Milton. Seeking permission to reprint journal articles in a subsequent book may not capture all the work done (permission may be refused). Possibly a book with 4 or 5 sections with chapters within each, and each section containing an introduction outlining the section's content/purpose. The book to have a concluding chapter highlighting the important conclusions to be drawn from the project. In that regard, Mike and I (and a dozen others) each had stand-alone essays on Tongan whaling, with a concluding chapter by the IUCN-SUSG program chair (Marshall Murphree) that drew attention to policy-relevant findings. The report was written (in plain English) to inform parliamentarians, bureaucrats and the interested public in Tonga, to fuel discussion and (hopefully) to bring about change.

Susan. Strategic decisions have to be made. Two possible strategies on getting a group of people to work together on a book project: (1) invite individual contributions to write their piece, and then someone integrates the contributions in summary chapters, or (2) have contributors work in 2-3+ person groups, as if they were playing their part in a larger symphony. This requires them to keep the big picture in mind all the time. The latter requires more work from authors.

A possible title: "Inuit, polar bears and human dignity in a changing environment: how to understand and act upon large scale environmental problems." There are many other titles that get to what we are trying to do. Those of us not qualified to speak for the Inuit can still talk to the overall management and policy issues.

Doug and Susan's suggested book outline proposal includes 5 sections: This is very rough and only preliminary. No doubt all this will change many times before we settle to something what will really work for us.

1. **Introduction.** Goals, emphasizing the underlying human dignity question, layers of goals, the standpoint of a group of researchers with different voices/diverse expertise and consequent areas of agreement and disagreement. Disciplinary histories and our collective standpoint/group identity and our hopes of what we will accomplish.

2. **Methods.** Policy Sciences approach described.

3. **Case Studies.** Introduction to the section introduces the chapters, and a plain English summary for decision makers and the broader public concludes the section.

i. The common narrative we will be addressing (exemplified by PBs, whales, seals, elephants etc)

- ii. Western Hudson Bay PB story
 - iii. Components – provisional labels for sections to look at trends and conditions that influence the overall issue
 - iv. Dynamics – Institutional, cultural, ecological changes and the amount of cross-scale dynamics. Want to build in projections about where they are leading.
 - v. Summary
 - vi. Trends.
4. ***Implications, Recommendations and The Way Forward*** (prescriptive options)
5. ***Summary and Conclusions***

As appropriate, Inuit scholars should be invited to co-author chapters.

Milton. Such an approach addresses the legitimacy questions, since the case studies could be written with a large amount of direct quotations from knowledge-holders.

Susan. We should publish with a prestigious press. Although we need not overplay that point, it would signal to the readership that we have a very large combined body of relevant/reliable information to report on and the Press recognizes it by their support.

Doug. We can learn from the book “Breaking Ice”. It is important the book be made available to Northerners.

Milton. Indeed; we can’t just take info and build careers in the South. There might be government support for an effort that aims to inform Northerners and government decision-makers.

Susan. We need to think about the target audience(s), maybe including a highly accessible public product. But one can envision several (3-5?) audiences, including policy makers, so we could include “4-page policy briefs” throughout. Volume should be distributed worldwide.

As well, we might try for a 1-2 page article might appear in *Science* or *Nature* wherein we lay out our view of things. Finally, we want to advance theory and practice to support human dignity, to the extent that we can.

Dan. We do want to inform and educate particular audiences, including policy makers, and try to influence scientists to use more IQ, the general public, and northern communities. What about appendices, with a short teaching manual that gives instructors a curriculum on how to approach this issue. Or ... perhaps posting all/some of this on-line.

Martina. There is an urgency to write quickly, and maybe skip the refereed publications.

Susan. We need funding, and possibly an advance from a publisher or government. A project of this scope and nature needs money for some coordination, meetings. A foundation is the most likely source of resources.

Milton. We cannot continue with ArcticNet for funding as its focus is on funding northern fieldwork. So this publishing activity requires looking elsewhere for funds. There are foundations that might be interested in seeing a synthesis/publishing undertaking following the 3+ years of fieldwork. Time is pressing – peoples’ lives are being affected by what’s happening. Within a month, we should have a proposal to go.

Susan. We can try to fit this into a larger social dynamic. The other theme is a timeless overview kind of product, so that relevance/shelf life is longer.

Darren. Now is the time for someone to take the lead, produce an abstract and description, and decide on a deadline.

Doug. There is a palpable energy in the room and momentum.

Martina. The PB is a powerful symbol for many, the issue is relevant and similar to beluga issues. This will be representative of other issues, globally, as well. The PB is a hot topic at the moment; hopefully this will be useful not only in the shorter term, but also in the longer term.

Mike. An article in *Nature* or *Science* Article could set this project up nicely.

Milton. Let's move quickly. Lee and Milton will collate draft of our text today and get responses. Can we strike a small *ad hoc* working group to move this proposal forward and then send it to the group for comment?

Martha. We should also think about organizing the paper for *Science* or *Nature*.

Susan. We have some resources and immediate objectives at this point: Lee's 17 pages of general notes on our discussions; Doug, Susan, Milton and Lee will be here this afternoon to discuss the proposed book and work toward producing a 3-4 page synopsis; and beginning work on a 2+ page 'Policy Forum' article in *Science*. Susan will work on the policy aspects of the *Science* article and get input on the PB specifics.

Doug. Offers to take the lead on the Policy Forum piece for *Science*. It will have a long list of authors (the group members can sign on or opt not to, but not slow down with editing).

The Group. Everyone agreed to contribute to the article.

Milton. The outfitters are not well represented in the current scheme of things. However, Dan plans to hold a workshop to bring the Inuvialuit outfitters to a central place in the Inuvialuit Settlement Region later next year. It would be nice to obtain funds to interview Nunavut outfitters in a similar workshop.

Scroll down.....



Standing (left to right): Bert Dean (Rankin Inlet NU), Nigel Bankes (Calgary AB), Susan Clark (New Haven CT), Brenda Parlee (Edmonton AB), Dan Slavik (Edmonton AB) Mike Evans (Kelowna BC), Kerrie Ann Shannon (Fairbanks AK), Gabriel Nirlungayuk (Cambridge Bay NU), Martha Dowsley (Montreal QC), Marc Stevenson (Edmonton AB), Moshi Kotierk (Igloolik NU), Doug Clark (Whitehorse YT), Ryan Danby (Edmonton AB). Seated (left to right): Lee Foote (Edmonton AB), David Lee (Rankin Inlet NU), Milton Freeman (Edmonton AB), Chucky Gruben (Tuktoyaktuk NT), Angela Nuliyok (Grand Prairie AB/Gjoa Haven NU), Frank Pokiak (Tuktoyaktuk NT).

Appendix: Meeting Agenda

**Polar Bear Conservation-Hunting Project Workshop
Village Creek Country Inn, Pigeon Lake, Alberta**

October 28 – 30, 2007

Meeting Agenda

Sunday, October 28
6.30 pm. – 9.00 pm:

Fireside Room
Reception

Monday, October 29 Spruce/Diamond Willow Meeting Room

9.00 am:

- 1) Opening remarks re meeting arrangements & introductions
- 2) Brief (5 minute) introduction to the project
- 3) Brief reports (each 5 – 7 minutes max) from (some) researchers
- 4) Brief comments (7 minutes max each) from northern partners/collaborators
- 5) Open discussion on the information presented

Noon – 1.15 pm: Lunch

1.15 pm: Open Discussion: Looking ahead.

- 6) What needs to be accomplished as we enter the third year of the project and move to the final year 2008 (2009?)

Specific concerns and priorities we need to consider, include:

- Polar bear c-h and the proposed Endangered Species Act (and COSEWIC, SARA?) listing(s).
- Are polar bear governance arrangements out-dated (cf. 1972 International Polar Bear Agreement with IUCN-PBSG membership, and Canadian management arrangements also from the early 1970s)?
- Is the role of Inuit knowledge/IQ in decision-making adequate at this time? What can we do to help improve the situation?
- Government concerns about Arctic Sovereignty: can the project contribute to this issue?
- The climate change issue: what can we contribute (Inuit knowledge re polar bears' adaptation to environmental change and the part played by social and ecological adaptation more generally? Other contributions?)
- Effective outreach & communication of findings.
- ArcticNet: Project funding ends March 2008. Shall we:
 - Seek project funding project for 2008-09?
 - end current conservation-hunting project in 2008, and propose a new project with (some) related objectives, researchers, and partners?
- Organize a conference in 2009 to present the c-h project findings and publish this as a final report. If so, we need to consider the best way to proceed, including deciding when and where to hold the conference (in the North, in Ottawa, or...) and appoint a small organizing committee to look at:
 - Whether to invite knowledgeable speakers from outside the c-h project,
 - Publicity, to attract national/international interest and participation
 - International/circumpolar participation (names)?
 - Appropriate communication of findings?
 - Fund-raising ideas?

7) Any other business

4.45 pm: Adjourn

6.00 pm: Banquet

Tuesday, October 30

Fireside Room

Researchers' Meeting

9.00 am:

- 1) Business arising from prior discussions (agenda provided at the meeting).
- 2) Any other business.

Noon -- 1.15 pm

Working Lunch

1.30 pm:

Adjourn
