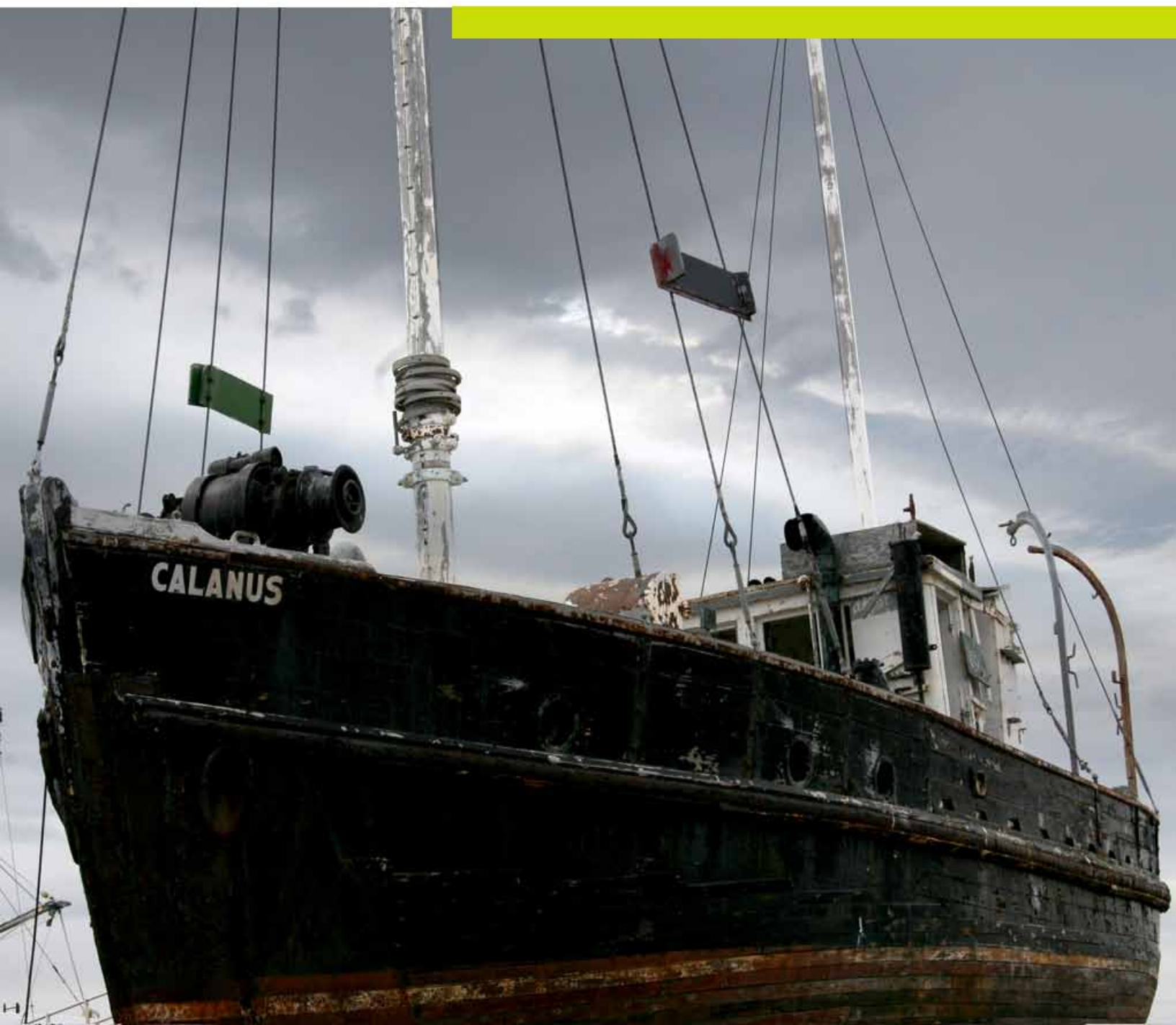




COMPENDIUM OF RESEARCH

Licensed under the
Nunavut Scientists Act in 2009
by Nunavut Research Institute



Please note that the project titles in the Table of Contents are hyperlinked to the appropriate page for easy viewing and can be reached by clicking on the title.

To return to the Table of Contents, just click on the "Return to Index" located at the bottom of each page.



COMPENDIUM OF RESEARCH 2009

For further information contact:
Mary Ellen Thomas, Senior Research Officer
(867) 979.7202 or Maryellen.thomas@arcticcollege.ca

Rick Armstrong, Manager, Scientific Support Services
(867) 979.7280 or ramstrong@arctic.college.ca

Message from the Senior Science Advisor

As the Institute wraps up another year of activity, we can see an increase in the amount of research being undertaken in Nunavut. Many projects are being initiated by Nunavummiut with a desire to generate more data relevant to lives in Nunavut. We will continue to monitor the types, numbers and locations of these projects going forward in order to measure possible impacts and outcomes.

We see great opportunities for research in Nunavut and with the development of new research facilities in Nunavut, that include a new office space, work stations, labs, conference and training facilities in Iqaluit. New Research Houses in Igloolik and Arviat that offer research facilities as well as accommodations and new labs in Rankin Inlet and Cambridge Bay. These new facilities will better accommodate researchers coming to the north and will support community based science led by Nunavummiut.

The Institute is continually working to seek out and develop new relationships to strengthen the range and type of research that is being carried out to improve knowledge of Nunavut and to improve the well being of our residents. We also seek out relationships that will offer ever increasing opportunities for Arctic College students to gain experience in research, heading to careers in science.



The new NRI facilities in Iqaluit. The two buildings will house the institute's offices and labs, as well as classrooms, conference room and library, when completed.



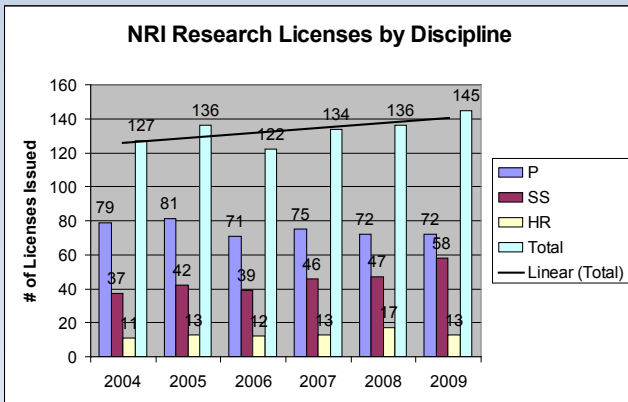
Exterior photo of our new lab in Rankin Inlet. A second lab has been built in Igloolik.



Interior photo of our new Research House in Arviat similar to our new Research House in Cambridge Bay.

Our Cover: *The Calanus*, the last of the original research vessels, developed for scientific research in the Canadian North. Abandoned on the beach in Iqaluit, this piece of Canadian Scientific Research history slowly disintegrates.

A Licensing Overview 2009



NRI licenses, which account for about 60% of all research projects licensed annually in Nunavut, are issued for research projects in physical/natural, social and health sciences. 2009 was a very busy year for scientific research in Nunavut. NRI issued more research licenses in 2009 (145) than in any of the past 6 years. The increase in research activity is most apparent in the social sciences. Compared to previous years there was no notable increase in 2009 in the number of projects licensed in the physical/natural and health disciplines. The number of licensed social sciences projects, however, far exceeded the number licensed in any of the past 6 years. Typically, a much larger number of projects are licensed in the natural/physical sciences than in the social and health disciplines combined. This discipline deficit seems to have narrowed in 2009 as a result of the relative increase in social sciences research activity.

The geographic distribution of licensed research activity in 2009 highlights some interesting disparities at the regional and sub-regional level (see map for regional boundaries). The majority (52%) of physical/natural sciences research activity is focused in a single sub-region (the North Baffin/High Arctic), while 64% of all social sciences research occurred in the Baffin region (North and South Baffin combined), with South Baffin hosting more projects than any other region. Kitikmeot hosted fewer physical/natural and social sciences research activities in 2009 than any other region. Health research activity was much more evenly distributed among the regions, but once again Baffin (North and South combined) hosted more projects than the other regions

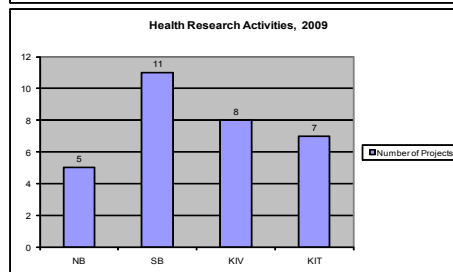
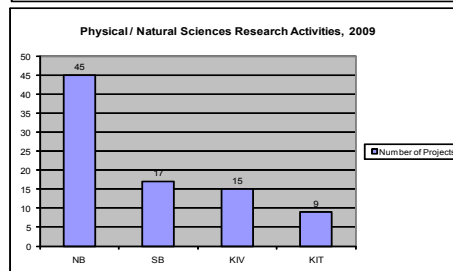
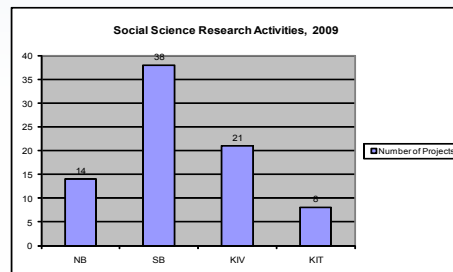




Table of Contents

HEALTH RESEARCH

Inuit Oral Health Survey (IOHS).....	12
Northern Treatment of Hypertension (NORTH).....	12
Smoking and Cessation among Pregnant Women in Nunavut.....	13
How Long Can Pregnant Women Stay in their Home Communities Before Giving Birth? A Project on the use of Fetal Fibronectin Testing “at term”.....	13
Should Newborn Screening Be Initiated in Nunavut for Mild CPT1 (Carnitine Palmitoyl Transferase -1) Deficiency?.....	14
The study of Congenital Heart Defects in a Northern Population.....	14
Building a Community Practice in Health Promotion and Disease Prevention for Community Health Nurses Working Across Health Sectors.....	15
Qanuipitali? What about us, how are we? Nunavut Inuit Health Survey.....	15
Intervention for a Chronic Disease Epidemic: Community Health Initiatives and Promotion Strategies for Diabetes Prevention (ICE CHIPS) in Native North Americans,” Healthy Foods North in the communities.....	16
The Effect of Promotional Strategies within the Co-op and the Northern Stores on the Purchasing Habits of Customers in Repulse Bay, Nunavut.....	17
Qaujivallianiq Inuusirijauvalauqtunik suicide follow-back study.....	17
Development and Evaluation of a Rapid Multiple Target Nanolitre Real Time PCR Panel to detect food and water borne infections in residents of Nunavut.....	18
Critical Care training for Health Care Practitioners Serving Aboriginal Communities.....	18

SOCIAL SCIENCES RESEARCH

Building empirically-based economic models in the Arctic: A look at Igloolik, NU.....	20
Seeing through Multiple Lenses”: Working together for a Land-Based Integrative Science Curriculum in Nunavut.....	20
Shared horizons: a dialogue between Indigenous and Western science.....	21
Impacts of a Changing Arctic Tree Line: Photos and Plants Through Time.....	21
The Baha’I Faith in Baker Lake, 1953-present.....	22
How Inuit and Greenlandic nurses and nursing students experience and negotiate their roles in Western education and healthcare settings.....	22
Local Discourses of Arctic Sovereignty in Iqaluit.....	23
Isumaksaqsirutigijaujut: Decolonizing Research in Nunavut.....	23
Mapping the Social Economy in Northern Canada - Nunavut Project.....	24
Examining the role of Inuit knowledge and Western scientific expertise in contemporary wildlife management in the Nunavut Territory, Canada.....	24
Typological aspects of Inuit Sign Language.....	25
How my family was affected by Relocation.....	25
Parental Involvement.....	26
The Nunavut Project: Inuit Self-Governance in Canada.....	26
Healthy Living in Schools and Substance Abuse among Youth (Part 2).....	27
Widowers.....	28
Socioeconomic and Environmental Effects on Public Behavior: The Case of Inuit Suicide.....	28
Community Engagement in Marine Protected Areas (MPA) Planning in the Arctic: Towards and Arctic Network of MPA’s.....	29
Marble Island as Cultural landscape.....	29
Entrepreneurship at the Edge: Self-employment and small business activity in the remote North.....	30
Representing space and time in inuit narrative practice. A journey through Inuit literature in English; from oral tradition to prose, from poetry to rap lyrics.....	31
Identity Configuration and Contemporary Inuit Drawing in Nunavut (arctic Canada).....	31
Inuit Knowledge and Global Climate Change in the Canadian Arctic.....	32
Recharting the Course(s) of History: Community Archaeology, Multivocality, and the Quest for Cultural Relevance in the Canadian Arctic.....	32
Assessing Igloolik’s Vulnerability to Sea Ice Change.....	33
The Dynamics of Human-Sea Ice Relationships: Comparing Changing Environments in Alaska, Nunavut, and Greenland (Siku-Inuit-Hila Project).....	33
Natural Hazards in Iqaluit.....	34
The Role of Co-operative Enterprise in the Social Economy of Repulse Bay.....	35

Academic Struggles in Grade Ten.....	35
Encourage Inuit Educators Involvement in NTA (Nunavut Teachers Association).....	36
Communicating With Parents About Student Achievement in High School.....	36
Inuit Resilience.....	37
How can Inuit students be more motivated to complete their high school education.....	37
Inuit Personal Names.....	38
Integrating Culture & Literacy in a Nunavut School.....	38
Together at a Distance: E-learning for the Canadian Pan-Arctic.....	39
Influence of Elders in Schools.....	39
Modularizing High School Courses.....	40
What influences members of a small community in making decisions about alcohol prohibition ?.....	40
What was traditional life style back then?.....	41
Total Physical Response for Revitalizing Inuinnaqtun.....	41
The Role of Inuit Land Claim Organizations in the Northern Social Economy.....	42
Agnico Eagle (AE) Meadowbank Project-Inuit Qaujimagatuqangit (IQ) Workshop.....	43
Production \$ Practice of Weather Knowledge in Pangnirtung, Nunavut.....	43
Social and Environmental Effects on Public Behaviour: The Case of Inuit Suicide.....	44
Traditional Inuit Medicines.....	44
Finding Inuit Math: Exploring and using the mathematical knowledge embedded in the traditional and ‘everyday’ practices of Inuit in Nunavut.....	45
Preliminary reliability assessment of Inuit estimates of polar bear sex, age, and size along with age of track based on in situ track observation.....	45
Inuit Ancestral Experiential Knowledge (IQ1) and Inuit Experiential Knowledge (IQ2) Differentiated by Inutuqait (Inuit Elders).....	46
The Role of Institutions in Shaping Inuit Participation in Climate Change Policy.....	46
Hazardous Weather in Iqaluit, Nunavut: Perceptions, Impacts, Vulnerabilities and Adaptations.....	47
Monetary and Traditional Resources in an Inuit Ilagiit Clyde River.....	47
Kinships Networks:Contemporary Social Relationships Among the Belcher Islands Inuit.....	48
American and Inuit Whalers in Cumberland Sound, 1850-1918.....	49
Oral Tradition and Material Culture of the Inuit of Nunavut.....	49
Collectionism of Inuit Art.....	50
A Phenomenological Study of the Elementary School Experiences of Inuit Children who Choose to remain in School and Graduate.....	50

PHYSICAL/NATURAL SCIENCES RESEARCH

Ferguson Lake Environmental Baseline Studies, 2008-2010 Error! Bookmark not defined.Canadian Arctic Buoy Program.....	52
Canada Arctic Bouy Program.....	52
Peregrine Diamonds Ltd. Chidliak Property 2009 Baseline Environmental Studies.....	53
The Ecology of Nunavut Aquatic Systems.....	53
The PolarDARN Component of SuperDARN.....	54
Hydrological Baseline Assessment of the Kiggavik Project.....	55
Influence of liquid water on biological activity in Arctic soil.....	55
Coastal natural hazard and habitat mapping, Arctic Bay, Nunavut.....	56
Helicopter electromagnetic measurements of the sea ice mass balance.....	56
Landscape ecology and disturbance in arctic intertidal zones.....	57
Canadian Gravity Standardization Network Modernization-Northern Surveys.....	57
Hall Peninsula, Nunavut Aeromagnetic Survey.....	58
Mercury and other contaminants in arctic char from lakes near Resolute Bay (Cornwallis Island).....	58
Flashline Mars Arctic Research Station.....	59
Chesterfield Inlet, Nunavut Aeromagnetic Survey.....	60
Industrial Minerals, Limestone (carbonate) resources, Southhampton Island.....	60
Northeast Thelon Geophysical Framework Maps.....	61
Microbial investigations of cold saline springs and permafrost in the high Arctic.....	61
Environment Canada Arctic Municipal Wastewater Research.....	62
Assessing the use of natural and constructed wetlands for wastewater treatment in the Kivalliq.....	62
Scientific Investigations supporting the Resolution Island cleanup project.....	63
Axel Heiberg Island Project.....	63
Astronomical Site Testing on Ellesemere Island.....	64

Mapping Mantle Diamond Potential/Churchill Diamonds	64
The Resolute Bay Observatory.....	65
DRDC Northern Watch Technology Demonstration Project	65
Permafrost Monitoring - High Arctic Observations.....	66
Calibration and Validation of the Cryosat Radar Altimeter: Field Studies on Devon Ice Cap, Nunavut.....	66
The dynamic response of Arctic glaciers to global warming: A Canadian contribution to International Polar Year project Glaciodyn (IPY30).....	67
Northern Base and Precious Metal potential.....	67
UNCLOS Bathymetric survey.....	68
Pan-Arctic Measurements and Arctic Regional Climate Model Simulations (PANARCMIP) Sea Ice Studies.....	69
Glacier and Climate Evolution of Baffin Island, Arctic Canada.....	70
Cumberland Peninsula Integrated Geoscience (CPIG) project.....	70
Melville Peninsula Geo-Mapping (GEM) Project.....	71
Glacier Mass Balance and Pollution Studies in the Canadian high Arctic.....	71
Catlin Arctic Survey.....	72
Climate change effects on the hydro-ecology of Northern lakes.....	72
Permafrost Hydrology and Environmental Significance of Perennial Springs in the Expedition Fiord Area, Axel Heiberg Island.....	73
Monitoring Carbon Dioxide Exchange on the Arctic Tundra.....	73
Landscape processes at Cape Bounty, Melville Island and North Lake, Cornwallis Island.....	74
Freshwater & Marine Studies Winter 2009, Jaynes Inlet.....	74
Earth.....	75
Energy Potential of Eastern Sverdrup Basin.....	75
Houghton-Mars Project: Northwest Passage Drive.....	76
Permafrost Monitoring - High Arctic Observatories.....	76
High Arctic Ground Temperature Monitoring.....	77
Soot in Arctic Snow and its Influence on Surface Albedo.....	77
Canada's Three Oceans Project.....	78
Provenance of classic sediments in the Sverdrup Basin, Canadian Arctic Islands.....	78
Arctic Ocean Climate Change Project.....	79
Astronomical Site Testing on Ellesmere Island.....	79
Reconstructing climate and river fluctuations at Pelly Bay, Nunavut.....	80
Water quality and environmental change at Cape Herschel and Stygge Nunatak Pond, Ellesmere Island.....	80
Meliadine West Gold Project.....	81
AREVA Kiggavik-Sissons Project Aquatic Baseline Program.....	82
Quantifying Changes in Multi-year Floes Drifting through the Arctic.....	82
Hydrocarbon Potential of Northern Melville Island.....	83
Development of a Research Project on the Permafrost Environmental System.....	83
Provenance of Clastic Sediments in the Sverdrup Basin.....	84
Climate Change Hazard Mapping in Nunavut Communities.....	84
Sea Level Rise and Coastal Hazards in Arctic Canada.....	85
Paleoclimates of the Foxe Basin and Surrounding Regions.....	85
ArcticNet 2009 Expedition: Integrated Regional Impact Study of the Canadian High Arctic.....	86
Axel Heiberg Island Project.....	86
Houghton-Mars Project: Mars Analog Studies at the Houghton Impact Crater, Devon Island, Nunavut.....	87
Researcher Index.....	90

HEALTH RESEARCH



Inuit Oral Health Survey (IOHS)

License Number: 0501809R-M Amended

Principal Investigator: Ames, Harry

Affiliation: Office of the Chief Dental Officer
Health Canada
Ottawa, ON, CA
Harry_ames@hc-sc.gc.ca

Number in Party: 3

Research Location: Nunavut Wide

SUMMARY

The Inuit Oral Health Survey was developed to collect national level oral health information for the Canadian Inuit population to establish the oral health status of the average Inuk which will directly be comparable to the oral health status of the average Canadian. Statistics Canada is currently conducting the Canadian Health Measures Survey (CHMS) to determine the health status of Canadians however, the people living in the North, First nations people living on reserves, the Canadian Armed Forces Bases and people living in institutions were excluded from that survey. The CHMS is in the last year of data collection and will wrap up in March 2009. The IOHS is timed to coincide with the CHMS completion.

The methodology was developed by a statistician, based on age groups and the prevalence of the diseases to be measured, who determined that 1265 individuals divided among 6 communities would be necessary to provide reliable nationally representative oral health information. The communities have been selected using a combination of random selection and selection with certainty.

The IOHS will be a one visit survey with two components:

- Interview component of approximately 15 minutes in length
- Clinical dental examination of approximately 10 minutes in length
- Administration time of approximately 20 minutes.

The total estimated time commitment to participate in the IOHS is approximately 45 minutes.

This interview process will take place in a facility that the community will judge appropriate to conduct the survey.

Northern Treatment of Hypertension (North)

License Number: 0502309N-M

Principal Investigator: Makowsky, Mark J.

Affiliation: Faculty of Pharmacy and
Pharmaceutical Sciences
Edmonton, AB, CA
mmakowsky@pharmacy.ualberta.ca

Number in Party: 3

Research Location: South Baffin, Kivalliq

SUMMARY

High blood pressure and diabetes markedly increase the risk of premature heart disease and stroke (cardiovascular disease). Despite this, high blood pressure (hypertension) remains poorly managed. Our research group, made up of physicians and pharmacists is interested in ways to improve the control of high blood pressure, particularly in those people with diabetes. We feel that community pharmacists can play a larger role in health promotion and disease management relating to blood pressure, particularly in northern settings where there is a high prevalence of high blood pressure, diabetes and heart disease and access to health care services is a major challenge. Therefore, we have teamed up with the Northwest Company to determine if having a community pharmacist identify, educate, and monitor individuals with diabetes and high blood pressure improves blood pressure control. Based on results of our previous research, we think that this type of service delivered by community pharmacists will help people with diabetes living in the North achieve improved control of their blood pressure and lead to a reduced numbers of heart attacks and strokes in the future.



Smoking and Cessation among Pregnant Women in Nunavut

License Number: 0100909R-M-Amended

Principal Investigator: Reid, Robert

Affiliation: Ottawa Health Services
Network Inc.
Ottawa, ON, CA
breid@ottawaheart.ca

Number in Party: 5

Research Location: South Baffin

SUMMARY

Little is known about the experience of pregnant smokers in Nunavut concerning quitting smoking or the kinds of advice they receive from their health care providers. This pilot project will create a better description and explanation of smoking behaviour among pregnant smokers in the Baffin Region of Nunavut. Participation from pregnant women and health care providers in this study will help create relevant smoking cessation strategies.

How Long Can Pregnant Women Stay in their Home Communities Before Giving Birth? A Project on the use of Fetal Fibronectin Testing “at term”.

License Number: 0101209R-M

Principal Investigator: Kornelsen, Jude

Affiliation: The Centre for Rural Health
Research
Vancouver, BC, Canada
jude@saltspringwireless.com

Number in Party: 5

Research Location: South Baffin

SUMMARY

Many pregnant women across Canada living in rural and remote communities have to leave their home communities to give birth due to a lack of local maternity services. This can create negative health outcomes and significant social stress for rural women and their families. This is an issue in Nunavut due to its isolation and extreme physical environment. Although infrastructure for local delivery in every community in Nunavut would help reduce negative health outcomes, it is not feasible due to financial and health service delivery challenges. A reasonable strategy, however, is to reduce time spent in referral communities by pregnant women, allowing women to stay in their home community for longer. The use of the “Fetal Fibronectin Test” for pregnant women at term (the end of a normal pregnancy between 37-42 weeks) may be the way to do this.

We are interested in learning about whether or not the Fetal Fibronectin Test can be used to predict when, close to her due date, a woman will go into labour. If it can, the test can be used to safely allow women in remote communities to stay at home longer before leaving for Iqaluit or Rankin Inlet to give birth. This pilot study will be conducted at the Baffin Region.



Should Newborn Screening be Initiated in Nunavut for Mild CPT1 (Carnitine Palmitoyl Transferase -1) Deficiency?

License Number: 0502509R-M

Principal Investigator: Arbour, Laura

Affiliation: Department of Medical Genetics
Victoria General Hospital
Victoria, BC, CA
laura.arbour@viha.ca

Number in Party: 4

Research Location: Nunavut Wide

SUMMARY

CPT1 deficiency is caused by a genetic change (mutation) in the Carnitine Palmitoyl Transferase-1 gene. This gene normally produces a protein that is involved in producing energy from the fats we eat. We all have two copies of this gene (all of our genes come in pairs) as we inherited one copy from our mother and one copy from our father. People who have a mutation in both copies of their CPT1 gene produce a protein that does not work properly. These individuals have trouble producing energy from fats. The mutations do not usually affect people in day to day life, because we get most of the energy we need by breaking down sugars from our food rather than fats. However, when we get sick or are not eating enough food for other reasons our bodies start to break down our fat stores for energy. Thus, individuals (particularly infants) who have CPT1 mutations in both copies of the gene can run into health problems during periods of illness or fasting because they cannot produce enough energy from fats. The result may be low blood sugar (hypoglycemia) and seizures or, in the worst-case scenario, unexpected sudden infant death.

The study of Congenital Heart Defects in a Northern Population

License Number: 0502609R-M

Principal Investigator: Arbour, Laura

Affiliation: Department of Medical Genetics
Vancouver, BC, Canada
larbour@cw.bc.ca

Number in Party: 2

Research Location: Nunavut Wide

SUMMARY

Congenital heart malformations is a common congenital malformation, diagnosed around the world in about 1% of live births. This is also true in the Canadian Arctic, where in Nunavik, the rate of infant mortality is 5 times that of non-aboriginal Quebec and 2/3 of the neonatal deaths are due to birth defects. In Nunavut and Nunavik, a 5 year cohort of more than 2,500 Inuit births occurring between 1989-1994 evaluating the rates of birth defects, confirms that congenital heart defects, specifically septal defects (VSD's) and atrial septal defects (ASD's) were nearly 5 times more frequent than in other Canadian populations. Children and their mothers will be invited to participate in the study which will compare vitamin levels of the mothers, genetic factors of mothers and children with controls (the mothers's sisters). As well, dietary histories of the cases, controls and other women of childbearing years will be assessed for intake of nutrients important in fetal development. Histories of pregnancy exposures will be compared between cases and controls.



Building a Community Practice in Health Promotion and Disease Prevention for Community Health Nurses Working Across Health Sectors

License Number: 0502809R-M

Principal Investigator: Diem, Elizabeth

Affiliation: School of Nursing
University of Ottawa
Ottawa, On, Canada
lizdiem@uottawa.ca

Number in Party: 4

Research Location: Nunavut Wide

SUMMARY

Three nurse researchers are working together to study a community of practice (CoP) to support a change of practice. Liz Diem is the principal investigator and an Assistant Professor at School of Nursing, University of Ottawa; Alwyn Moyer is an Adjunct Professor at School of Nursing, University of Ottawa; Marjorie MacDonald is an Associate Professor at the University of Victoria. The study has been funded by the Community Health Nurses Association of Canada.

We invite public health, home health and community health nurses to participate in this study as representatives of your organization. The purpose of the study is to determine the utility of a community of practice in increasing collaboration across health sectors and developing skills in program planning.

The benefits of the study for participants will be the opportunity to further develop leadership and planning skills and contribute to the knowledge on effective learning methods for health professionals. Participation in the study will involve: 1) a three hour workshop in February 2008 and 2009 including the completion of a consultation form and 2) participation in eleven, one and a half hour teleconferences over the 18 months of the study, and 3) two interviews of 30 minutes between February 2008 and June 2009. The consultation forms involve questions on the use and usefulness of procedures and resources from the community of practice for your professional development. The workshops and teleconferences will be conducted in English.

Qanuipitali? What about us, how are we? Nunavut Inuit Health Survey.

License Number: 0502909R-M

Principal Investigator: Egeland, Grace

Affiliation: CINE
McGill University
Ste-Anne-de-Bellevue, PQ, CA
grace.egeland@mcgill.ca

Research Location: Nunavut Wide

SUMMARY

The Inuit Health Survey was developed to better understand the factors contributing to Inuit health and the Inuit spirit of thriving in the face of changes. Inuit want health information and health research that is Inuit specific and of practical relevance so that informed decisions can help minimize the negative consequences of the rapid transitions that continue to occur in Arctic communities. Nunavutmiut have expressed a need for “Timikut Qaujsaqsiatauniq” that is to have their health looked after and cared for. Also, upon learning of the Nunavik Health Survey named “Qanuippitaa” (how are we), Nunavutmiut partners responded, “Qanuipitali” (what about us, how are we?). The Inuit health survey involves: an adult health survey, child health survey and household survey.



Intervention for a Chronic Disease Epidemic: Community Health Initiatives and Promotion Strategies for Diabetes Prevention (ICE CHIPS) in Native North Americans,” Healthy Foods North in the communities

License Number: 0402109R-M
 Principal Investigator: Sharma, Sangita
 Affiliation: Nutrition Research Institute
 University of North Carolina
 at Chapel Hill
 Kannapolis, NC, USA
 sangitasharma@unc.edu
 Number in Party: 7
 Research Location: Kitikmeot

SUMMARY

Using a community-based and community-driven approach to reduce risk for obesity and chronic disease by working in partnership with Inuit communities to develop, implement and evaluate culturally appropriate intervention programs aimed at improving diet, increasing physical activity, and providing education concerning healthy lifestyle choices in adults. Despite the known benefits of behavioural modification in reducing risk of chronic disease, there have been no intervention programs specifically targeting Inuit populations. Based on formative research and using a community participatory process, we will develop a multilevel intervention program that will function at the community, institutional, household and individual levels, and will be implemented in food stores, schools, the local media and health and social services agencies.

Through the multi-institutional partnerships with existing health programs at the community level, Healthy Foods North will use culturally relevant nutrition and health education sessions to improve overall health knowledge which will result in positive changes in diet and physical activity that lead to decreases in risk factors for chronic disease particularly diabetes.

R

The study will take place in three communities in Nunavut – Cambridge Bay and Taloyoak and one year later in Gjoa Haven community. Healthy Foods North aims to:

- develop and implement a multi-institutional diabetes prevention intervention program based on formative research and using a community participatory process.
- work with food retailers to increase the availability of healthier foods and promote them at the point of purchase.
- evaluate the impact of the program between intervention and comparison communities by measuring and comparing pre- to post-intervention change in dietary intake and food related psychosocial factors.
- assess the level of success in implementing the program with a detailed process evaluation.
- disseminate the approach and experience to community, government, not-for-profit groups in preparation for a larger intervention study.

Building on existing work completed for the Healthy Foods North project, this study will utilize Quantitative Food Frequency Questionnaires (QFFQ), Adult Impact Questionnaires (AIQ) and International Physical Activity Questionnaire (IPAQ) which includes height and weight to measure the effectiveness of the Healthy Foods North intervention program. Community members will be trained to administer questionnaires in their communities. Throughout the development and implementation process, results will be presented to communities and communities will therefore be provided with the opportunity to influence the development of the intervention program.



The Effect of Promotional Strategies within the Co-op and the Northern Stores on the Purchasing Habits of Customers in Repulse Bay, Nunavut

License Number: 0300909N-A

Principal Investigator: Abbi, Nita

Affiliation: Manitoba Partnership Dietetic Education Program
Winnipeg Regional Health Authority
Winnipeg, Manitoba, Canada
nitaabbi@gmail.com

Number in Party: 4

Research Location: Kivalliq

SUMMARY

The purpose of this research project is to determine the influence that in-store promotions and nutrition signage will have on customers' grocery buying habits in Repulse Bay, Nunavut. This project is about promoting healthy food options available in the grocery stores in the community. Prior to arriving in Repulse Bay, the researchers will ask each store manager to provide sales reports for the selected items to determine how often they were purchased and in what quantity. Tracking will take place over a 2-week period. Approximately one week after arriving in the community, the researchers will begin the project. The researchers will advertise grocery store visits, post nutrition-related messages near specific products in both of the grocery stores and conduct taste panels promoting healthy options. After the taste panel has been held in each store, volunteers will conduct/distribute surveys over the course of two or three sessions. Eight questions will be used to determine participants' past experience(s) with purchasing the featured food/beverage items and the likelihood of purchasing those products in the future. The surveys will be offered to visitors as they exit the store and will be kept anonymous. In order to draw comparisons, the researchers will request again sales data for the four items being promoted to determine if the products were bought more frequently—this sales data will be collected for two weeks during the promotion and for two weeks after the promotion has come to an end.

At the end of the two product promotional periods, surveys will be tallied, collated and interpreted before being shredded. Research results will be presented to the research partners on May 14, 2009 and will be made available to community members through a newspaper article.

Qaujivallianiq Inuusirijauvalauqtunik suicide follow-back study

License Number: 0503009R-M

Principal Investigator: Hicks, Jack

Affiliation: Director, Qaujivallianiq
Inuusirijauvalauqtunik
Iqaluit, NU, CA
jack@jackhicks.com

Number in Party: 3

Research Location: Nunavut Wide

SUMMARY

The Qaujivallianiq inuusirijauvalauqtunik ('Learning from lives that have been lived') suicide follow-back study is being conducted by the McGill Group for Suicide Studies (MGSS, www.douglasrecherche.qc.ca/suicide/), based out of the Douglas Hospital Research Centre in Montreal.

A team of psychiatrists and psychologists led by Dr. Gustavo Turecki, Director of the MGSS, won a 'New Emerging Team' grant from the Canadian Institutes for Health Research (CIHR) in 2004.1 The proposal was supported by the Government of Nunavut, the Chief Coroner of Nunavut, the Royal Canadian Mounted Police, Nunavut Tunngavik Inc., the organization which evolved into the Isaksimagit Inuusirmi Katujjiqatigiit, the churches, etc. The study is funded until 2010.

The study seeks to describe in detail the lives of 100 or more Nunavut Inuit who died by suicide in the four-year period 2003 to 2006: their family structure, childhood experiences, school history, work history, relationship history, history of alcohol and drug use, medical history, psychological history, and other factors which may have played a role in his/her death. Two interviews are usually conducted for each person: one with a parent or other family member, and a second with a partner or friend – someone who knew the person well in the last year of his/her life. Families are also asked to consent to a review of their loved one's medical records.



Development and Evaluation of a Rapid Multiple Target Nanolitre Real Time PCR Panel to detect food and water borne infections in residents of Nunavut

License Number: 01 041 09N-A

Principal Investigator: Goldfarb, David

Affiliation: McMaster University
Medical Centre
Hamilton, Ontario, Canada
dgoldfarb@cheo.on.ca

Number in Party: 5

Research Location: South Baffin

SUMMARY

There are widespread concerns about the risk of bacterial, viral and parasitic infections due to unsafe food and water in Canada, which have been demonstrated by the recent outbreak of *Listeria* through contaminated foods. The problem of potentially unsafe food and water is particularly critical in Northern Aboriginal communities, due to issues such as potentially contaminated water supplies, and overcrowding in homes, where a food or water borne infection may spread from the sick person to other family members.

These infections can cause diarrhea, vomiting, stomach pain and fever. In some cases, severe complications such as kidney failure, anemia (low blood), arthritis, and paralysis can result from these infections.

We believe that in order to prevent these infections, we first need to know which infectious agents are responsible. The ability of labs to diagnose many of these infections is currently believed to be very poor. This is because labs presently look for only a small number of germs known to be common in the south and the harsh weather conditions and long transit times may reduce detection rates for sought after pathogens in Northern communities.

Critical Care training for Health Care Practitioners Serving Aboriginal Communities

License Number: 01 043 10 N-M

Principal Investigator: Willet, Dr. Timothy

Affiliation: CRI Critical Care
Education Network
Ottawa, Ont., Canada
tim.willet@criedunet.org

Number in Party: 3

Research Location: South Baffin

SUMMARY

Research into many diseases – particularly severe sepsis and septic shock – clearly demonstrates that early and aggressive resuscitation saves lives. It has also been shown that applying intensive care sooner can offset ‘downstream’ costs, by preventing patients from becoming sicker by virtue of more timely interventions. Consequently, because of health care access issues and the distance to tertiary centres, people living in remote and underserved regions are particularly vulnerable to the consequences of critical illnesses.

Physicians in such communities see critical illness infrequently, but must nonetheless be prepared to recognize at-risk patients and institute life-saving therapies during these crucial early hours. Additional challenges for rural and remote physicians include a lack of quick access to specialist consultation and the need to manage patients locally for extended time – sometimes days – before transport is coordinated and possible.



SOCIAL SCIENCES RESEARCH



Building empirically-based economic models in the Arctic: A look at Igloolik, NU

License Number: 0201609N-A
 Principal Investigator: Kennedy, Sheena
 Affiliation: Carleton University
 Ottawa, ON, CA
 skenned5@connect.carleton.ca
 Number in Party: 4
 Research Area: North Baffin
 Fieldwork Locations: Igloolik

SUMMARY

The objective of this project is to develop an empirically-based model of the current Igloolik economy, taking into account all formal and informal economic activity, with criteria to be developed in collaboration with the community government. There will be three phases to the project. First, I will assemble all existing socio-economic statistical and historical data on the community, using the Census, the Nunavut Bureau of Statistics files, and internet research. Once the data is assembled, the information will be presented to community representatives in the form of an electronic file, a written report, and an oral presentation. Second, I will conduct research in Igloolik, with the support of staff at the Hamlet Council and a co-researcher who is a member of the community. Third, a final report will be prepared for use by the community. It will be validated in a review by key informants of the community, then revised and translated. In addition, after this process has been completed, I will prepare an academic publication co-authored with Frances Abele and Jack Hicks. This research will also form the basis of a research paper for a directed study for my Master's in Public Administration.

"Seeing Through Multiple Lenses": Working Together for a Land-Based Integrative Science Curriculum in Nunavut

License Number: 0102409N-A
 Principal Investigator: Dodsworth, Sharina
 Affiliation: qaluit, NU, CA
 sdodsworth@gov.nu.ca
 Number in Party: 2
 Research Area: South Baffin
 Fieldwork Locations: Iqaluit

SUMMARY

An over-arching research question for this project is identified as "What is an appropriate land-based curriculum and pedagogical approach for fostering Two-Eyed Seeing in Nunavut students towards increased environmental understanding and stewardship?" This broad question serves as a guiding concept for the project which, in the spirit of the cooperative inquiry process, will be further delimited in collaboration with the group of individuals cooperating in the research project.

- 1) Documentation of a collaborative, multi-stakeholder process in which educators, scientists, and Inuit knowledge holders come together to define integrative science and environmental education in Nunavut, and determine how to achieve it in land-based camp programs;
- 2) Development of a set of learning outcomes and corresponding curriculum framework for land-based camps targeting grade 7-9, which can be adapted to local realities and replicated for other grade levels and for other organizations delivering camps;
- 3) Development of an accompanying teaching manual that supports teachers and educators in delivering the curriculum and adapting it to meet local needs. This will address potential barriers to land-based camp delivery and cross-cultural teaching in general.



Shared horizons: a dialogue between Indigenous and Western science

License Number: 0103109N-A

Principal Investigator: Higgins, Marc

Affiliation: Faculty of Education
Lakehead University
Thunder Bay, ON, CA
mrhiggin@lakeheadu.ca

Number in Party: 3

Research Area: South Baffin

Fieldwork Locations: Iqaluit

SUMMARY

The people of Nunavut are learners. Where the schooling in Nunavut is still largely based on EuroCanadian knowledge and teaching, schooling can be a negative experience - the problem is not one of achievement but rather one of cultural inappropriateness. This is especially the case for subjects such as science or math. There is need for a learning experience that matches the character, the values, the traditions of Nunavut; culture and student learning are linked. Inuit Qaujimagatuqangit and Western science do not have to be mutually exclusive: there are many concepts from both worldviews that resonate with one another.

Video is a language of cultural rejuvenation because it allows expression of personal experience through images, rather than text – it deeply captures daily life and cultural rhythms. It also allows youth to cross between culturally clashing concepts with greater ease.

This research intends to help students learn to see what they already know (through video): both Inuit Qaujimagatuqangit and Western science are both valuable, yet different, paths to knowledge and that both can be walked upon.

Impacts of a Changing Arctic Tree Line: Photos and Plants Through Time

License Number: 0503509 R-M

Principal Investigator: Doubleday, Nancy

Affiliation: Department of Geography and
Environmental Studies
Carleton University
Ottawa, ON, CA
nancy_doubleday@carleton.ca

Number in Party: 8

Research Area: Nunavut Wide

Fieldwork Locations: Cape Dorset, Iqaluit, Kimmirut,
Arviat, Baker Lake, Sanikiluaq

SUMMARY

To develop deeper knowledge of the impacts of a changing arctic treeline on the health and well-being of northerners by using qualitative methods to document changing landscape and land use using photographs and plant materials.



The Baha’I Faith in Baker Lake, 1953-present

License Number: 0301709N-M
Principal Investigator: Neigo, Margaret
Affiliation: Independent
Renfrew, ON, CA
miblauq@yahoo.ca
Number in Party: 2
Research Area: Kivalliq
Fieldwork Locations: Baker Lake

SUMMARY

The project will collect information about the development of the Baha’I Faith in Baker by interviewing people who were associated with that development. The eventual goal of the project is to produce a written history of the development of the Baha’I Faith in Baker Lake.

How Inuit and Greenlandic nurses and nursing students experience and negotiate their roles in Western education and healthcare settings

License Number: 0103009R-M
Principal Investigator: Moeller, Helle
Affiliation: Department of Anthropology
University of Alberta
Thunder Bay, ON, CA
helle@ualberta.ca
Number in Party: 1
Research Area: Qikiqtani, Kivalliq
Fieldwork Locations: Rankin Inlet, Iqaluit

SUMMARY

The purpose of this anthropological research project is to examine how Canadian and Greenlandic Inuit nursing students and practicing nurses experience and describe the pedagogy, ways of knowing and world views that exists within their places of education and practice, and, how they negotiate their roles in educational and health systems developed and governed by Danes or Euro-Canadian, according to Danish and Euro-Canadian doctrine and culture, where the teaching language is Danish / English.



Local Discourses of Arctic Sovereignty in Iqaluit

License Number: 01 038 09N-A

Principal Investigator: Weber, Barret

Affiliation: Department of Sociology
University of Alberta
Edmonton, AB, CA
barretw@ualberta.ca

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Iqaluit

SUMMARY

The investigators will conduct interviews in Iqaluit, Nunavut from September 29 through October 12, 2009. In this research project we attempt to relate local discourses to the wider questions about sovereignty in the Arctic. We attempt to understand the various ways in which residents of Iqaluit, Nunavut interpret and enjoy life in their town, region, and broader contexts in everyday terms. We will gather data for this project by conducting open-ended interviews with local stakeholders and to document the interviews using electronic recorders. This research is focused primarily on issues having to do with diverse conceptions of land and water, or what we will attempt to articulate as new 'geographies of sovereignty'. Therefore, the research will highlight interviews with local stakeholders or Arctic residents. We investigate local social processes that challenge not only the traditional concept of sovereignty, but also the manner in which local perspectives are both supporting and challenging the validity of scientific claims about the region. By examining the relationship between geopolitics, science, and everyday life, we show that the Arctic is a place of knowledge-generation and -exchange amongst indigenous peoples, scientists, citizens, researchers, media, policy makers, and others.

Isumaksaqsirutigijaujut: Decolonizing Research in Nunavut

License Number: 03 024 10R-M

Principal Investigator: McGrath, Janet

Affiliation: Carleton University
Arnprior, ONT, Canada
tamalik@sympatico.ca

Number in Party: 2

Research Area: Kivalliq, Kitikmeot, Qikiqtaaluk

Fieldwork Locations: Rankin Inlet, Arviat, Cambridge Bay, Gjoa Haven, Iqaluit and Igloolik

SUMMARY

The purpose of this research is to look at Inuit ways of explaining their experiences in creating knowledge. This includes traditional knowledge as well as academic (school) and non-academic (non-school) ways of creating knowledge. To understand this, I will interview different people and small groups of people in three regions in Nunavut. After the interviews I will listen to the recordings to see how the stories people tell fit into overall patterns.

Informal interviews, focus groups and Internet dialogues will be used to record narratives (stories) for analysis. I would like to hold interviews in all three Nunavut regions if possible.

The method of recording used will be video and audiotapes. From these recordings, I will personally transcribe, translate and analyze the material. I am incorporating a feedback loop in my methodology to allow participants access and input to my interpretations and findings.



Mapping the Social Economy in Northern Canada - Nunavut Project

License Number: 05 045 09R-M

Principal Investigator: Southcott, Chris

Affiliation: Department of Sociology
Lakehead University
Thunderbay, ON, Canada
csouthco@lakeheadu.ca

Number in Party: 5

Research Area: Nunavut Wide

SUMMARY

The Social Economy Research Network of Northern Canada is part of a national research suite with 6 regional networks and a coordinating Hub funded through the Social Sciences and Humanities Research Council of Canada. The Northern node is built around the three Northern Territorial Colleges and their respective research institutions and links researchers working in the North with Northern students, community organizations and educational institutions. The Node has proposed 4 research themes to be addressed. This project deals with Theme 1 to develop a profile of the social economy in Northern Canada. This will be achieved through establishing a categorization and inventory of the existing social economy organizations. The research is an important initial task of this group as it will assist the program with developing further research projects that address the needs and priorities of northern communities and organizations.

Examining the role of Inuit knowledge and Western scientific expertise in contemporary wildlife management in the Nunavut Territory, Canada

License Number: 0501909N-A

Principal Investigator: Henri, Dominique

Affiliation: Linacre College
Oxford, Oxfordshire,
United Kingdom
dominiquehenri@gmail.com

Number in Party: 3

Research Area: South Baffin, Kivalliq

Fieldwork Locations: Iqaluit, Coral Harbour, Igloolik

SUMMARY

In northern Canada, there has been a growing interest in Inuit ecological knowledge in recent years. Much of it is related to its use in land-claim processes, co-management, environmental impact assessments, resource management and cultural preservation movements. Through the creation of the Nunavut Territory in 1999, Inuit knowledge has gained an official status in wildlife and natural resource management, as well as in the general governance process within this territory. However, the meaningful contribution of Inuit knowledge and Western scientific expertise to environmental decision-making is currently posing various challenges to resource users, environmental managers and scientists in Nunavut. This is in part due to unequal power relations, as well as differences in their views and assumptions. In this context, this project aims to explore and analyze the roles played by Inuit and Western scientific knowledge in contemporary wildlife management in Nunavut.

Through the use of two precise case studies, namely the case of knowing and managing the Common eider (mitiq or Somateria mollissima) and the polar bear (nanuq or Ursus maritimus), this project will explore the ways in which different types of knowledge are constructed, identified, transformed and authorised through the process of managing wildlife in Nunavut. This research seeks to contribute to the formulation of more effective and culturally sensitive wildlife management practices in the Canadian north and beyond.



Typological aspects of Inuit Sign Language

License Number: 0300309N-M-Amended

Principal Investigator: Schuit, Joke M.

Affiliation: Universiteit van Amsterdam ACLC
Amsterdam, , Netherlands
J.M.Schuit@uva.nl

Number in Party: 2

Research Area: Kivalliq

Fieldwork Locations: Rankin Inlet, Baker Lake

SUMMARY

The goal of this project is to describe some linguistic aspects of Inuit Sign Language (ISL), which – apart from some aspects of its vocabulary – is as yet undescribed. ISL has recently been recognized by the government of Nunavut (see attached Minister’s statement). The Nunavut government has clearly indicated that they would like to develop ISL. A prerequisite for the development of ISL is a linguistic description of the language.

From a linguistic point of view, it is interesting to describe ISL because of its unique setting: it is a language used in a wide area by few people. Moreover, the extreme weather conditions of Nunavut are expected to have influenced the structure of the language. Furthermore, ISL is expected to be highly influenced by the surrounding spoken language Inuktitut, a fact which may have lead to unique linguistic structures that are not found in other signed languages around the world.

The study will focus on selected semantic fields (colour, kinship and time terms) as well as on some grammatical aspects (noun-verb patterns, verb agreement) of ISL. Furthermore, an inventory of the handshapes used in the sign language will be compiled. All patterns found will be compared to those of other signed languages as well as to Inuktitut.

How my family was affected by Relocation

License Number: 0100309N-A

Principal Investigator: Pitsiulak, Saa

Affiliation: Department of Education
UPEI
Iqaluit, NU, Canada
spitsiulak1@gov.nu.ca

Number in Party: 1

Research Area: South Baffin

Fieldwork Locations: Iqaluit

SUMMARY

This project is to uncover family history and ancestral ways. My family lived at traditional camps, self-sufficiently and maintained Inuit ways based on Inuit values and culture. It is for me to learn what was the way of life before colonization began. And for my immediate family and others to understand the changes Inuit went through.



Parental Involvement

License Number: 0100209N-A
Principal Investigator: Flaherty, Elisapee
Affiliation: UPEI
Iqaluit, NU, Canada
eflaherty@gov.nu.ca
Number in Party: 1
Research Area: South Baffin
Fieldwork Locations: Iqaluit

SUMMARY

The Purpose of my research is to explore Parental Involvement in schools. Nine (9) participants will be selected (to participate in interviews/focus groups) to determine their thoughts about Parental Involvement in schools. The interviews will be recorded and transcribed. After transcription, the interviews will be analyzed and the results written up as a research report which will be shared with participants and at a public presentation in the summer of 2009. All participants will remain anonymous and their contributions will be kept confidential.

The Nunavut Project: Inuit Self-Governance in Canada

License Number: 0100409N-A
Principal Investigator: Argetsinger, Timothy H.
Affiliation: Dartmouth University
Hanover, NH, USA
Inupiaq@Dartmouth.edu
Native American Studies
Number in Party: 2
Research Area: Iqaluit
Fieldwork Locations: South Baffin

SUMMARY

Purpose: As a critical part of my undergraduate senior thesis research for Native American Studies, I would like to visit Iqaluit, Nunavut to have a series of recorded conversations with Nunavummiut about what their territory means to them and how they hope to see it develop in the future. My thesis focuses on the Government of Nunavut as an alternative form of indigenous self-governance, and I believe it is therefore important that the voices of Inuit territorial residents inform my research questions and directly contribute to the conversation about Inuit self-determination in Nunavut.

Goals and Objectives: As a young government, the question of how successfully the Government of Nunavut has represented Inuit interests and integrated Inuit cultural values, practices, and language into territorial institutions is still being answered. Through a conversational exchange, I hope to learn about the continuing political evolution of Nunavut – including its successes and drawbacks – from the perspective of territorial citizens, and to come away from the experience with a sense of the direction(s) that Nunavummiut would like to see their new territory go.



Healthy Living in Schools and Substance Abuse among Youth (Part 2)

License Number: 0502109N-M

Principal Investigator: Brunelle, Natacha

Affiliation: Department of Special Education
Université du Québec à
Trois-Rivières (UQTR)
Trois-Rivières, Qc, CA
Natacha.Brunelle@uqtr.ca

Number in Party: 4

Research Area: Baffin

SUMMARY

The overall objectives of the project are: To study young students' (11-18 years old) consumption of psychoactive substances in the Nunavut, the Nunatsiavut and the Inuvialuit settlement region; To gather information on contextual elements linked to the phenomenon of psychoactive substance use from the teenagers, parents, elders and leaders perspectives.

The methodology aims at associating quantitative and qualitative methods and ultimately is a mixed methods research design, which permits a better understanding of the parameters of the local situation in order to implement interventions with a global perspective. It will establish relationships between the results of the quantitative questionnaires and the enrichment of these results by qualitative research and interpretation. Following our primary objective, to establish a profile of psychoactive substances use among young students in the ages between 11 and 18, we will identify two communities in each of the three regions.

The DEP-ADO is the instrument that will allow us to achieve our quantitative data collection. We will administer it in classrooms of schools in each of the three regions. Concerning our second objective, we seek to gather information on contextual elements that underlie the consumption from the point of view of youth, families and other community members. To that end we will conduct qualitative open-ended semi-structured interviews with young students (n=2), parents (n=2), elders (n=2) and leaders (n=2) in each of the two communities of the three regions (total n = 48). The results of this study will permit a better understanding of how and why certain Inuit young people and their families abuse drugs and alcohol, and others do not.

R

This research seeks for a better understanding of the contexts of alcohol and other drug use in Nunavut, Nunatsiavut and Inuvialuit and will contribute to helping counsellors intervene more effectively with Inuit youth and families who express a need for assistance. The research report of this study will be made available in approximately three years at the place where the children were recruited and, during that same period of time, a presentation of the result of the study could be organized in the different communities involved in the research process.

As for the duration of this project, the proposed start date is September 18, 2008 and the proposed end date is March 31, 2010. Data gathering should be held between January 2009 and June 2009. As for the region of Nunavut, it is the communities of Igloodik and Pagnirtung that have been selected.



Widowers

License Number: 0300409N-A
Principal Investigator: van den Scott, Lisa-Jo
Affiliation: Arviat, NU, CA
lisajovandenscott@gmail.com
Number in Party: 2
Research Area: Kivalliq
Fieldwork Locations: Arviat

SUMMARY

The purpose of this project is to relate the experiences of Widowers in this community. What is it like to be a widower? How is that different than the experience of widowers elsewhere in the world? How does the community treat widowers? How does it change the family dynamic? These are the kinds of question which this research seeks to answer.

Methodology: I hope to do in-depth qualitative interviews, from a symbolic interactionist perspective, with widowers from Arviat with whom I am already familiar. I have chosen Arviat because it is my home. I know this community and its inhabitants. I know who the widowers are and am on acquaintance terms with them. One in particular was the husband of a friend of mine who passed away last year. These interviews will help her husband's voice and experiences be heard, although in the article the place-name will be a pseudonym and the identity of the participants will, of course, be disguised.

Socio-economic and Traditional Knowledge Studies in Relation to the Kiggavik Project Environmental Impact Assessment, Kivalliq Region

License Number: 01 047 10R-M-Amended
Principal Investigator: Ross, Susan
Affiliation: 1421356 Alberta Inc.
Calgary, AB, Canada
siross@telus.net
Number in Party: 4
Research Area: Kivalliq

SUMMARY

The purpose of the research project is to collect socio-economic and traditional knowledge information sufficient to understand community interests in the Kiggavik Project, as input to an environmental impact assessment for Kiggavik Project permitting. The Kiggavik Project is a uranium project in the Kivalliq region. A summary Kiggavik Project description is attached as Appendix B, in English and Inuktitut.

The objective of the socio-economic and traditional knowledge studies is to collect baseline data to enhance AREVA's understanding of conditions in communities potentially affected by the Kiggavik Project. The information will be used to assess potential and residual impacts of the Kiggavik Project on socio-economic conditions and resource use and to frame impact mitigation and benefit enhancement measures to be implemented by AREVA as conditions for Kiggavik Project approvals.



Community Engagement in Marine Protected Areas (MPA) Planning in the Arctic: Towards and Arctic Network of MPA's

License Number: 0101009N-A

Principal Investigator: Haider, Dr. Wolfgang

Affiliation: Resource and Environmental Management
Simon Fraser University
Burnaby, BC, CA
whaider@sfu.ca

Number in Party: 5

Research Area: South Baffin

Fieldwork Locations: Iqaluit, Clyde River

SUMMARY

The proposed research will document, evaluate and compare the MPA planning experiences of two Arctic marine protected areas (MPAs); one in the Eastern Arctic (Niginganiq National Wildlife Area) and one in the Western Arctic (Tarium Niryutait Marine Protected Area).

The primary objective of the research is to investigate and evaluate current MPA strategies in the Canadian North, while using several participatory research phases, which will allow local people who participated in the MPA planning process to reflect and provide feedback regarding their experience. The participatory research exercises will be designed to facilitate mutual learning between communities in the Eastern and Western Arctic and between communities and government agencies and will help inform future MPA processes in the Arctic and identify recommendations for creating efficiencies and greater streamlining in the planning process.

Marble Island as Cultural landscape

License Number: 0300309N-A

Principal Investigator: Sisco, Ashley

Affiliation: Carleton University
Ottawa, Ontario, CA
ashleysisco@gmail.com

Number in Party: 3

Research Area: Kivalliq

Fieldwork Locations: Rankin Inlet

SUMMARY

This thesis will explore how Inuit and non-Inuit people remember Marble Island. It will draw on both Inuit and non-Inuit (namely, European/Euro-Canadian) oral and written accounts of two specific occurrences: 1) the Inuit Marble Island creation narrative, and 2) the 1719 Knight's expedition shipwreck narrative. The purpose of this project is to conduct a comparative analysis of how the Inuit and the non-Inuit remember Marble Island.



Entrepreneurship at the Edge: Self-employment and small business activity in the remote North

License Number: 0502409N-A

Principal Investigator: Ensign, Scott C.

Affiliation: University of Ottawa
Ottawa, Ontario, Ca
ensign@telfer@uottawa.ca

Number in Party: 2

Research Area: South Baffin, Kivalliq

Fieldwork Locations: Iqaluit, Rankin Inlet

SUMMARY

Canada's most recent Territory, Nunavut, is facing and is expected to continue to see increasing economic opportunity come its way in the near future. A very real question is to what degree Nunavut's inhabitants (Nunavummiut) are ready to take advantage of this? The proposed program of research seeks to assess the ability of residents of Nunavut to harness prospects for economic prosperity.

In particular, entrepreneurial aptitude and entrepreneurial activity will be examined. Entrepreneurial behaviour represents the foundation for economic growth (Schumpeter 1950). Whether value-creating activities take place in a small business or a large multinational enterprise (e.g., mining company) both lead to job creation and generate wealth. However, evidence across time and space suggests that economies – whether small town, or continent such as Europe, Africa, or North America – experience the greatest benefit from capitalist acts that take place at a fundamental level. Small businesses generate the majority of jobs and wealth (Birch 1979, Haltiwanger 2006). Business ownership leads to self-determination, esteem, and impacts other indicators of social welfare, including health and a stable, cohesive community.

R

Our research agenda unfolds with a study whereby specific instances of entrepreneurship will be recorded in detail through face-to-face, open-ended interview. These actual small business owners' experiences (e.g., successes, failures, and challenges) will give depth to our understanding. From prior scholarship we know that entrepreneurship fosters further value-adding activities; a virtuous cycle of wealth creation ensues (Peng 2006).

There is evidence that small business ownership is dynamic and growing in Nunavut. If an entrepreneur has a favourable experience (financial stability and independence, pride, self-worth, etc.) then he or she is likely to positively reinforce others attempts to follow. Economically sustainable enterprises able to stand on their own are emerging – anecdotes are of small businesses responding to market forces.

The proposed research will be conducted in the North investigating issues that are salient to communities located in the Canadian North and will actively seek the participation of locals. We believe that this research will contribute markedly to Canada's knowledge about the North and lead to the training of the next generation of those aware of and involved in Northern issues. The inclusion of students and communities will contribute to the success of this scholarly endeavour. We believe that NSERC-SSHRC's (2000: 17) statements: "Young people in the North need to be provided with new, varied, and ongoing opportunities... Northern communities and northern Aboriginal groups are showing an increased interest in getting involved in research" affirm our study's goals.



Identity configurations and contemporary Inuit drawings in Nunavut (Canadian Arctic)

License Number: 0101309N-A
Principal Investigator: Maire, Aurélie
Affiliation: Université Laval
Québec, Québec, CA
tumitaittuq@yahoo.fr
Number in Party: 3
Research Area: South Baffin
Fieldwork Locations: Iqaluit, Pangnirtuuq, Kinngait
(Cape Dorset)

SUMMARY

This project engages in multidisciplinary research on the artistic sphere in Nunavut and aims to allow a better knowledge of Inuit artistic practices. It invites contributions based on artistic, historic, ethnographic and ethnolinguistic research focusing on the Inuit graphic expression, as well as on the discourse of the artists linked to their artistic practices, thus studying the conditions and the process of creation of works as well as the signification of the drawings. The place of graphic creation within the community and the statute of the artist will be analysed linked the semantic field of artistic creation in Inuktitut could be defined with the artists.

Representing space and time in Inuit narrative practice. A journey through Inuit literature in English; from oral tradition to prose, from poetry to rap lyrics

License Number: 0502709N-M
Principal Investigator: Visintin, Massimiliano
Affiliation: Monfalcone, , Italy
macs.visintin@gmail.com
Number in Party: 2
Research Area: South Baffin, Kivalliq
Fieldwork Locations: Iqaluit, Rankin Inlet, Arviat

SUMMARY

I am interested in many different fields of Anthropology, but I would like to concentrate on aboriginal literature, on the representation in literature both of space and of the self; on the use of words to build and rebuild the world. This is why I had no difficulties in choosing a geographical area and a subject for my thesis paper. Some of my Research

Questions are : Who are Inuit authors? Who reads their books? Who is the publisher of aboriginal books? Which is the relationship between the oral past and the written present of Inuit literature? How did the oral Inuit narrative form develop? What is the role played by literature in the construction of an Inuit identity? How do Inuit authors represent themselves, space (the relationship between Inuit and environment) and time (historical memory)? These are the questions, with which I will develop my research and build the interviews.



Inuit Knowledge and Global Climate Change in the Canadian Arctic

License Number: 0102009N-M

Principal Investigator: Mauro, Ian J.

Affiliation: School of Environmental Studies
University of Victoria
Winnipeg, Manitoba, CA
ianmauro@uvic.ca

Number in Party: 6

Research Area: South Baffin

Fieldwork Locations: Pangnirtung,

SUMMARY

The purpose of this research is to make a participatory documentary film with Pangnirtung Inuit regarding global climate change. This research film will explore Inuit knowledge regarding the complex socio-economic, cultural, ecological impacts that global warming poses for Arctic communities and will communicate this important message to stakeholders worldwide.

Recharting the Course(s) of History: Community Archaeology, Multivocality, and the Quest for Cultural Relevance in the Canadian Arctic

License Number: 0402209N-M

Principal Investigator: Griebel, Brendan

Affiliation: University of Toronto
Cambridge Bay, Nunavut, CA
brendan.griebel@utoronto.ca

Number in Party: 2

Research Area: Kitikmeot

Fieldwork Locations: Cambridge Bay

SUMMARY

My Ph.D. research explores potential roles for archaeology within Nunavut's communities. For years, archaeologists have been looking for ways to bridge their own scientific knowledge with Inuit Qaujimaqatunqangit and elder narratives about the past. By joining these forms of knowledge, it is recognized that new understandings of history can be established alongside the commitment to create projects that are relevant to both academia and Arctic communities.

Through the collaborative development of local history workshops and exhibits, educational curricula and internet-based history archives, my research seeks to not only better understand the processes and aspirations of community-based archaeology, but also to create projects encouraging the multiple voices of history to be heard.



Assessing Igloolik's Vulnerability to Sea Ice Change

License Number: 0100509R-M

Principal Investigator: Ford, James

Affiliation: Department of Geography
McGill University
Montreal, Quebec, CA
james.ford@mcgill.ca

Number in Party: 1

Research Area: South Baffin

Fieldwork Locations: Igloolik

SUMMARY

I have been working with people in Igloolik since 2002 looking at how climate change is affecting hunting and other activities, and identifying ways to help people deal with these changes. During this time I worked primarily with three local people (Kevin Qrunnut, Celina Irgaut, and Harry Ittusardjuat), interviewed approximately 100 Iglulingmiut, and made 6 main trips (one every year). I have also produced a number of reports for the community documenting the findings of the research, talked with interviewees about the findings from previous trips, and involved local people as authors on scientific reports.

The goal of the research I am proposing here is to continue this research, building upon problems and needs identified in previous work. Specifically, the project will examine in further depth the problems facing local people when they hunt and travel. More importantly, the project will build upon local concerns about the access and availability of country and store foods and the difficult in obtaining food with rising prices and changes in the animals and sea-ice. It will document the strategies being employed by local people to manage difficulties in getting food, identify who is helping local people get food, identify ways to improve food access, and assess how future climate and other changes might affect access to food in Igloolik.

The Dynamics of Human-Sea Ice Relationships: Comparing Changing Environments in Alaska, Nunavut, and Greenland (Siku-Inuit-Hila Project)

License Number: 0100709R-M

Principal Investigator: Gearheard, Shari

Affiliation: Clyde River, NU, CA
sharig@qiniq.com

Number in Party: 12

Research Area: North Baffin

Fieldwork Locations: Clyde River

SUMMARY

The purpose of this project is to create a collaborative research project where Inuit from Baffin, Inupiat from Alaska, and Inuit from Greenland can share observations, knowledge, and experiences with each other and with scientists related to sea ice, sea ice use, and sea ice change.



Natural Hazards in Iqaluit

License Number: 0100609R-M

Principal Investigator: Ford, James

Affiliation: Department of Geography
McGill University
Montreal, Quebec, Canada
james.ford@mcgill.ca

Number in Party: 1

Research Area: South Baffin

Fieldwork Locations: Iqaluit, Qikiqtaaluk

SUMMARY

Inuit and non-Inuit in Iqaluit spend significant time traveling and hunting on the land. Natural hazards including thin ice, strong winds, storms, rough seas, and deep snow occasionally claim lives and extract significant financial cost due to lost and damaged equipment. For example, between January 2000 and October 2006, according to the Office of the Chief Coroner in Nunavut, in Iqaluit there have been 7 deaths associated with land based activities and numerous accidents. Tragedies of this nature are increasingly common, with the young particularly at high risk. Many Inuit and scientists believe the dangers are increasing with climate change and will continue to do so.

The work plan being proposed will bring together scientists, Inuit, and non Inuit in the Iqaluit to: i). identify and characterize natural hazards affecting local people, ii). document if and how these hazards are changing, iii). assess how people are affected by hazards and how they manage them, and iv). find out who is at greatest risk. The ultimate aim of the research is to identify ways to reduce vulnerability to natural hazards, especially hazards that might worsen with climate change. To this end the project will document the recommendations of local people and those responsible for hazard management, and will identify practical ways in which the community can reduce the danger.

R

The research will be conducted by a research team composing locally employed Iqaluit residents and university researchers. The local research team will be involved at all stages of the research process from project design to designing a dissemination package for the community. Specific methods to be used include: interviews and focus groups with Iqaluit residents, surveys, hazard monitoring throughout the year, and collection of satellite and meteorological station data on climatic and sea ice conditions. The collection of knowledge from Iqaluit residents will follow standard procedure for working in Nunavut. All participants will be required to sign a bilingual consent form, they will have the option of remaining anonymous, the interviews will be taped and deposited in the community for safe keeping if the permission is granted, and participants will be paid according to local guidelines.

The community will be involved in the research in 4 main stages: during preliminary visits, the main research visit, analysis of information collected, and dissemination of findings to the community. The last stage is especially important, and the research team will endeavour to visit all those people who were involved in the project to discuss the findings. There will also be opportunities for local team members to attend meetings down south, to be fully funded by the project. Reports will be produced for Nunavut institutions and others with an interest in seeing the project findings and recommendations. And as with previous research conducted by Dr Ford (<http://www.arctic-north.com/JamesPersonalWebsite/>), newspaper and popular magazine articles will be produced, along with academic articles jointly authored with the local team.



The Role of Co-operative Enterprise in the Social Economy of Repulse Bay

License Number: 0300809N-A
Principal Investigator: Alsop, Jennifer
Affiliation: Carleton University
Ottawa, Ontario, CA
jenalsop@gmail.com
Number in Party: 3
Research Area: Kivalliq
Fieldwork Locations: Repulse Bay

SUMMARY

This is an exploratory research project, which will give an empirical account of the role of the coop in the social economy in Repulse Bay. The objective of this research is to produce a study of the changing role of the co-operative sector in a community in Nunavut, as it adapts to new and evolving environmental, governance, and economic realities. In focusing upon the co-operative as a tool of economic organization in these communities, I plan to determine how the 'mixed economy' of northern communities is transforming in the face of broader economic and environmental change. The term 'mixed economy' is defined as an economy in which the household, rather than the individual, is the prime unit of study, in economic terms.

Academic Struggles in Grade Ten

License Number: 0101409N-A
Principal Investigator: Mike, Shuvina
Affiliation: UPEI
Iqaluit, Nunavut, CA
smike@gov.nu.ca
Number in Party: 2
Research Area: South Baffin
Fieldwork Locations: Iqaluit

SUMMARY

My Research is on Academic Struggles in Grade Ten and will address the question: Why Do Inuit Students have difficulty around Grade Ten in Iqaluit? This research is a course requirement for the Masters of Education Program. I am going to interview two past students who recently dropped out of Grade Ten and one presently in school and one parent of these students and also one teach at the high school. I am going to write up several students/teacher/parent perspectives particularly from Inuit and southern Canadian lenses. I will describe my research and what it means for myself as a parent to find out why Inuit students often have difficulty at grade ten. Throughout the research I want to find out solutions and strategies for this for the benefit of future students.



Encourage Inuit Educators Involvement in NTA (Nunavut Teachers Association)

License Number: 0101909N-A
Principal Investigator: Kakudluk, Meeka
Affiliation: UPEI
Iqaluit, NU, CA
mkakudluk@qikiqtani.edu.nu.ca
Number in Party: 2
Research Area: South Baffin
Fieldwork Locations: Iqaluit

SUMMARY

I will be conducting a research project through the University of Prince Edward Island. The title of my research project is: Inuit Educators Involvement at NTA (Nunavut Teachers Association). I will have four participants for my interviews, educators from each region here in Nunavut. Therefore most of them will have to be interviewed by telephone. The Educators I will interview are mostly Inuit except for one, and are a mixture of short-term and long-term educators.

Communicating With Parents about Student Achievement in High School

License Number: 0300509N-A
Principal Investigator: Gibbons, Darlene
Affiliation: UPEI
Iqaluit, NU, CA
Dar_gibbons@hotmail.com
Number in Party: 3
Research Area: Kivalliq
Fieldwork Locations: Arviat

SUMMARY

Purpose: To get feedback from 3 teachers from the Levi Angmak Elementary school and John Arnalukjuak Senior school regarding the current report cards that are used to deliver to parents. Get feedback regarding the report cards from two parents whose children are attending the Senior School and two parents whose children are attending the Elementary School. We will look at the two report cards and identify which of the two would be more appropriate for parents. Once the meeting is done, I will collect the participants feedback and compile the findings to my research project.



Inuit Resilience

License Number: 0503209N-M

Principal Investigator: Williamson, Karla Jessen

Affiliation: Educational Foundations
University of Saskatchewan
Saskatoon, Saskatchewan, CA
karla.jwilliamson@usask.ca

Number in Party: 4

Research Area: North Baffin, South Baffin

Fieldwork Locations: Iqaluit, Cape Dorset, Pond Inlet

SUMMARY

The aim of the Inuit Resilience project -- part of a larger project titled Roots of resilience -- is to collect stories to help define resilience from Inuit perspectives and to identify factors that promote resilience among individuals and communities. We are looking at how Aboriginal people across Canada and New Zealand have dealt with the problems in their lives. Many people have told us about what helped them and what held them back as they coped with problems. We would like those stories to be recorded and studied so that they can help other people. The contribution from the Inuit point of view will be important for this project.

How can Inuit students be more motivated to complete their high school education

License Number: 0401909N-A

Principal Investigator: Lyall, Jessie

Affiliation: UPEI
Cambridge Bay, Nunavut, CA
jeslyall@qiniq.com

Number in Party: 3

Research Area: Kitikmeot

Fieldwork Locations: Cambridge Bay

SUMMARY

The purpose of my project is to help the Nunavut Educational System on how the teachers and educators can identify ways to motivate the high school students to complete their education. By having a focus group questionnaires and discussions will also help the other students say in their own words what type of things do motivate them to keep them in school to complete their education.



Inuit Personal Names

License Number: 0101509N-A

Principal Investigator: Kavik, Mary

Affiliation: UPEI
Sanikiluaq, NU, CA
makavik@hotmail.com

Number in Party: 3

Research Area: South Baffin

Fieldwork Locations: Sanikiluaq

SUMMARY

For my M. Ed research project, I interviewed 9 high school students. The subject of the interviews was Inuit personal names to understand how, or if, their names have strengthened their identity with Inuit culture.

Integrating Culture & Literacy in a Nunavut School

License Number: 0400609N-A

Principal Investigator: Manik, Doreen

Affiliation: UPEI
Arviat, NU, Canada
Doreen_manik@hotmail.com

Number in Party: 2

Research Area: Kivalliq

Fieldwork Locations: Arviat

SUMMARY

As part of my research, I would like to work on strengthening cultural activities with literacy in the schools. I would like to get more information from the elders and educators as to how we can strengthen programs in our school. There are modules created by the Department of Education but the themes I would look at and work on would be activities that are not part of the modules. To start the research, I would like to create a guideline with suggested themes and literacy activities. If the guideline with suggested activities is successful and useful to other educators, this could be an ongoing project by creating more themes with literacy components. I would like to focus on one theme, which is: the Iglu project. I would like to create and develop a guideline with literacy attached to it.



Together at a Distance: E-learning for the Canadian Pan-Arctic

License Number:	0503109N-M
Principal Investigator:	Childs, Elizabeth
Affiliation:	Points North Design Victoria, BC, Canada echilds@telus.net
Number in Party:	4
Research Area:	Nunavut Wide
Fieldwork Locations:	Nunavut Wide

SUMMARY

This research project is investigating the following two areas:

1. The change in access and awareness of literacy opportunities for the Inuit population in NWT, Nunavut, Nunavik and Nunatsiavut as a result of the ALLESP online workshops on e-learning.
 - a. Objectives associated with this research goal include the following:
 - i. Identification of participants level of comfort with e-learning
 - ii. Identification of participants e-learning and literacy skill improvement
 - iii. Identification of participants increased awareness of relevant e-learning opportunities, supports and motivation to pursue future e-learning
2. The capacity for facilitators and trainers to prepare adult literacy e-learning in the Pan-Arctic as a result of their participation in the ALLESP online workshops.
 - a. Objectives associated with this research goal include the following:
 - i. Identification of facilitators and trainers level of comfort with e-learning
 - ii. Identification of facilitators and trainers e-learning and literacy skill improvement
 - iii. Identification of facilitators and trainers increased awareness of relevant e-learning opportunities, supports.
 - iv. Identification of facilitators and trainers motivation to pursue, facilitate and prepare future e-learning
 - v. Identification of facilitation and workshop preparation skills for e-learning design and delivery

Methodology: Inuit from all four main Inuit population geographical areas will be approached to participate in this research project. There are three main participant audiences: (1) Inuit adult learners; (2) trainers and (3) facilitators. Depending upon the participant, they will be required to complete one or more of the online workshops created as part of the ALLESP project.

Influence of Elders in Schools

License Number:	0201209N-A
Principal Investigator:	Kavik, Lisi
Affiliation:	UPEI Sanikiluaq, NU, Canada Lkavik@qikiqtani.edu.nu.ca
Number in Party:	1
Research Area:	South Baffin
Fieldwork Locations:	Sanikiluaq

SUMMARY

My research is about the influence of Elders in schools. It is about the importance of having Elders involvement in the school environment. It is to identify the need to have Elders having contact with students of all ages within the schools. It is to argue that Elders are needed at the school level. I will conduct my research in my home community of Sanikiluaq, Nunavut.

I want to find out if having Elders in schools is important. With the new education act that states the importance of Inuit Qaujimajatuqangit be taught in Nunavut schools, I think having Elders in schools would definitely bridge that gap. I believe that teachers alone cannot possibly teach students about the culture and tradition of the Inuit without the help of Elders. It is well known that Elders are dying off along with their knowledge and wisdom, the knowledge and wisdom that would benefit all of us in our lives. Today, Elders are not often seen within the schools as a result of that I want to see more Elders within the schools.

I will conduct interviews with a focus group consisting of two female Elders, one male Elder, one non-Inuk female high school teacher who teaches social studies, one female Inuk junior high teacher and one elementary teacher. I will also be conducting individual interviews with one female Elder, one Inuk female high school teacher who teaches Inuttitut, Northern Studies and Aulajaaqut 11 and one Female high school student.



Modularizing High School Courses

License Number: 0201309N-A
Principal Investigator: Kavik, Dinah
Affiliation: UPEI
Sanikiluaq, NU, Canada
dkavik@edu.nu.ca
Number in Party: 1
Research Area: South Baffin
Fieldwork Locations: Sanikiluaq

SUMMARY

The goal of this project is to interview teachers and students about past and present experiences and thoughts about modularized courses.

What influences members of a small community in making decisions about alcohol prohibition?

License Number: 0300709N-A
Principal Investigator: Uluadluak, Nancy
Affiliation: UPEI
Arviat, NU, Canada
nuluadluak@yahoo.ca
Number in Party: 1
Research Area: Kivalliq
Fieldwork Locations: Arviat

SUMMARY

What factors influence the members of the Arviat community? Ask Elders and young people their opinions about bringing alcohol back into the community. I have decided to do a study on how the people feel and think about the effects about alcohol. I want the Elders and the adults to know what the young people think about the effects about alcohol. I want the RCMP and the teachers to know about the results of my study. I want to know how people will make their decisions about alcohol because I am concerned about their future and the next generation.



What was traditional life style back then?

License Number: 0101709N-A
Principal Investigator: Rumbolt, Mina
Affiliation: UPEI
Sanikiluaq, NU, Canada
minarumbolt@hotmail.com
Number in Party: 1
Research Area: South Baffin
Fieldwork Locations: Sanikiluaq

SUMMARY

The purpose of this research is to broaden the understanding about Inuit life and traditional life style of the past. I plan to interview two Elders for my research. This project will benefit all Nunavummiut and the community of Sanikiluaq.

R

Total Physical Response for Revitalizing Inuinnaqtun

License Number: 0402009N-A
Principal Investigator: Evyagotailak, Susie
Affiliation: UPEI
Kugluktuk, NU, Canada
sevyagotailak@gov.nu.ca
Number in Party: 1
Research Area: Kitikmeot
Fieldwork Locations: Kugluktuk

SUMMARY

The findings of this project will benefit the language revitalization of Inuktitut and Inuinnaqtun





The Role of Inuit Land Claim Organizations in the Northern Social Economy

License Number: 0102609N-A

Principal Investigator: Rodon, Thierry

Affiliation: CIERA
Université de Laval
Québec, Qc, Canada
thierry.rodon@pol.ulaval.ca

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Iqaluit, Pangnirtung

SUMMARY

In this research, we intend to analyze the role of Inuit land claims organizations (NTI and QIA) in the development of the northern social economy in Nunavut. The term ‘social covers a range of organizations, which are neither government nor the private for-profit sector.

It includes the following:

- The traditional economic relationships in aboriginal communities;
- Volunteer organizations, cooperatives;
- Community groups, non-governmental organizations, non-profit groups, and charities.

However, it has to be understood that social economy in the north has its specificities with the existence of a hunting and gathering economy but also in some regions with the emergence of a strong cooperative sector. This project is part of the Social Economy Research Network of Northern Canada (SERNNOCA). The overall goal of Social Economy Research Network of Northern Canada is to bring together researchers and practitioners working on issues relevant to the social economy in northern Canada (Yukon, Northwest Territories, Nunavut, Nunavik and Labrador). This study will first describe briefly the state of social economy in Nunavut and examine the policies and investment strategies of QIA and NTI. The most interesting experiences in developing the Northern social economy will also be identified in order to have some specific case studies.

R

In order to determine the policies and investment strategies used by NTI and QIA, we will collect and analyze the annual reports and official documents of these organizations and compare their strategy. However, to provide some insight in the strategies we will conduct interviews with officials of the selected Inuit organizations. We will also conduct interviews with the social economy organizations in Nunavut (Arctic Co-operatives, Pangnirtung Inuit cooperative). The data collected during this research will be kept in a locked office at CIÉRA, Université Laval and will be only accessible to the research team. All the interviews transcript will be de-identified (no name on it) and will be destroyed by December 2009.



Agnico Eagle (AE) Meadowbank Project-Inuit Qaujimaqatugangit (IQ) Workshop

License Number: 03 020 09N-A-Amended

Principal Investigator: Connell, Larry

Affiliation: Agnico Eagle Mining LTD
Vancouver, B.C., Canada
lconnell@agnico-eagle.com

Number in Party: 2

Research Area: Kivalliq

Fieldwork Locations: Chesterfield Inlet

SUMMARY

AE would like to hold a one and a half day IQ workshop in Chesterfield Inlet, to gather IQ on marine mammals, cabins, hunting and other local activities. IQ gathered should be incorporated into each of AE's search and rescue procedures and operations. This will help AE customize their procedures and operations so that they are reflective and respectful of local IQ values and knowledge.

Production & Practice of Weather Knowledge in Pangnirtung, Nunavut

License Number: 0101809N-M

Principal Investigator: Spinney, Jennifer

Affiliation: University of Western Ontario
London, ON, Canada
jspinney@uwo.ca

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Pangnirtung

SUMMARY

The purpose of this research is to generate a case study of the June 2008 flood in Pangnirtung, Nunavut. The goal of this research is to develop a community perspective of this event, as well as to use local knowledge to: examine the storm preparation and protection methods used by residents of this coastal hamlet, learn the multiple impacts that severe weather has on people in this community, and determine the coping mechanisms used by residents during and after this hazardous weather event. Because the storm and ensuing flood of 2008 may very well be the beginning of a permanent change in the physical and cultural landscape of this Arctic community, the community's perspective regarding this weather event will certainly shed light on the changing conditions residents of Pangnirtung experience in the Arctic.

The objectives of this study are: to identify the tools necessary for residents to prepare for future weather events, to expand upon a community initiative program whereby residents unite to assist individuals in need, and to develop the foundational groundwork so that the results generated can be used to influence and assist planners when renegotiating policies for research and/or weather forecasting and monitoring in the region. By understanding the unique environmental challenges that residents of Pangnirtung contend with, we can help to prepare for the imminent threat of future storms.



Socioeconomic and Environmental Effects on Public Behavior: The Case of Inuit Suicide

License Number: 0503709N-M

Principal Investigator: Egeni, Camilius

Affiliation: Walden University
Iqaluit, NU, CA
cegeni@gov.nu.ca

Number in Party: 2

Research Area: Nunavut Wide

Fieldwork Locations: Iqaluit, Kugluktuk, Cambridge Bay, Arviat

SUMMARY

To determine how the socioeconomic and environmental factors affect the rate of suicide among the Inuit of Nunavut. To create awareness of Inuit suicide and to instigate the development of policies that could be used to address the current Inuit high suicide rate.

Traditional Inuit Medicines

License Number: 0102109N-A

Principal Investigator: Akulukjuk, Leesie

Affiliation: UPEI
Pangnirtung, NU, CA
leesie-5@hotmail.com

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Pangnirtung

SUMMARY

I will be interviewing an Elder to obtain information and knowledge about plants and traditional uses for medicines and healing.



Finding Inuit Math: Exploring and using the mathematical knowledge embedded in the traditional and ‘everyday’ practices of Inuit in Nunavut

License Number:	010202809N-M
Principal Investigator:	Berger, Paul
Affiliation:	Faculty of Education Lakehead University Thunder Bay, Ontario, CA paul.berger@lakeheadu.ca
Number in Party:	6
Research Area:	North Baffin, South Baffin, Kivalliq
Fieldwork Locations:	Arctic Bay, Igloolik, Qikiqtarjuaq, Iqaluit, Rankin Inlet, Arviat, Chesterfield Inlet

SUMMARY

This research is meant to bring Inuit knowledge into Nunavut mathematics classrooms and to increase student well-being and success. There are three main goals.

Goals & Objectives:

- 1) This research will find many ways Inuit in Nunavut have always used mathematical knowledge in their traditional activities, and will describe these ways in an Inuit Math Reference booklet. This will help Inuit teachers and students to know that Inuit are good at math and always have been.
- 2) The research will identify ways Inuit children learn and use math in everyday life. This will help teachers make connections with their students’ lives and improve student learning. We will create curriculum from some of these practices, moving Inuit culture into Nunavut classrooms.
- 3) We will explore what taking part in the research means to the six Bachelor of Education students. This will be done through interviews and by the students writing in journals about what it’s like to conduct the research. We expect that participation in the research will support their professional development as Inuit teachers.

Preliminary reliability assessment of Inuit estimates of polar bear sex, age, and size along with age of track based on in situ track observation

License Number:	0402509N-M
Principal Investigator:	Wong, Pamela
Affiliation:	Queens University Richmond Hill, ON, CA pamela.wong@queensu.ca
Number in Party:	4
Research Area:	Kitikmeot
Fieldwork Locations:	Gjoa Haven

SUMMARY

This project builds on the development of a polar bear-activity survey which includes traditional knowledge estimates of polar bear characteristics, genetic analyses of non-invasively collected tissue samples, and multivariate analyses of digital images from tracks. The purpose of my project is to estimate reliability and accuracy of estimates of sex, age, and size, along with age of tracks made by active Inuit hunters. Based on 2008 analyses, these hunters were generally more reliable in making these estimates than non-Inuit.

This project aims to re-assess reliability and initiate analysis of accuracy of a larger group of Inuit participants in making estimates. To gain better insight into results of these analyses, we are asking for permission to interview each of these participants to collect information on their tracking ability and expertise as well as pertinent background information. If these participants are both reliable and accurate in making their estimates, the contribution of Inuit hunters to forthcoming polar bear-activity surveys will be encouraged.



Inuit Ancestral Experiential Knowledge (IQ1) and Inuit Experiential Knowledge (IQ2) Differentiated by Inutuqait (Inuit Elders)

License Number: 0402309N-A AMENDED

Principal Investigator: Karetak, Elisapee

Affiliation: UPEI
Arviat, Nunavut, CA
ekaretak@hotmail.com

Number in Party: 3

Research Area: Kivalliq

Fieldwork Locations: Arviat

SUMMARY

The purpose is to broaden my understanding of IQ1 and IQ2 knowledges, Inuit culture is unique and the Inuit Way of Thinking is also unique and it is important to articulate IQ1 and IQ2 in its true-essence as understood by the Inutuqait. The Traditional Knowledge interpretation has not been posted judiciously to the Inutuqait and the CLEY IQ Katimajit. It is my hope that the paper generations discussions of the terminologies to capture the true essence of the Inuktitut interpretation in the Government level.

The Role of Institutions in Shaping Inuit Participation in Climate Change Policy

License Number: 0503909N-A

Principal Investigator: Johnson, Noorjehan

Affiliation: Dept. of Anthropology
McGill University
Montreal, QC, CA
noor.johnson@mail.mcgill.ca

Number in Party: 2

Research Area: South Baffin, North Baffin

Fieldwork Locations: Iqaluit, Clyde River

SUMMARY

My research will examine the role of institutions in shaping responses to climate change in Clyde River and Iqaluit. I interpret ‘institutions’ broadly to include both organizations (such local associations and government agencies) as well as economic and social practices (such as capitalism and food sharing).

Through my research, I will examine what climate change means for these different institutions, how institutions interact, and how these interactions impact the creation of climate change policy. The purpose of this research is to contribute to an understanding of the role of institutions and individuals in shaping climate change science and policy.



Hazardous Weather in Iqaluit, Nunavut: Perceptions, Impacts, Vulnerabilities and Adaptations

License Number: 0102709N-M

Principal Investigator: Folliot, Jadah

Affiliation: Dept. of Geography
University of Western
London, ON, CA
jfolliot@uwo.ca

Number in Party: 4

Research Area: South Baffin

Fieldwork Locations: Iqaluit, NU

SUMMARY

This research will use local knowledge in a vulnerability and adaptive capacity framework to study the effects of hazardous weather on the people and their social and economic activities in the city of Iqaluit, Nunavut.

The main objective of the study is to increase understanding of hazardous weather through the involvement of community residents and organizations in identifying and analyzing: impacts of hazardous weather and related events; ways that residents adapt to, prepare for, and know in advance about these events. There is a focus on: adaptations to weather hazards; and vulnerabilities within the community, now and in the future

Monetary and Traditional Resources in an Inuit Ilagiit Clyde River

License Number: 0202709N-A

Principal Investigator: Harder, Miriam

Affiliation: Dept. of Geography
McGill University
Montreal, QC, CA
miriam.harder@mail.mcgill.ca

Number in Party: 2

Research Area: North Baffin

Fieldwork Locations: Clyde River

SUMMARY

Previous research demonstrates the extended family (ilagiit) to be the primary Inuit subsistence unit and the production, sharing and consumption of food resources to be guided by kinship rules. Today, Inuit have adapted to a mixed cash and traditional food economy. This new economic structure poses challenges to traditional sharing practices. Moreover, with the rising importance of money and the changing organizational structure of the extended family, an important question emerges as to whether or not this economy still functions at the traditional ideal.

My research advances our understanding of these challenges through its aim to study the flow of monetary and nonmonetary resources within the extended family. My working hypothesis suggests that when non-traditional resources are scarce, customary rules of economy may be inadequate for distributing new resources.

Building from an extensive Clyde River database, this project examines whether the changed economic situation has altered patterns of Inuit resource sharing. This is important because access to non-traditional capital is critical to the continuation of Inuit subsistence culture.



Kinships Networks: Contemporary Social Relationships Among the Belcher Islands Inuit

License Number: 01 039 09N-M

Principal Investigator: Dupre, Florence

Affiliation: Department of Anthropology
Laval University
Quebec City, Que, CA
flo.dupre@free.fr

Number in Party: 2

Research Area: Belcher Islands

Fieldwork Locations: Sanikiluaq

SUMMARY

The project is dedicated to the study of contemporary kinships among the Inuit of Belcher Islands (community of Sanikiluaq, Qikiqtani, Nunavut). My general research goal is to document the current family practices, which are today quite inexistent in the landscape of North social sciences projects. In that perspective, the research will answer two main objectives:

1. To understand the way current social relationships articulate with each other to define and identify the inuk in a complex network built by both traditional and new links. The research will focus on adoption, ritual alliances and filiations (relation with the sanaje , with the sauniq , etc.), but also on quite a new kind of relatedness such as godparenthood.
2. To introduce in the study of Inuit kinships new technologies such as internet (and the so-called “socializations websites” as “Facebook” or “Bebo”), new medical technologies or family photographs in the daily practices.

I will attempt to reach this goal by two kinds of methods:

1. An inventory of the kinship relationships of the community in collaboration with the Sanikiluarmit eager to participate to the project. This work will result in detailed genealogies which should be published in a yearbook for the community.
2. More specific and in-depth interviews with young and older parents in order to understand the contemporary social dynamics and the use of new technologies in family relationships.

R

The inventory and interviews will be realised with the collaboration of a remunerated interpreter. The participants will be paid for their help and collaboration.

The community has been chosen to participate to this research in regards to its cultural specificities due to its geographical localisation, and its social involvement. I personally know the town and the Sanikiluarmit since 3 years: the support of the Arctic College graduated teachers of the Nuiyak School to a project about family is unique.

The data provided by the project will be first used in a yearbook dedicated to genealogies that the participants will agree to publish. They will be secondly used, with the authorization of all concerned participants, for the writing of my PhD thesis, scientific articles and oral conferences. The data will be kept in a locked drawer in the CIERA laboratory of Laval University as long as any potential other use has not been decided with the community.

The participants will be proposed to receive a copy of their interviews. A copy of the consent forms will be left to the participants and to the hamlet. The genealogies yearbook will be given to the Sanikiluarmit, and any other document published about the project will be sent to the hamlet. My PhD thesis will finally be sent to the community, and translated as soon as possible in English and Inuktitut so that it can be useful at school, and for the Sanikiluarmit at large.



American and Inuit Whalers in Cumberland Sound, 1850-1918

License Number: 01 037 09R-M

Principal Investigator: Routledge, Karen

Affiliation: Department of History
Rutgers University
Hopewell, New Jersey,
United States of America
kirimsa@gmail.com

Number in Party: 1

Research Area: South Baffin

Fieldwork Locations: Pangnirtung

SUMMARY

I am applying to do research in Pangnirtuuq in order to learn more Inuit stories about the whaling days. My PhD dissertation is about Americans and Inuit living in each other's homelands in the late 1800s and early 1900s, and two of my chapters are about whaling in Cumberland Sound.

I have read a lot of records written by qallunaat whalers, but these don't tell me much about the Inuit who helped the Americans and worked with them. I am especially interested in learning about the Cumberland Sound environment and seasons, how Inuit lived off the land, how they hunted whales, how they interacted with the qallunaat whalers, and any stories about Inuit who visited the United States on whaling ships.

Oral Tradition and Material Culture of the Inuit of Nunavut

License Number: 01 046 10R-M

Principal Investigator: Gadoua, Marie-Pierre

Affiliation: Department of Anthropology
McGill University
Montreal, Quebec, Canada
marie-pierre.gadoua
@mail.mcgill.ca

Number in Party: 2

Research Area: Baffin Island

Fieldwork Locations: Iqaluit, Pangnirtung, Igloolik

SUMMARY

This research addresses the meaning of Canadian Inuit material culture through the investigation and recording of Inuit elders' traditional knowledge. More specifically, I examine the technical, social and spiritual meanings of Inuit everyday objects being used for hunting, tool-making, cooking, cloth-making, ceremonial and ritual activities, as well as personal ornamentations. I seek to understand the various meanings of traditional objects to Inuit individuals, their use, their places in Inuit daily lives, activities and thoughts, the values given to them and the memories associated with them.



Collectionism of Inuit Art

License Number: 01 042 09N-A
Principal Investigator: Duchemin-Pelletier, Florence
Affiliation: University of Paris
Paris, , France
duchemin.florence@wanaoo.fr
Number in Party: 2
Research Area: South Baffin
Fieldwork Locations: Cape Dorset

SUMMARY

My thesis deals with the collectionism of Inuit Art in France from 1960 to our days. I aim at understanding what is the perception of Inuit people and their art in my country. Addressing different aspects, I will in the first place make an history of the French taste for Inuit culture.

A large part of my work will be devoted to the French collectors of Inuit art. Through the interviews I am currently holding, I analyze which are the different kinds of collectors (casual / long-time collectors) and what affinities they share with Inuit art. Some of them collect Inuit art because they reject the actual western creation. Others admire both and would like to see Inuit artists breaking the tradition and going towards new grounds.

This leads me to the third part of my work and why I need to collect information and testimonies in Nunavut. The number of collectors who are looking for innovative Inuit artists remains limited in France. Most of the buyers, especially the casual ones, are more interested in the depiction of the old ways, in things they call “more authentic”. A certain number of them seem too afraid of changes in Inuit art, they even regret the first decades of the contemporary period (50’s-70’s).

A Phenomenological Study of the Elementary School Experiences of Inuit Children who choose to remain in School and Graduate

License Number: 03 022 10N-M
Principal Investigator: Strutynski, John
Affiliation: Faculty of Education
Memorial University
St.Johns, NL, Canada
j_strutynski@kivalliq.edu.nu.ca
Number in Party: 2
Research Area: Kivalliq
Fieldwork Locations: Arviat

SUMMARY

The purpose of this research is to study those school-related factors that motivate Inuit students, who are first language Inuktitut speakers, to continue their public education in their second language until graduation. More specifically, students who were taught in their mother tongue, Inuktitut, in their early elementary years and then formally introduced to English as the language of instruction in grades three/four onward to grade twelve. This research will be of scholarly importance, as it will provide needed information that is currently lacking in this area.



PHYSICAL/NATURAL SCIENCE RESEARCH



Ferguson Lake Environmental Baseline Studies, 2008-2010

License Number: 0301109R-M

Principal Investigator: Landry, Francois

Affiliation: Rescan Environmental Services Ltd
Vancouver, BC, CA
flandry@rescan.com

Number in Party: 7

Research Area: Kivalliq

Fieldwork Locations: Baker Lake

SUMMARY

Starfield Resources Inc. is exploring a significant metals deposit located in an area of Inuit Owned Land at Ferguson Lake in Nunavut. The proposed baseline study under the current Nunavut Research Institute scientific research license includes characterizing the local water flow patterns; aquatic biology and water quality of the site; monitoring local climate, snow and groundwater and dustfall conditions; and characterisation of the local ecosystems, plant species, landforms, and soils. This work is being done to provide baseline characterization of the area associated with mine development and will compliment data previously collected in 1999, 2005, 2006 and 2007.

Canadian Arctic Buoy Program

License Number: 0202609N-M

Principal Investigator: Tremblay, Bruno

Affiliation: Atmospheric and Oceanic Sciences
McGill University
Montreal, QC, CA
bruno.tremblay@mcgill.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: Byam Martin Channel

SUMMARY

We will deploy 3 ice buoys south of the Byam Channel and north of the M'Clintock Channel at the entrance of the Viscount Melville Sound on a multi-year sea ice floe. The goal of the project is to collect data to calibrate a sea ice model of the Canadian Arctic Archipelago (CAA) to study the future sea ice conditions in the Canadian Arctic.

The buoys will be transported to the field using a Twin Otter operated by the Polar Continental Shelf Program. The buoy will be installed on the ice and have a life expectancy of 2 years. Next year, we will deploy 3 additional buoys and replace the battery in the buoys deployed this year. The buoy may also be lost in a sea ice ridge or drift in a location where maintenance is not possible. One the three buoys is a drifting buoy which tends to wash ashore and be picked-up by passing vessels. The deployment program is funded for 5 years – which means that we will perform such deployment for the next 5 years.



Peregrine Diamonds Ltd. Chidliak Property 2009 Baseline Environmental Studies

License Number: 0102909N-A

Principal Investigator: Moore, Steve

Affiliation:
EBA Engineering Consultants Ltd.
Yellowknife, NT, CA
smoore@eba.ca

Number in Party: 3

Research Area: South Baffin

Fieldwork Locations: Peregrine Diamonds Chidliak
Camp, Iqaluit, Pangnirtung

SUMMARY

Peregrine Diamonds Ltd. retained EBA Engineering Consultants Ltd. (EBA) to conduct environmental baseline studies at their proposed Chidliak project site, approximately 100 km northeast of Iqaluit, Nunavut. The proposed project will involve the following field studies: preliminary hydrology measurements, a preliminary habitat study, and wildlife surveys.

The 2009 field studies will be conducted over two short events in July and September. Each sampling event will be less than a week in duration. A small team of one biologist and one local research assistant will conduct these field studies in July and September; one research assistant per field event. A local research assistant from the two nearest communities, Iqaluit and Pangnirtung, are currently being sought.

The Ecology of Nunavut Aquatic Systems

License Number: 0503409R-M Amended

Principal Investigator: Quinlan, Dr. Roberto

Affiliation: Department of Biology
York University
Toronto, ON, CA
rquinlan@yorku.ca

Number in Party: 4

Research Area: Nunavut Wide

Fieldwork Locations: Repulse Bay, Rankin Inlet, Arviat,
Iqaluit, Baker Lake Area

SUMMARY

The Canadian Arctic contains a vast multitude of lakes and ponds which have served as important sources of food and freshwater for indigenous peoples and which continue to yield valuable scientific information about environmental conditions. For the 2009 field season, our research will focus on research in several Nunavut communities (Repulse Bay, Rankin Inlet, Arviat, and Iqaluit). Data from lakes along a landscape gradient (using the metric of 'lake order' for lake landscape position) will be collected. Each lake will be sampled for water chemistry, zooplankton, benthic invertebrates, and aquatic algae.

During my 6 weeks in Iqaluit, our research team will collect field samples for the Arctic Benthic Biomonitoring Network, a community-based invertebrate stream sampling project that is an ongoing collaboration between York University and the Nunavut Research Institute. While this research attempts to create appropriate lake sampling methods, this joint project develops stream sampling protocols that can be used by local community groups in the future.

Employing the kick-and-sweep method, invertebrates will be collected in a 500um mesh Dip Net and preserved in 95% ethanol. In addition, a variety of water chemistry and sediment quality variables will be measured. The organisms collected will be identified to the genus level where possible statistics will be employed to determine which variables are responsible for controlling species distributions. Lakes and ponds will be traversed by inflatable zodiac, and temperature monitors (deployed in 2007) will be collected from study lakes in the Baker Lake region.





The PolarDARN Component of SuperDARN

License Number: 0301509R-M

Principal Investigator: Sofko, George

Affiliation: Department of Physics
and Eng. Physics
University of Saskatchewan
Saskatoon, SK, CA
George.Sofko@usask.ca

Number in Party: 3

Research Area: Kivalliq

Fieldwork Locations: Rankin Inlet

SUMMARY

The purpose of the SuperDARN (Super Dual Auroral Radar Network) program is to study “space weather”. This has become very important, because there are now over 800 satellites in the dangerous space weather environment, and many of these satellites provide telecommunications links, through which international banking, TV transmissions, phone links, internet and other important information are transmitted over long distances (for example, to the north) and between countries. Furthermore, human beings - astronauts and space tourists – are entering space in increasing numbers. The space weather can be studied using HF (high-frequency) radars, such as the SuperDARN/PolarDARN radars, because these radars measure the voltage patterns in space. Just as “normal” weather systems are driven by high and low pressure patterns, space weather is driven by high and low voltage patterns. The PolarDARN radars at Rankin inlet and Inuvik are particularly important, because the magnetic field lines of the Earth have a special nature in the “polar cap” region in northern Canada.

The Rankin Inlet radar collects a large amount of data about space weather on 16 radar beams, with a sweep of beams done every minute. Through internet connections provided by Sakku Arctic Technologies at Rankin Inlet, the data is transmitted to the University of Saskatchewan, which is the worldwide center

R

for the copying and distribution of SuperDARN data to the 10 countries which operate the 21 radars that presently exist in this international project. The Rankin Inlet radar began operating on May 11, 2006, and is one of the most successful of the 21 radars in the SuperDARN network in terms of the amount and quality of the data gathered. We hope to operate the radar there for many years, just like any weather station. Several scientific publications are already being prepared on the early results, and many more will be forthcoming as the new 11-year sunspot cycle becomes more active (conditions in early 2008 are very quiet because the new sunspot cycle 24 is just beginning) until reaching a maximum in 2011 or 2012.



Hydrological Baseline Assessment of the Kiggavik Project

License Number: 0301409N-A
Principal Investigator: Topp, Brent
Affiliation: Golder Associates Ltd.
Saskatoon, SK, CA
btopp@golder.com
Number in Party: 6
Research Area: Kivalliq
Fieldwork Locations: Baker Lake

SUMMARY

The Kiggavik Sissons Project is a uranium surface exploration project located approximately 80 km west of Baker Lake. The project is made of two large groups of mining leases and mineral claims subdivided into Kiggavik to the north and Sissons to the south.

The Kiggavik camp was first established in 1977 and it was occupied for drill programs until 1997. Exploration drilling has not taken place at the project since the end of the 1997 field season. The focus of the hydrological assessment is gather baseline streamflow and lake water level information from drainage areas in the Kiggavik-Sissons area.

Influence of liquid water on biological activity in Arctic soil

License Number: 0202809N-A
Principal Investigator: Siciliano, Steven
Affiliation: Department of Soil Science
University of Saskatchewan
Saskatoon, SK, CA
steven.siciliano@usask.ca
Number in Party: 4
Research Area: North Baffin
Fieldwork Locations: Alexandra Fjord, Resolute Bay

SUMMARY

Data collected both in 2008 and 2009 will be used to further understanding of global greenhouse gas processes, and to refine current models of global warming and climate change.

This proposed 2009 field research builds on the 2008 field season with a specific focus on how soil consumption and production processes influence greenhouse gas flux from Arctic ecosystems. In 2008, we only measured net flux and did not measure gross production and consumption in the soil. Thus, we do not know why certain ecosystems are responding more rapidly to climate change than others. For example, net nitrous oxide release from a soil is due to nitrous oxide production by nitrifiers, fungi and denitrifiers and nitrous oxide consumption by denitrifiers. Similarly, methane release is due to methanogens producing methane and methanotrophs consuming methane. The purpose of the 2009 field season is to quantify the rates of nitrous oxide and methane production and consumption in the seven different ecosystems present at Alexandra Fjord.

The objectives of this year's High Arctic field season are to 1. Measure greenhouse gases at four depths in the soil and seven different ecosystems at Alexandra Fjord; 2. Determine if fertilization and global warming has altered greenhouse gas processes; 3. Determine net ecosystem carbon dioxide flux from ongoing International Tundra Experiment (ITEX) projects using a modified FTIR system.



Coastal natural hazard and habitat mapping, Arctic Bay, Nunavut

License Number: 0203709N-A

Principal Investigator: Edinger and Trevor Bell, Evan

Affiliation: Department of Geography
Memorial University
St. John's, NL, CA
eedinger@mun.ca, tbell@mun.ca

Number in Party: 4

Research Area: North Baffin

Fieldwork Locations: Arctic Bay

SUMMARY

Terrestrial and marine natural hazards and nearshore habitats surrounding the community of Arctic Bay will be investigated and mapped during the summer of 2009. Natural hazards such as coastal erosion, permafrost degradation, landslides and rockfalls have the potential to directly and indirectly affect residents of northern communities. These hazards also may affect marine plants and animals living in nearshore areas through increased sedimentation and habitat instability, or through decreased water quality. Our research in 2009 will follow up preliminary studies of terrestrial natural hazards surrounding Arctic Bay (Bell and St.-Hilaire, 2006), and nearshore marine echosounding using multibeam sonar (CHS, 2008). Specifically, we will map nearshore environments, both above and below the waterline, identify natural hazards, especially coastal erosion, landslides, and permafrost degradation, and measure the diversity and species composition of shallow marine plants and animals.

Particular emphasis will be placed on mapping the biota, hazards, and potential impacts of hazards in areas that community members use for fishing, sealing, and other marine resource use. Arctic Bay was selected for this study because it has documented coastal erosion, and forms a good complement to previous similar studies in the western Arctic (Sachs Harbour NWT, Gjoa Haven, NU, see Belliveau et al., 2005, Brown et al. 2006).

Transportation within the community will be on foot, or by ATV along established paths. Transportation on the water will be by speedboat piloted by members of the community.

No temporary or permanent structures will be erected, and no restoration or abandonment plans are necessary.

Helicopter electromagnetic measurements of the sea ice mass balance

License Number: 0202209R-M

Principal Investigator: Haas, Christian

Affiliation: Department of Earth and
Atmospheric Sciences
University of Alberta
Edmonton, AB, CA
Christian.Haas@ualberta.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: Lincoln Sea

SUMMARY

The planned work will study changes of the sea ice mass balance as a result of variations of the thermodynamic and dynamic boundary conditions for ice growth, melt, and deformation, including the role of the snow cover. The focus of my research is the establishment of long-term, systematic ice mass balance observations of thick multi-year ice in the Arctic Ocean between the coast of Canada and the North Pole. These observations will include biennial airborne electromagnetic measurements of the seasonal and interannual ice thickness variability, as well as observations of ice deformation and snow properties. In-situ measurements will be complemented by satellite remote sensing and modeling work, and will contribute to the validation of new satellite products and model results.

The research is significant as the areal coverage of Arctic sea ice is rapidly decreasing, at a pace much faster than predicted by any climate model. This demonstrates our limited understanding of climate processes and feedbacks in the Arctic. The disagreement can partially be explained by a misrepresentation of the sea ice mass balance in existing climate models, which is largely due to a general lack of systematic ice thickness observations in the Arctic Ocean.



Landscape ecology and disturbance in arctic intertidal zones

License Number: 0103309N-A

Principal Investigator: Grant, Jon

Affiliation: Department of Oceanography
Dalhousie University
Halifax, NS, CA
jon.grant@dal.ca

Number in Party: 6

Research Area: South Baffin

Fieldwork Locations: Iqaluit, Pangnirtung

SUMMARY

Arctic intertidal areas are subject to a variety of stress including low air temperature, ice scour, a short production season, and glacial outwash. Many areas in the Canadian Arctic have a large intertidal zone, providing important ecosystem services such as food for migrating birds, shoreline protection, and various types of vegetation. Sea-level rise and increasing temperature due to climate change may place additional stress on intertidal flora and fauna. Although most arctic regions are thinly populated, local urbanization exerts further disturbance on the intertidal through pollution. The marine environment is challenging because the habitat 'landscapes' are either underwater or not visible (e.g. subtle changes in elevation).

The Canadian Healthy Oceans Network (CHONe) is mandated to examine the relationships between physical habitat and biodiversity/ecosystem function in all of Canada's oceans. Iqaluit is particularly important as a CHONe site for its arctic location but also due to the town influence on the local marine environment. Samuelson (2001) studied sewage pollution and small sediment animals (worms) at several intertidal sites near Iqaluit. We recognize that since her studies, sewage release is greatly reduced, providing an opportunity to examine recovery of arctic marine sites from stress, and their relationship to landscape features of the intertidal. Pangnirtung provides a second opportunity to examine the effects of residential and urban settlement on the Arctic nearshore.

Canadian Gravity Standardization Network Modernization-Northern Surveys

License Number: 01 036 09N-M

Principal Investigator: Henton, Joseph

Affiliation: Geodetic Survey Division
Natural Resources Canada
Sidney, BC, CA
jhenton@nrcan.gc.ca

Number in Party: 5

Research Area: Nunavut Wide

Fieldwork Locations: Alert, Baker Lake, Eureka, Igloolik, Iqaluit, Kugluktuk, Qikiqtarjuaq, Resolute Bay

SUMMARY

This work is part of a larger national activity that provides the framework for an updated CGSN and will ensure that Nunavut maintains a consistent gravity reference datum common with Canada. The 2009 AG field campaign will focus primarily on Northern Canada and includes measurements at 8 gravity sites within Nunavut: Alert, Baker Lake, Eureka, Igloolik, Iqaluit, Kugluktuk, Qikiqtarjuaq, and Resolute. These AG survey sites were prioritized because they are co-located with other existing geodetic infrastructure such as GPS and tide gauges.

For this project, 2 or 3 persons will travel by aircraft with approximately 800kg of survey equipment including the absolute gravimeter. The measurements will each be carried out within the community and all travelling survey staff will use local accommodations. The AG requires a continuous 24-hour series of observations and may be operated within a tent. The survey instruments are all portable and will be removed following any measurement. Therefore no significant short or long-term negative impacts would be anticipated from these surveys.



Hall Peninsula, Nunavut Aeromagnetic Survey

License Number: 0103209N-A-Amended

Principal Investigator: Miles, Warner

Affiliation: Geological Survey of Canada
Natural Resources Canada
Ottawa, ON, CA
wmiles@nrcan.gc.ca

Number in Party: 3

Research Area: South Baffin

Fieldwork Locations: Hall Peninsula

SUMMARY

The purpose of the airborne survey is to acquire high-resolution aeromagnetic data. Aeromagnetic surveys measure magnetic properties of bedrock and are one of the tools used in geological mapping. The bedrock may contain mineral deposits, such as gold, copper, lead, zinc, and diamonds.

Understanding the geology will help geologists map the area, assist mineral exploration activities, and provide useful information necessary for communities, aboriginal associations, and government to make land use decisions. This potential future ground-based geological mapping and to provide basic information to support mineral exploration.

The method of transportation for this survey will be fixed-wing aircraft. No permanent or temporary structures will be erected during the survey. The survey's activities and personnel will use only existing municipal airport facilities and accommodations. Restoration and abandonment plans are not required.

Mercury and other contaminants in arctic char from lakes near Resolute Bay (Cornwallis Island)

License Number: 0204109R-M

Principal Investigator: Muir, Derek

Affiliation: Environment Canada
Burlington, ON, CA
derek.muir@ec.gc.ca

Number in Party: 7

Research Area: North Baffin

Fieldwork Locations: Resolute Bay Area, Cornwallis Island

SUMMARY

Purpose: The purpose of this project is to study changes in amounts of contaminants over time in lakes in the Canadian arctic. We have been studying contaminants in fish and water quality in selected lakes, including Amituk, Char Lake and Resolute Lake, since 1997 with the help of the Community of Qausuittuq (Resolute Bay) and support from the Polar Continental Shelf Project (PCSP). We are trying to understand how contaminants such as mercury and PCBs move through the food web and how they end up in landlocked char in nearby lakes. Also we are determining trends over time for mercury and other contaminants by combining results of measurements for the current year with those from earlier years. We are also interested in links to climate warming, because it may lead to more contaminants (e.g. mercury) in the lakes. (2008 NRI Research License No. 0203808R-M).

Goals and objectives for 2009: Our goal for the 2009 field season is to sample 4 lakes in the Resolute Bay area and two on Melville Island. If weather and helicopter time is available we would include one lake on Devon Island and one on Somerset Island (see lakes listed in the application).





Flashline Mars Arctic Research Station

License Number: 0203109R-M

Principal Investigator: Zubrin, Robert

Affiliation: Mars Society
Lakewood, CO, USA
zubrin@aol.com

Number in Party: 7

Research Area: North Baffin

Fieldwork Locations: Haughton Crater, Devon Island

SUMMARY

The Mars Society is a private international society dedicated to furthering the human exploration and settlement of the planet Mars. In July 2000, the Mars Society established a research facility at the Mars-like Haughton impact crater site on Devon Island, called the Flashline Mars Arctic Research Station (FMARS). Designed to simulate a landed spacecraft on Mars

The Mars Society is a private international society dedicated to furthering the human exploration and settlement of the planet Mars. In July 2000, the Mars Society established a research facility at the Mars-like Haughton impact crater site on Devon Island, Nunavut, called the Flashline Mars Arctic Research Station (FMARS). Designed to simulate a landed spacecraft on Mars, the FMARS project serves three goals:

- 1) To provide a testbed for studying the many aspects of field exploration operations on a human mission to Mars.
- 2) To provide a capable field research laboratory to help further our understanding of the Arctic, the Earth, Mars, and the possibilities and limits of life on our planet and beyond.
- 3) To inform and inspire people around the world to greater interest in space and science by bringing before them in a tangible form the vision of human exploration of Mars.

The research program carried out at the FMARS is unique. For four to five weeks, a six person crew of scientists and engineers attempts to conduct a sustained program of field exploration in Devon Island's polar desert, while working under the same operational constraints as a human expedition exploring Mars.

R

The crew lives in a combination habitat/laboratory module that is an architectural duplicate of a Mars mission unit. Anyone leaving the station to do field research needs to wear a simulated spacesuit, that limits the mobility, agility, dexterity, and sensory abilities of the wearer much as a real spacesuit would, and communication between EVA team members separated by more than a few feet has to be done by suit radio. While in the station, crewmembers also perform laboratory analysis of samples brought in from the field, repair equipment, write reports (which are exchanged with Mars Society's Mission Support group via a satellite link that imposes a Mars-like delay on communications), and engage in the chores of daily life living together as a team.

The purpose of conducting such simulated operations is to gain essential knowledge of Mars exploration tactics, human factors issues, and engineering requirements – in short, to start learning how to explore Mars.



Chesterfield Inlet, Nunavut Aeromagnetic Survey

License Number: 03 019 09 N-M t

Principal Investigator: Miles, Warner

Affiliation: Geological Survey of Canada
Natural Resources Canada
Ottawa, ON, CA
wmiles@nrca.gc.ca

Number in Party: 3

Research Area: Kivalliq

Fieldwork Locations: Chesterfield Inlet, Rankin Inlet,
Whale Cove

SUMMARY

The purpose of the airborne survey is to acquire high-resolution aeromagnetic data. Aeromagnetic surveys measure magnetic properties of bedrock and are one of the tools used in geological mapping.

The bedrock may contain mineral deposits, such as gold, copper, lead, zinc, and diamonds. Understanding the geology will help geologists map the area, assist mineral exploration activities and provide useful information necessary for communities, aboriginal associations and government to make land use decisions.

This potential future ground-based geological mapping and to provide basic information to support mineral exploration. The method of transportation for this survey will be fixed-wing aircraft. No permanent or temporary structures will be erected during the survey. The survey's activities and personnel will use only existing municipal airport facilities and accommodations. Restoration and abandonment plans are not required.

Industrial Minerals, Limestone (carbonate) resources, Southampton Island

License Number: 0301609N-A

Principal Investigator: Zhang, Shunxin

Affiliation: Canada-Nunavut Geoscience Office
Natural Resources Canada
Iqaluit, NU, CA
shzhang@nrca.gc.ca

Number in Party: 3

Research Area: Kivalliq

Fieldwork Locations: Coral Harbour

SUMMARY

The primary objective of the project is to provide the detailed information about stratigraphy, petrography and geochemistry of selected limestone resources. The intended outcome is an assessment of the industrial mineral (carbonate) potential in the Coral Harbour area. The Hamlet of Coral Harbour would benefit directly from this project-reagent grade lime will be required at up to three new or planned mines in the Rankin Inlet-Baker Lake corridor; the limestone near Coral Harbour is strategically located within barging distance of mining projects in the Kivalliq Region.



Environment Canada Arctic Municipal Wastewater Research

License Number: 0204209N-A

Principal Investigator: Kelly, Mary

Affiliation: Environment Canada
Government of Canada
Yellowknife, NT, CA
mary.kelly@ec.gc.ca

Number in Party: 6

Research Area: Qikiqtani, Kitikmeot

Fieldwork Locations: Pond Inlet, Taloyoak

SUMMARY

Environment Canada is conducting a wastewater-sampling program across the Northwest Territories, Nunavut, Northern Quebec, and Northern Labrador. The objective of this research is to assess the performance of lagoons and wetlands in the treatment of municipal wastewater in Canada's Arctic. For 2009, the goal is to conduct an intensive sampling program at 5-10 municipal lagoons.

Assessing the use of natural and constructed wetlands for wastewater treatment in the Kivalliq

License Number: 03 021 09N-A

Principal Investigator: Wootton, Brent

Affiliation: Centre for Alternate Wastewater
Treatment
Fleming College
Lindsay, ON, CA
bwootton@flemingc.on.ca

Number in Party: 6

Research Area: Kivalliq

Fieldwork Locations: Baker Lake, Chesterfield
Inlet, Whale Cove

SUMMARY

Researchers at the Centre for Alternative Wastewater Treatment, Fleming College, are studying the performance, efficacy and functioning of existing natural wetland treatment systems in six communities in Nunavut and examining the chemical, physical and microbial processes occurring in treatment wetlands in cold climates.



Astronomical Site Testing on Ellesmere Island

License Number: 0201107R-M

Principal Investigator: Steinbring, Eric

Affiliation: National Research Council
Herzberg Institute of Astrophysics
Victoria, BC, CA
eric.steinbring@nrc-cnrc.gc.ca

Number in Party: 4

Research Area: North Baffin

Fieldwork Locations: Ellesmere Island

SUMMARY

Astronomy requires clear, dry, cold skies. So, not surprisingly, telescopes have been built on some of the most remote mountains on Earth, to get above the clouds and away from the pollution of cities. It is thought that the best views of the cosmos may come from mountaintops in the Canadian high Arctic. Four in the Yelverton Bay area seem to be particularly good. Satellite images confirm this. But that needs to be verified by measurements from the mountain peaks themselves. We propose placing a small robotic weather station on three of these. The station also has a camera which would make pictures available on the internet via satellite. Everything is wind powered. Each station is about the size of a person, and in some sense is like an inukshuk. It acts as a path-finder, pointing to a good place to see the stars.

To minimize environmental impact, we would place the stations by helicopter, setting up camp on the Bay for 10 days or less. We would fly in and out by Twin Otter: one scientist, one technician, and two students, one of whom would also be a local guide. Over the winter the students would use the pictures to decide if the skies are clear enough. If they are not, the stations would be removed, possibly as soon as next summer. If conditions are good we would hope to continue for at least another season, to see if it makes sense to place a telescope on one of the mountains. At the moment there are no plans for this. And any plan for a large research telescope would take many years to develop, allowing for ongoing consultation with local communities. But if realized, it could bring forefront technology to Nunavut, enhance educational opportunities, and provide construction activity, all within a project that wants to preserve the pristine and unique environment of the region.

Mapping Mantle Diamond Potential/ Churchill Diamonds

License Number: 0504109R-M

Principal Investigator: Snyder, David

Affiliation: Natural Resources Canada
Ottawa, ON, Canada
dsnyder@nrcan.gc.ca

Number in Party: 5

Research Area: Nunavut

Fieldwork Locations: Igloolik, Rankin Inlet, Arviat, Baker Lake, Coral Harbour, Kimmirut, Cape Dorset, Pangnirtung

SUMMARY

The objective of this study, begun in the NWT in the late 1990's, is to investigate the structure and composition of the Earth's crust and mantle to depths of 0-300 km with a view to characterizing diamond reservoirs to make diamond exploration more efficient and low impact. The research will lead to improved mineral exploration strategies, improved estimates of damaging large earthquakes, and a superior framework for handling Canada's natural resource potential over the next decade. Recordings of the arrival of earthquake waves provide the highest resolution and lowest impact way of imaging structures deep in the Earth.

Seismic stations will be installed via helicopter or chartered plane at various sites in the survey area - a corridor along the western coast of Hudson Bay between Churchill and Pond Inlet. Many stations will be located near existing mines or exploration camps such as those near Rankin Inlet and Igloolik. The stations, each of which will be deployed for between three and five years consist of a geophysical sensor, satellite dish, solar panels and battery/electronics boxes deployed on sand or flat bedrock. Seismic waves from earthquakes around the globe will be recorded by the sensor and transmitted to the University of Western Ontario using satellite telemetry link (same as television signals). From there, the data will be distributed to researchers by way of the internet at the site www.polarisnet.com.

Magnetotelluric stations measure Earth conductivity over several days and consist of an electronics box and five sensors. Sites are located in gravel as sensors must be buried to form a cross 100m in length.



The Resolute Bay Observatory

License Number:	0200209R-M
Principal Investigator:	Kelly, John
Affiliation:	SRI International Menlo Park, CA, USA John.Kelly@sri.com
Number in Party:	10
Research Area:	North Baffin
Fieldwork Locations:	Resolute Bay

SUMMARY

The Resolute Bay Observatory (RBO), previously known as the Early Polar Cap Observatory, is the most northern polar cap facility funded by the United States National Science Foundation (NSF). The RBO is of considerable importance to the upper atmospheric science community and provides the necessary infrastructure for housing instruments that collect data used by scientists world wide for continued research investigating the Sun's influence on our planet's atmosphere.

SRI International (SRI) designed and built the facility in 1992 with a contract to a Canadian-based construction company. SRI has since operated, maintained and coordinated the scientific endeavors at the RBO for the NSF. The observatory is located on 11,640 m² of land that is leased for 20 years from the Resolute Bay Airport on Cornwallis Island. It is approximately 5km North East of the Resolute Bay Airport and positioned approximately 40 m below a hilltop, providing excellent shielding for sensitive receivers systems and blockage of light from the airport community. The facility is approximately 427 m² with half of it being used for housing scientific instruments and the other half used for visitors' quarters. There are three darkrooms for optical instruments, including roof hatches, with a total of four domes, and a support room adjacent for experiments and the associated data acquisition systems. The facility is powered alternately by two 50 kW diesel generators. The RBO is operated and maintained without a permanent site crew. The required on-site support, such as logistics, technical support, routine maintenance and daily site inspections, is provided by subcontracting to a local company in Resolute Bay.

Ongoing scientific investigations at the RBO use optical instruments, both passive and active radio frequency instruments, by scientists whose goals include a wide variety of investigations, using the following instruments, listed with their Principle Investigator.

DRDC Northern Watch Technology Demonstration Project

License Number:	0203809R-M
Principal Investigator:	McCoy, Nelson
Affiliation:	Defence R&D Canada-Atlantic Dartmouth, NS, Canada nelson.mccoy@drdc-rddc.gc.ca
Number in Party:	10
Research Area:	North Baffin
Fieldwork Locations:	Devon Island

SUMMARY

With the prospect of an open sea route through Canada's Arctic, the Federal Government has stated that Arctic sovereignty is a priority. The Northern Watch Technology Demonstration (NWT D) project was initiated to identify and characterized combinations of sensors and systems for cost effective surveillance of the unique maritime environment of the Canadian Arctic. Such Surveillance is required for an effective understanding of activities and events in the North that could affect Canada's security, safety, economy and/or environment.

To achieve the objective, three annual trials and experiments will be carried out in Barrow Strait, Nunavut during late August and early September. These tests involve both underwater and land-based sensors. The underwater portion involves deploying four bottom-mounted arrays that include acoustic magnetic, and electric field sensors with a 10 km long sub-sea cable to the old Defence Research camp at Gascoyne Inlet, which will be expanded by one or two shelters. Land-Based sensors include a marine navigation radar, an Electro-Optical (EO) system, and Electronic Intelligence (ELINT) receiver and an Automatic Identification System (AIS). The land based portion will be housed in a portable structure on top of Cappe Liddon and a very low power HF beacon will be mounted on the Brodeur Peninsula.



Permafrost Monitoring - High Arctic Observations

License Number: 0201809N-M

Principal Investigator: Smith, Sharon

Affiliation: Geological Survey of Canada
Ottawa, Ontario, Canada
ssmith@nrcan.gc.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: Eureka

SUMMARY

The project consists of servicing an existing research site on Ellesmere Island where permafrost temperatures are being recorded. This observatory is one of the northernmost in the circumpolar arctic and the continued long-term operation makes an important contribution to monitoring and understanding, both nationally and internationally, the response of permafrost to climate change. Additional monitoring sites will be established near Eureka to improve understanding of the spatial variation in permafrost conditions.

With authorization from the National Energy Board, the Geological Survey of Canada has maintained ground temperature observation equipment in the former hydrocarbon exploration well at Gemini since 1992. A 60 m temperature cable connected to a data logger is installed inside the wellhead. Data retrieval and equipment servicing was done in 1992 and 1994, 2000 and 2003. Funding acquired through the Canadian Government's International Polar Year (IPY) Program is being utilized to retrieve data and perform data logger maintenance in summer 2009. Up to 6 additional monitoring sites will be established at increasing distance (250 to 4000m) from the shoreline at Eureka (and possibly at Hot Weather Creek) to study the impact of nearshore air temperature inversions on permafrost conditions. The boreholes (10m depth) in which the temperature cables will be installed will be drilled with a small hand held drill.

Calibration and Validation of the Cryosat Radar Altimeter: Field Studies on Devon Ice Cap, Nunavut

License Number: 0200309R-M Amended

Principal Investigator: Sharp, Martin

Affiliation: Dept Earth and Atmospheric Sciences
University of Alberta
Edmonton, Alberta, Canada
martin.sharp@ualberta.ca

Number in Party: 6

Research Area: North Baffin

Fieldwork Locations:

SUMMARY

The two main objectives are 1) to differentiate seasonal elevation changes and long term changes in ice cap thickness and 2) to determine the relationship between surface elevation and changes in ice mass. Long term ice cap thickness will be calculated as the difference between stake movement and average accumulation rates. The rate of the transformation of ice to snow at each site will be estimated by measuring changes in the length of the cable attached to the bottom of a 20 m borehole and to the ice surface. The change in the length between 2004 and 2006 will indicate the magnitude of elevation change that is caused by firm compaction and not related to changes in ice mass.



The dynamic response of Arctic glaciers to global warming: A Canadian contribution to International Polar Year project Glaciodyn (IPY30)

License Number: 02 054 10R-M

Principal Investigator: Sharp, Martin

Affiliation: University of Alberta
Department of Earth and Atmospheric Sciences
Edmonton, AB, Canada
Martin.Sharp@ualberta.ca

Number in Party: 13

Research Area: North Baffin

Fieldwork Locations:

SUMMARY

The purpose of this project is to provide a better understanding of the mechanisms that control the flow rates of the Belcher Glacier. Identification of these factors should allow us to model how this glacier will respond to future climate warming and determine the impact that these changes will have on the mass balance of the ice cap as a whole.

Northern Base and Precious Metal potential

License Number: 0401809N-M

Principal Investigator: Bédard, Jean H.

Affiliation: Geological Survey of Canada
Québec, Québec, CA
jbedard@rncan.gc.ca

Number in Party: 4

Research Area: Kitikmeot

Fieldwork Locations: Booth River

SUMMARY

The project will provide an improved understanding of the geology of a body of rocks previously prospected (unsuccessfully) for nickel, copper and precious metals. We want to study how this intrusion crystallized using microscopic and chemical methods. It is unlikely that we will find an economic orebody, but by increasing our understanding of how metals move around inside such intrusions, we hope to increase the chances of mineral discoveries by the private sector, both here and elsewhere in Canada. Data and results will be presented annually at the Yellowknife geoscience forum, and translated versions of the reports and posters will be provided to nearby communities if they wish it.

There will be 4 persons camping between the 15th July and the 1st August 2009. The camp will be about 50km west of Bathurst Inlet, located on Crown land near 66 deg 47min 22sec N, 109deg 14min 56sec W. The exact location will be chosen depending on where the plane can land. The camp will be at least 1 km North of the Booth River. The plane will leave from Cambridge Bay, and no direct contact with local communities is planned during field work. We will collect 150 samples of rock (about 1 kg each) for analysis using a sledgehammer. All work will be done on foot. There will be no generator or any type of vehicle in camp, and only lantern and cooker fuel, with one jerrycan of diesel fuel to burn garbage with. Garbage will be burned in a bucket, with residues buried. The greywater sump pit and the latrine will be located as far from any body of water as possible. Human waste will be buried. When we get picked up, we will carry out all equipment and unburnable garbage.





UNCLOS Bathymetric survey

License Number: 0200509N-A REGISTRY

Principal Investigator: MacDougall, J. Richard

Affiliation: Canadian Hydrographic Service
DFO
Dartmouth, NS, CA
MacDougallR@mar.dfo-mpo.gc.ca

Number in Party: 25

Research Area: Arctic Ocean

Fieldwork Locations:

SUMMARY

Canada ratified the United Nations Convention on the Law of the Sea (UNCLOS) in November 2003 and has until December 2013 to submit evidence on the location of the outer limit of the continental shelf. UNCLOS confirms Canada's sovereign rights to manage or conserve natural resources on the continental shelf. Outside 200 nautical mile Exclusive Economic Zone (EEZ) these rights include exclusive rights to mineral and biological resources on and beneath the seabed out to the limit of the continental shelf. Article 76 of UNCLOS specifies a mechanism for defining the outer limit of the continental margins which include the shelf, slope and seafloor rise. Bathymetry, gravity and seismic data are needed to determine the outer limit of the continental shelf. Canada will submit evidence to the United Nations Commission for the Limits of the Continental Shelf (CLCS) to support the establishment of the outer limits of its continental shelf in both the Atlantic and Arctic Oceans. Receiving the recommendations of the CLCS will enhance international recognition of Canada's outer limits.

The mapping for UNCLOS is a joint responsibility of NRCan and DFO. Specifically, the Geological Survey of Canada (GSC/NRCan) is responsible for the seismic surveys, while the Canadian Hydrographic Service (CHS/DFO) is responsible for the bathymetric surveys. The first step in the Arctic is to establish the 'natural prolongation' of the continental shelf. In the winter of 2009 (February-May) the Canadian Hydrographic Service plans

R

to conduct an on-ice bathymetric survey from the Ward Hunt Island area to collect detailed bathymetry of the trench between the Alpha and Lomonosov Ridge. The data are not being collected to assess the petroleum prospects of the region. The plan calls for 3 to 5 Bell 206L helicopters supported by Twin Otter aircraft. The ice camp is required due the third year of a multiyear program.

The process involves collecting water depths by placing an echo sounder transducer on the ice and recording the information. The technique does not remove or require any physical sampling and there are no explosives or seismic activities. The process is repeated over predetermined locations on survey lines to determine the shape of the seabed. Echo sounding is based on the principle that water is an excellent medium for the transmission of sound waves and that a sound pulse will bounce off a reflecting layer (such as the seabed), returning to its source as an echo. The time interval between the initiation of a sound pulse and echo returned from the bottom can be used to determine the depth of the bottom. An echo-sounding system consists of a transmitter, a receiver that picks up the reflected echo, electronic timing and amplification equipment, and an indicator or graphic recorder. Most boats are equipped with echo sounders to measure the water depth beneath them and it is these commercial echo sounders that are being used on the ice.



Pan-Artic Measurements and Arctic Regional Climate Model Simulations (PANARCMIP) Sea Ice Studies

License Number: 0201709N-A

Principal Investigator: Strapp, Walter

Affiliation: Cloud Physics and Severe Weather
Research Section
Environment Canada
Toronto, ON, Canada
Walter.strapp@ec.gc.ca

Number in Party: 11

Research Area: North Baffin

Fieldwork Locations: Alert, Eureka

SUMMARY

Purpose: An airborne research project called PANARCMIP will study the meteorology, air quality and sea ice thickness in the Arctic.

Atmospheric Studies: Dramatic depletion of ozone and mercury in the Arctic surface boundary layer is observed annually in the spring after polar sunrise. Observations of this effect are largely limited to coastal observatories, but it is now assumed that most of the active processing takes place over the frozen Arctic Ocean where measurements are very sparse and difficult to undertake. This study will measure ozone, mercury and bromine oxide in the marine boundary layer, with the expectation of shedding more light on the conditions that lead to the depletion processes.

Soot is a critical component in atmospheric aerosols in assessing the climate impact of aerosols and atmospheric transformation. Over the Arctic, little information is available for the geographic distribution of atmospheric soot, and the radiative impact of soot is not well known. This study will measure soot and its particle size distribution to help understand the radiative impact of aerosols in the Arctic.

R

Sea Ice Studies: The rate of the Arctic summer sea ice decline is much faster than predicted by any of the Intergovernmental Panel of Climate Change model scenarios. The PANARCMIP aircraft study will provide a unique opportunity to obtain a snapshot of ice thickness in a vast region of the Arctic, and to generate an inventory of Arctic sea ice volume to obtain a full and conclusive estimate of the Arctic Ocean sea ice mass balance.

Objective: The main aim of meteorological and air quality atmospheric studies here is to improve the understanding of physical processes in the Arctic atmosphere and to use these measurements to improve the performance and parameterizations of regional and global climate models of the Arctic. The aim of the sea ice studies is to obtain a snapshot of ice thickness in a vast region of the Arctic, and to generate an inventory of Arctic sea ice volume.



Glacier and Climate Evolution of Baffin Island, Arctic Canada

License Number: 0201109N-M

Principal Investigator: Briner, Jason

Affiliation: Dept. of Geology
University at Buffalo
Buffalo, NY, USA
jbriner@buffalo.edu

Number in Party: 4

Research Area: North Baffin

Fieldwork Locations: Clyde River, Iqaluit Lakes,
Qivitoo Sea cliffs, Small ice caps

SUMMARY

The purpose of this project is to determine the glacier and climate evolution of Baffin Island on long, pre-historic time scales. Our time periods of focus are both: 1) the present, warm interglacial period that has lasted since the end of the last ice age, about 10,000 years ago, and 2) the longer period of the Ice Age that spans the last 2 million years. We have many specific goals that have evolved from our long history of research in the three study regions. We are using geological techniques to reconstruct the history of ice caps, like the Barnes Ice Cap, during the past few thousand years. We are also collecting cores of lake sediments that we use to make inferences about past climate change and glacier extent, also spanning the last few thousand years. And, we are using chemical and isotopic tracers to reconstruct the ice sheet and landscape evolution of Baffin Island since the beginning of the Ice Age.

Cumberland Peninsula Integrated Geoscience (CPIG) project

License Number: 02 050 10R-M

Principal Investigator: Sanborn-Barrie, Mary

Affiliation: Geological Survey of Canada
Ottawa, Ontario, CA
Msanborn@NRCan.gc.ca

Number in Party: 20

Research Area: South Baffin

Fieldwork Locations: Cumberland Peninsula

SUMMARY

Cumberland Peninsula, Nunavut, forms the northeastern extent of the Canadian landmass, a frontier region for resource exploration and development. The northwest corner of the peninsula is occupied by Auyuittuq National Park, a spectacular remote eco-/recreational landuse. The main part of the peninsula supports the Inuit communities of Pangnirtung (pop. 1325) and Qikiqtarjuaq (pop. 500) and between them exposes a 58,000 km² terrain with rocks of unknown age and affinity. Given the current out-dated, reconnaissance understanding of the bedrock geology - based on early 1970's, 1:500,000 scale mapping, and an absence of regional aeromagnetic, geochronological and glacial data, this region presents a significant gap in knowledge which detracts from investment. In light of newly identified diamond occurrences across eastern Nunavut, and the potential for Cu-Ni-PGE and gold in the region, the Cumberland Peninsula was targeted for geoscience mapping as part of the Geomapping of Energy and Minerals (GEMs) initiative. This northern strategy will result in better understanding of eastern Baffin Island's lithological associations, crustal architecture and mineral potential, necessary to meet the needs of the exploration industry and provide updated public geoscience for the Inuit communities of Pangnirtung and Qikiqtarjuaq.



Melville Peninsula Geo-Mapping (GEM) Project

License Number:	0503309N-M Amended
Principal Investigator:	Chakungal, Joyia
Affiliation:	Canada-Nunavut Geoscience Office Iqaluit, Nunavut, CA jchakung@nrca.gc.ca
Number in Party:	25
Research Area:	Nunavut Wide
Fieldwork Locations:	Melville Peninsula

SUMMARY

In 2009, as part of the Federal Government's Geo-mapping for Energy and Minerals program, the Canada – Nunavut Geoscience Office (CNGO) and Geological Survey of Canada (GSC) will conduct a geoscience project on Melville Peninsula, Nunavut. The primary objective of the project is to update and advance geological knowledge of the region. The project will provide up-to-date information for exploration companies working in the area, and is intended to increase the level of mineral exploration and provide benefits to Igloolik, Hall Beach and Repulse Bay. Geological mapping will be carried out over three summers (2009 – 2011). In 2009, the field crew will operate out of a helicopter supported, tent camp at the Sarcpa Lake DEW Line Station (Figure 1) and possibly, two man fly-camp(s) located approximately 150 km south of the main camp. Mapping will occur in July and August. The project will include hiring 8 to 10 field assistants from Hall Beach. The jobs will provide training in the areas of camp support, mineral prospecting and exploration. The mapping will focus on two belts of rocks called the Prince Albert and Penrhyn groups. Both are thought to have high potential for mineral deposits. The Prince Albert Group hosts volcanic rocks that have the potential for gold, base metals (copper, zinc, and nickel) and Platinum Group Element (PGEs) deposits. The Penrhyn Group has potential for gold and gemstone deposits. Recent exploration in the Igloolik, Hall Beach and Repulse Bay region has also demonstrated the occurrences of diamonds. In addition to mapping the bedrock, the surficial materials (glacial deposits) will also be mapped. The glacial deposits, called till, carry clues that can lead prospectors to a deposit. Thus, an understanding of the ice flow history is critical to mineral exploration in the region. In support of the ground-based mapping, a 45,000-line kilometre aeromagnetic survey will be flown over the central part of the peninsula in the spring (April – May) of 2009. All data will be published in the form of maps and reports through the Geological Survey of Canada and will be made available to the public as soon as they become available.

Glacier Mass Balance and Pollution Studies in the Canadian high Arctic

License Number:	0102209N-M
Principal Investigator:	David Olen
Affiliation:	Canada Centre for Remote Sensing Ottawa, Ontario, CA David.burgess@nrca.gc.ca
Number in Party:	3
Research Area:	North Baffin
Fieldwork Locations:	Devon Island, Ellesmere

SUMMARY

This is an ongoing study aimed at monitoring the mass balance and pollution levels of the Melville, Meighen, Agassiz, Devon ice caps, and the Grise Fiord Glacier. An additional component to this work will be to measure variations in flow rates of 3 glaciers on the Devon ice cap in order to understand how these glaciers will respond to future climate warming. Transportation at each site will be by snowmobile or helicopter where requested.

I. Glacier mass balance

Meteorological data will also be collected from the 11 automatic weather stations deployed as part of this network. Mass balance measurements provide an indication as to whether the ice caps under investigation are shrinking or growing in any particular year. This work will be performed out of permanent huts that exist on the Meighen and Melville ice caps, and tents on the Agassiz and Devon ice caps.

II. Snow sampling for monitoring pollution levels

Snow samples collected from each mass balance monitoring site will be returned to the GSC glaciology laboratory in Ottawa for analysis of the major pollutant ions (eg. Sulphates – acid snow) and pollen.

III. Variability in flow rates of major outlet glaciers on the Devon Ice cap

In-situ global positioning systems (GPS) will be deployed on 3 major outlet glaciers that drain the Devon ice cap. The in-situ GPS's will track the glacier's velocity on a daily basis over the course of a 2 year period of time. These data will a) provide ground validation to measurements of glacier velocity fields derived from satellite-based methods and b) quantify seasonal variations in rates of glacier flow. These data are crucial to understanding the effects of climate warming on the dynamics and mass balance of high Arctic ice caps.



Catlin Arctic Survey

License Number: 0502209N-A Reg
Principal Investigator: Cunliffe, Chip
Affiliation: Head of Operations
Catlin Arctic Survey
London, , UK
chip@catlinarcticsurvey.com
Number in Party: 4
Research Area: North Baffin
Fieldwork Locations: North of Queen Elizabeth Islands

SUMMARY

The objectives of this multifaceted project can be categorized into three areas.

1. Science - To retrieve an accurate set of snow and ice thickness data over a 1200km transect measurements using both a ground penetrating radar and daily manual drilling. It is the snow layer that is important for scientists in order for them to accurately predict when the Arctic Ocean sea ice will become only a seasonal feature.
2. Public engagement - Through daily updates from the ice, to highlight via the news media around the world the importance of the Arctic in our environment.
3. With the help of WWF, take the findings from the expedition to the next UN Climate Change Conference in Copenhagen. The team will be transported to the drop off point by the use of Twin Otter aircraft, but otherwise they will be walking/swimming (when required) to the Pole. The only structures that will be erected will be a tent of the ice team (taken down and re-erected every am/pm) and then three tents at the Floating Support Base. The Floating Support Base will be left as we found it, with all waste, empty fuel drums etc taken back out.

Climate change effects on the hydro-ecology of Northern lakes

License Number: 0201409N-A
Principal Investigator: Prowse, Terry
Affiliation: Environment Canada/Water & Climate Impacts
University of Victoria
Victoria, BC, CA
Terry.prowse.ec.gc.ca
Number in Party: 3
Research Area: North Baffin
Fieldwork Locations: Resolute, Alert, Colour Lake

SUMMARY

Climate change is projected to cause significant change to arctic aquatic ecosystems. Changes in the thickness and composition of arctic lake ice covers will produce second order impacts on lake biological productivity and ecology. The most important effects are likely to result from changes in temperature (ice growth) and precipitation (ice cover composition). While a number of models have been developed to model these changes, their validation has been stalled by lack of relevant field data. Relevant field data will be obtained by sampling of lake ice thickness during spring 2009. Sampling will commence in Resolute, NU. Transportation between sites will be by Twin Otter airplane. Transportation at field sites will be by snowmobile. No structure will be erected. Impact on lake ice environment will be minimal.



Permafrost Hydrology and Environmental Significance of Perennial Springs in the Expedition Fiord Area, Axel Heiberg Island

License Number: 02 052 10R-M

Principal Investigator: Pollard, Wayne

Affiliation: Department of Geography
McGill University
Montreal, Quebec, Canada
wayne.pollard@mcgill.ca

Number in Party: 7

Research Area: North Baffin

Fieldwork Locations:

SUMMARY

My research on the cold perennial springs on Axel Heiberg Island in the Canadian high Arctic has led to a better understanding about the unique nature of saline groundwater in permafrost. This is an ongoing study concerned with the technical analysis of several aspects of spring hydrology and geomorphology. The aims of this research are (1) to determine the origin of perennial spring flow, (2) to understand and explain processes related to the interaction between groundwater and permafrost, and (3) to describe the microbial communities associated with springs, lakes and permafrost. These efforts have contributed to a better understanding about the limits of life in cold climates and about unique physical processes that are occurring in the Arctic. This is the only research on cold perennial springs being conducted in the high Arctic. These springs have no commercial value and our research is driven entirely by scientific questions.

Monitoring Carbon Dioxide Exchange on the Arctic Tundra

License Number: 0102309N-M

Principal Investigator: Lafleur, Peter

Affiliation: Department of Geography
Trent University
Peterborough, Ontario, CA
plafleur@trentu.ca

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Iqaluit

SUMMARY

The purpose of this project is to measure carbon dioxide (CO₂) and water vapour exchanges between arctic tundra and the atmosphere. The overall goal is to determine the source-sink strength of Canadian arctic tundra for atmospheric CO₂ and to explore the potential impacts of global warming on this important exchange. To do this, we will erect a monitoring station near Iqaluit (with assistance from NRI staff) that will measure continuously these exchanges over representative tundra for the tundra growing period (summer), nominally June to late-August or early-September. The equipment is self-power by batteries and solar panels, non-destructive, and compact (one small tripod and mounts for the solar panels). Weekly visits to the site are needed to retrieve data and make manual observations of vegetation and other variables. Although to be selected as yet, we hope the exact research site will be within driving distance of Iqaluit, followed by a short hike to reach an undisturbed tundra site. Rick Armstrong of NRI has already suggested potential sites to the northwest of town; we will need to visit the area to choose the exact site. The equipment will be on-site for the duration of the project and completely dismantled at the end of the study. The most severe environmental impact anticipated will be from walking to the site on a regular basis. Depending upon collaboration with the NRI staff some small sampling of vegetation may also take place, but this is contained to a few small (<0.5 m²) plots.

The data are collected by electronic equipment, wind sensors, gas sampling devices, temperature sensors and radiometers. They are stored on flash media devices, which are regularly replaced. These data are then archived at Trent and Carleton university and after quality checking and cleaning, they will be archived in national archives (an IPY archive being coordinated by Greg Henry's IPY project with Parks Canada and in the Canadian Carbon Program (formerly Fluxnet Canada Research Network) national archive operated by Environment Canada in Saskatoon. The data are then available to the public and other research groups.

Reporting will take place through scientific reports and IPY reports. Our group is always happy to give public presentations to local groups on our research.



Landscape processes at Cape Bounty, Melville Island and North Lake, Cornwallis Island

License Number: 0200709R-M

Principal Investigator: Lamoureux, Scott

Affiliation: Department of
Geography
Queen's University
Kingston, ON, CA
lamoureu@post.queensu.ca

Number in Party: 10

Research Area: North Baffin

Fieldwork Locations: Melville Island, North Lake

SUMMARY

Our work is intended to develop a long record of past weather and river conditions using lake sediments and to determine the amount of carbon stored and released from the watershed by plants and erosion. Our work will involve obtaining sediment and water samples from the lakes and streams at Cape Bounty. We have chosen these lakes because the rivers appear to supply abundant sediment and deep lakes are needed to preserve the sediments for our research. We have been doing this work since 2003 and hope to continue for several years.

Freshwater & Marine Studies, Winter 2009, Jaynes Inlet

License Number: 0102509N-A

Principal Investigator: Quinby, Peter

Affiliation: Knight Piesold Ltd.
North Bay, Ontario, CA
pquinby@knightpiesold.com

Number in Party: 2

Research Area: South Baffin

Fieldwork Locations: Jaynes Inlet

SUMMARY

Aquatic and marine studies in winter of 2009 (roughly five days around the end of April) will address the following. Water chemistry samples will be collected through the ice in the headwater lake, the lake near the river mouth, and at various points along the river. These samples will be assessed for routine nutrients and physical parameters (pH conductivity, DO, etc.), trace metals, and possibly hydrocarbons. In addition, benthic invertebrate samples will be collected at the water chemistry sample locations. Water chemistry and benthic samples will also be taken at coastal marine locations within Jaynes Inlet.



Earth

License Number: 0201009R-M

Principal Investigator: Beauchamp, Benoit

Affiliation: Arctic Institute
University of Calgary
Calgary, Alberta, Canada
bbeaucha@ucalgary.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: Ellesmere Island

SUMMARY

Some 251 million years ago, 95% of living creatures that secreted a carbonate skeleton became extinct. This was the largest of such mass extinctions in Earth history. There are many hypotheses to explain the extinction. Some of them invoke a rapid cataclysmic scenario, such as a meteorite impact or massive volcanic eruption. Others believe that it was a slow but irreversible deterioration of the terrestrial and marine environments that caused the devastation. Among such slowly-changing factors was a well-documented increase in greenhouse gases in the atmosphere and accompanying global warming.

This project will be the basis of an M.Sc. thesis at the University of Calgary. It will examine in detail the sedimentary succession recorded in three locations north of Greely Fiord, west of Tanquary Fiord and south of McKinley Bay, on NW Ellesmere Island. Two additional localities from eastern Axel Heiberg Island not far from Eureka will also be examined. Small fly camps will be set up at each locality. Air transportation is to be provided by PCSP. The student and his field assistant are yet to be named. They will be accompanied by their advisors, Dr. Benoit Beauchamp of the University of Calgary and Dr. Steve Grasby of the Geological Survey of Canada. The graduate student will measure five different sections at the five localities. He will record the thickness of individual beds, make observations about the rock composition, and collect rock samples for carbon and sulphur isotope analyses. In the lab, he will examine the collected samples under the microscope. Carbon and sulphur isotopes will be measured at the University of Calgary.

The data and the knowledge acquired through this study will be entirely available to Nunavut communities that wish to have access to it. The interpretations will be published in peer-reviewed journals.

Energy Potential of Eastern Sverdrup Basin

License Number: 0203009N-A

Principal Investigator: Beauchamp, Benoit

Affiliation: University of Calgary
Calgary, AB, Canada
bbeaucha@ucalgary.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: NW Ellesmere Island, SW
Ellesmere Island, NW Axel Heiberg
Island, Ellef Ringnes Island

SUMMARY

The Sverdrup Basin, which extends from Prince Patrick Island to Ellesmere Island, is one of Canada's most promising basins for future oil and gas exploration and development. To assist governments, industry, land claim organizations and the people in general understand what lies ahead, Natural Resource Canada has launched its GEM program (Geomapping for Energy and Minerals) to gather new geological data and information to improve our knowledge of the energy potential of a number of northern sedimentary basins, including the Sverdrup Basin.

This research effort will lead to socially and environmentally responsible development in support of the resource-based northern economy. This project is to be carried out through GEM funding. The project will address three issues of importance to understand the oil and gas potential of the Sverdrup Basin: 1. Organic-rich rocks. The focus of this project is to examine organic-rich outcrops on NW Ellesmere Island, SW Ellesmere Island and NW Axel Heiberg Island. 2. Paleo-seepages. This project will examine rocks associated with salt structures on Axel Heiberg and Ellef Ringnes islands to establish linkages between the source of leakages at depth and processes on the ancient basin floor. 3. Geology of Ellef Ringnes Island.

The last published map of Ellef Ringnes Island is more than 40 years old, and a new map is necessary to account for the many advances in geology of the past four decades. This project will examine the geology of the island in preparation for a larger mapping initiative.



Haughton-Mars Project: Northwest Passage Drive

License Number: 0503809N-A

Principal Investigator: Lee, Pascal

Affiliation: Mars Institute
Vancouver, BC, Canada
pascal.lee@marsinstitute.net

Number in Party: 5

Research Area: North Baffin, Kitikmeot

Fieldwork Locations: North Baffin, Kitikmeot

SUMMARY

The Haughton-Mars Project (HMP) is an international scientific research project on Devon Island, Nunavut, centered on advancing the exploration of the Moon and Mars through comparative studies between the Earth and these other planets, and by conducting simulations of their future exploration by robots and humans. The project was started in 1997 and continues every Summer with the support and participation of the Communities of Grise Fiord and Resolute Bay. Scientific findings from the project are openly released and are conducted for the benefit of all humankind.

This year, in order to deliver a new field research vehicle – the Moon-1 Humvee Rover - to the HMP Research Station on Devon Island, and in an effort to help understand better the pressing problem of Climate Change here on Earth, we propose to drive the entire length of the Northwest Passage, and measure the thickness of sea-ice using a Canadian-made electromagnetic sounding system. In addition, we propose to investigate snow and ice features presenting similarities with Mars and other planets, measure weak radiation from space, and learn lessons for operating future human rovers on the Moon and Mars.

We propose to drive our Moon-1 Rover from Kugluktuk to the HMP Research Station on Devon Island during a 2-3 week period between 1 April and 15 May 2009, with 1-day stops in Cambridge Bay, Gjoa Haven, and Resolute Bay. The Moon-1 Rover will be accompanied at all times by 2 snowmobiles serving as scouts. The field team will be international and will comprise a total of 5 people, with Dr Pascal Lee serving as Project Leader and Mr. Joe Amarualik of Resolute Bay as Lead Guide. Fuel, food, other supplies and services will be purchased in each of the communities visited.

Permafrost Monitoring - High Arctic Observatories

License Number: 0201809N-M

Principal Investigator: Smith, Sharon

Affiliation: Geological Survey of Canada
Ottawa, Ontario, Canada
sharon.smith@nrcan-rncan.gc.ca

Number in Party: 2

Research Area: North Baffin

Fieldwork Locations:

SUMMARY

The project consists of servicing an existing research site on Ellesmere Island where permafrost temperatures are being recorded. This observatory is one of the northernmost in the circumpolar arctic and the continued long-term operation makes an important contribution to monitoring and understanding, both nationally and internationally, the response of permafrost to climate change. Additional monitoring sites will be established near Eureka to improve understanding of the spatial variation in permafrost conditions. With authorization from the National Energy Board, the Geological Survey of Canada has maintained ground temperature observation equipment in the former hydrocarbon exploration well at Gemini since 1992. A 60 m temperature cable connected to a data logger is installed inside the wellhead. Data retrieval and equipment servicing was done in 1992 and 1994, 2000 and 2003. Funding acquired through the Canadian Government's International Polar Year (IPY) Program is being utilized to retrieve data and perform data logger maintenance in summer 2009. Up to 6 additional monitoring sites will be established at increasing distance (250 to 4000m) from the shoreline at Eureka (and possibly at Hot Weather Creek) to study the impact of nearshore air temperature inversions on permafrost conditions. The boreholes (10m depth) in which the temperature cables will be installed will be drilled with a small hand held drill.

No camps are associated with these activities and facilities at Eureka will be utilized. The research consists of visiting existing field instrumentation, collecting data and servicing/upgrading existing equipment. Establishment of new monitoring sites involves use of low impact equipment with no release of hazardous fluids. The structure left at new monitoring sites will be a plastic pipe about 1 m high which will house the cable and logger. Duration of stay at Gemini is estimated at a maximum of half a day and about 6 days will be required to install new monitoring sites in the vicinity of Eureka. Access to the sites will be through logistic support from the Polar Continental Shelf Project (helicopter and ATV) in late July.



High Arctic Ground Temperature Monitoring

License Number: 0202009N-M

Principal Investigator: Walker, Anne

Affiliation: Environment Canada CCRP
Downsview, ON, CA
anne.walker@ec.gc.ca

Number in Party: 3

Research Area: North Baffin

Fieldwork Locations: Hot Weather Creek

SUMMARY

For the past 20 years, the Climate Research Division (Climate Processes Section) of Environment Canada has maintained a number of automated climate/ permafrost stations at sites in northern Canada to support cold climate research activities within the Division. This has included the development and validation of climate models. Meteorological and ground temperature data sets collected at these sites have also been provided to Dr. Sharon Smith of the Geological Survey of Canada (Natural Resources Canada) to support the NRCan led permafrost monitoring network.

One of these sites is located at Hot Weather Creek, near Eureka, on Ellesmere Island. This Station has been in operation since approximately 1990. Maintenance of instruments and retrieval data sets from this site has been facilitated through collaboration with university researchers who carry out research activities in the Hot Weather Creek area. These researchers include, Dr. Greg Henry (UBC) and Dr. Antony Lewkowicz (U. of Ottawa).

Soot in Arctic Snow and its Influence on Surface Albedo

License Number: 0503609N-A

Principal Investigator: Grenfell, Thomas

Affiliation: Dept of Atmospheric Sciences,
MS 351640
University of Washington
Seattle, WA, USA
TCG@ATMOS.WASHINGTON.
EDU

Number in Party: 6

Research Area: Nunavut Wide

Fieldwork Locations: Nunavut Wide

SUMMARY

This year we plan to extend our survey to the Canadian Arctic Archipelago. We are leasing a Twin Otter aircraft from Kenn Borek Ltd. outfitted with retractable skis. We plan to fly from Inuvik to three Arctic communities, Cambridge Bay, Igloolik, and Resolute from 27 April through 13 May 2009. Each location will be a hub from which we will fly out in daily sorties. The plane will land at 3-4 remote locations to collect snow samples. The sorties provide us access to snow with background levels of LAC undisturbed by local sources. The hubs have been chosen to provide access to a wide area of the Canadian High Arctic. We do not need to visit and would plan to avoid sensitive or reserved areas.

Samples are collected from snow pits at several vertical levels using specially cleaned hand tools and containers, allowing us to document the seasonal deposition of LAC. A single sample consists of about 1 liter of snow and 5 to 6 samples are taken in each pit. Two to four snow pits would be dug at each landing site depending on the variety of surface types present. The samples are flown back to a hub where preliminary analysis is carried out. This allows us to check the quality of the observations and avoids having to transport large quantities of snow back to a central laboratory.



Canada's Three Oceans Project

License Number: 0203509N-M

Principal Investigator: Carmack, Eddy

Affiliation: Institute of Ocean Sciences
Sidney, BC, CA
Eddy.Carmack@dfo-mpo.gc.ca

Number in Party: 30

Research Area: Kitikmeot, North Baffin

Fieldwork Locations: Kitikmeot, North Baffin

SUMMARY

Canada's three oceans are connected by flows of water from the Pacific to the Arctic to the Atlantic. Changes in the Arctic Ocean are inextricably linked via these flows to changes in the adjacent oceans. The Canada's Three Oceans (C3O) project is focussed on ocean climate variability and its impact on Arctic and sub-Arctic marine ecosystems.

The Canadian Coast Guard annually sends science-capable icebreakers from East and West-coast ports on multitasked voyages that in combination encircle the country. These CCG patrols form the logistical backbone of C3O. C3O observations are of two types: long lines of opportunistic measurement linking Canada's ocean domains along the voyage tracks, and sites of year-round measurement from moorings at key sites. The C3O project is a Canadian contribution to the International Polar Year.

Objectives

The strategic objective of this IPY expedition is a demonstration of the scientific basis for long-term monitoring of the sub-Arctic and Arctic waters around Canada.

The specific objectives are:

- 1) To recover, service and re-deploy oceanographic moorings carrying instruments that measure ocean current, temperature and salinity, mammal vocalization and plankton.
- 2) To complete a long line of oceanographic stations in spring/summer, linking the Pacific Ocean to the Atlantic, through the Northwest Passage, measuring fundamental physical, chemical and biological variables at the surface and at depths to 1000 m.

Provenance of classic sediments in the Sverdrup Basin, Canadian Arctic Islands

License Number: 0203409N-M

Principal Investigator: Scott, Robert

Affiliation: CASP
Univ. Cambridge
Cambridge, , UK
robert.scott@casp.cam.ac.uk

Number in Party: 5

Research Area: North Baffin

Fieldwork Locations: Cornwallis Island, Ellesmere Island

SUMMARY

The CASP 2009/2011 field programme aims to study the geology of the Canadian Arctic Archipelago to build on existing published information, and CASP work in 2007 and 2008 (Axel Heiberg + Ellesmere Islands). The islands within Nunavut which we would like to visit (Cornwallis and Ellesmere islands) are located on around the edges of the Sverdrup Basin, where we can study the greatest range of sedimentary rocks. Given the unstable weather systems, uncertain ground conditions it is essential that our target areas remain flexible.

The principal aim of our research is to understand the types of mineral grains that are preserved in sandstone of different ages, from which we can establish where sand grains came from originally, and how they were transported to their site of deposition. Small rock samples will be collected from the surface. Observations, photographs, and measurements will be recorded from each rock units. No methods will be used in the field that will disturb the environment. No samples will be taken at any site of archaeological or biological sensitivity. Samples will be reduced to the desired size using a geological hammer and location data recorded using GPS receiver (Geographical Positioning System). The geographic position data and sample information will be stored in a GIS (Geographical Information System) database.



Arctic Ocean Climate Change Project

License Number: 0202509N-A

Principal Investigator: Hamilton, Jim

Affiliation: Ocean Science Division, DFO
Bedford Institute of Oceanography
Dartmouth, Nova Scotia, CA
HamiltonJ@mar.dfo-mpo.gc.ca

Number in Party: 6

Research Area: North Baffin

Fieldwork Locations: Eastern Barrow Strait, Lancaster Sound, Regent Inlet

SUMMARY

An oceanographic study in the eastern end of Barrow Strait has provided continuous measurements of water current, temperature and salinity from August 1998 to present, under successive NRI Research Licenses, the most recent being 0204508R-M. The objective of the work is to quantify and understand the variability of the heat and fresh water movement between the Arctic Ocean and the Northwest Atlantic to better understand global warming impacts. Measurements, combined with modeling studies, are being used to determine how the interactions between these oceans affect the local, regional and global climate systems.

The data collected also provide information for improving on the safety and efficiency of sea transportation and resources development in the high Arctic. In recent years, the program has expanded to include biological measurements (phytoplankton and zooplankton) to examine how changes in the physical environment may impact on the ecosystem. This physical and biological oceanographic monitoring program continues in 2009 to provide an extended continuous time series of data that can be examined for trends linked to climate change.

Astronomical Site Testing on Ellesmere Island

License Number: 0201509R-M

Principal Investigator: Steinbring, Eric

Affiliation: National Research Council
Herzberg Institute of Astrophysics
Victoria, BC, CA
eric.steinbring@nrc-cnrc.gc.ca

Number in Party: 4

Research Area: North Baffin

Fieldwork Locations: Ellesmere Island

SUMMARY

Astronomy requires clear, dry, cold skies. So, not surprisingly, telescopes have been built on some of the most remote mountains on Earth, to get above the clouds and away from the pollution of cities. It is thought that the best views of the cosmos may come from mountaintops in the Canadian high Arctic. Four in the Yelverton Bay area seem to be particularly good. Satellite images confirm this. But that needs to be verified by measurements from the mountain peaks themselves. We propose placing a small robotic weather station on three of these. The station also has a camera which would make pictures available on the internet via satellite. Everything is wind powered. Each station is about the size of a person, and in some sense is like an inukshuk. It acts as a path-finder, pointing to a good place to see the stars. To minimize environmental impact, we would place the stations by helicopter, setting up camp on the Bay for 10 days or less. We would fly in and out by Twin Otter: one scientist, one technician, and two students, one of whom would also be a local guide. Over the winter the students would use the pictures to decide if the skies are clear enough. If they are not, the stations would be removed, possibly as soon as next summer. If conditions are good we would hope to continue for at least another season, to see if it makes sense to place a telescope on one of the mountains. At the moment there are no plans for this. And any plan for a large research telescope would take many years to develop, allowing for ongoing consultation with local communities. But if realized, it could bring forefront technology to Nunavut, enhance educational opportunities, and provide construction activity, all within a project that wants to preserve the pristine and unique environment of the region.



Reconstructing climate and river fluctuations at Pelly Bay, Nunavut

License Number: 0402409R-M

Principal Investigator: Lamoureux, Scott

Affiliation: Department of Geography
Queens University
Kingston, ON, CA
scott.lamoureux@queensu.ca

Number in Party: 2

Research Area: Kitikmeot

Fieldwork Locations: Pelly Bay, Kugaaruk

SUMMARY

The goal of this project is to investigate past climate changes and river fluctuations using sediment cores collected from Pelly Bay and lakes in the Kugaaruk region. The amount and type of sediments that rivers deliver into bays and lakes depends on the local weather. Because of this the mud provides a record of the past climate. Observing the modern conditions will help to determine how weather controls which rivers are providing the mud, how much mud there is, where that mud goes in the bay, and when different types of mud are deposited. We hope to be able to evaluate both large (the Arrowsmith and Kellet Rivers) and small lakes to determine how they contribute to the sediment record and how they reflect changes in the climate.

Water quality and environmental change at Cape Herschel and Stygge Nunatak Pond, Ellesmere Island.

License Number: 0202909N-M

Principal Investigator: Smol, John

Affiliation: Dept. of Biology
Queens University
Kingston, ON, CA
smolj@queensu.ca

Number in Party: 7

Research Area: North Baffin

Fieldwork Locations: Resolute Bay

SUMMARY

Lakes and ponds are sensitive repositories of environmental information. We (J.P. Smol, and M.S.V. Douglas) have been monitoring 45 lakes and ponds at Cape Herschel, Ellesmere Island, approximately every 3 years since 1983. This area has become a critical reference site for limnological data. Although we normally only return every 3 years to Cape Herschel, in 2006 we recorded remarkable changes in the ponds. Several had dried up, which we believe is linked to climate warming. Therefore, we propose to return to Cape Herschel in 2009 and determine if the shallow ponds are still dry. If they are no longer dry, we plan on determining what changes have occurred in the ecology of these sites with the drying in 2006. We will also determine what changes are happening in the deeper ponds that are not dry, but have reduced water levels.

We will collect present-day water quality data (perhaps now in only the deeper sites if the shallow ones are dry again) and mud samples during approximately 10 days in July from lakes and ponds within walking distance of Cape Herschel. We will remove a small sample of water (~ 2 L) from each pond, as well as a small amount of mud (a few cm³) for analysis of indicators of environmental change. We do not sample or disturb any wildlife or fish.

Pending the availability of PCSP chartered helicopters and weather, we would also like to sample a few sites on nearby Pim Island, Bache Peninsula, Knud Peninsula, Alexandra Fiord and Stygge Nunatak region. This increases our range of sites in which to assess past environmental changes. In addition, while based at PCSP (Resolute), we sample about 10 ponds and lakes as part of our long-term water quality assessments. As we have done in the past, we will continue to communicate our results using published literature, which we distribute to the Arctic and local hamlet offices, as well as talks and seminars in the Arctic, as well as media interview on the radio and newspapers.



Meliadine West Gold Project

License Number: 0301309N-M
Principal Investigator: Young, Lasha
Affiliation: Golder Associates Ltd.
Edmonton, AB, CA
lasha_young@golder.com
Number in Party: 8
Research Area: Kivalliq
Fieldwork Locations: Rankin Inlet, Chesterfield Inlet

SUMMARY

All research activities will operate from the Comaplex Minerals West Gold Project exploration camp which has already been permitted for use. Please refer to Land Use Permit No.: N2007Q0040 for more detail.

The following is a summary of the baseline environmental studies that will be conducted in support of the Comaplex Minerals West Gold Project along the proposed all-weather road from Rankin Inlet to the Project site and within a 52 km radius of the Project site between May and December 2009. The project is located in the Kivalliq Region, and the nearest communities are Rankin Inlet (30 km) and Chesterfield Inlet (60 km).

All research will be carried out by experienced wildlife biologists, fisheries biologists, and water quality and hydrology specialists from Golder Associates with assistance from local community members, where possible. All field sites will be accessed from Meliadine West Camp by foot or by helicopter.

- Collect wildlife data and document wildlife habitat. The following wildlife studies will be conducted:
 - o aerial surveys for caribou (~ four per year);
 - o aerial survey for waterfowl;
 - o point counts for upland songbirds and rapid survey method for shorebird; and
 - o aerial surveys for raptors.
-

R

Aquatic field surveys will include detailed habitat mapping to describe and quantify fish habitat. Watercourse crossing studies to identify and verify potential Arctic grayling spawning sites.

- Water quality and sediment quality surveys in open water and under-ice conditions
- Collection hydroclimatic and hydrological parameters. The following hydrology studies will be conducted:
 - o snowcourse survey;
 - o collection of precipitation data using a rain gauge at the Meliadine West Camp; and
 - o water level and water discharge monitoring using continuous and discrete hydrology monitoring stations.

The information collected in 2009, as well as previous years, will support permitting requirements for the Project. The information will be communicated through summaries supplied as part of permitting requirements, in baseline reports and through presentation to communities and Nunavut organizations.



AREVA Kiggavik-Sissons Project Aquatic Baseline Program

License Number: 0301009R-M

Principal Investigator: Hamilton, David

Affiliation: Golder Associates Ltd.
Saskatoon, Saskatchewan, CA
dhamilton@golder.com

Number in Party: 9

Research Area: Kivalliq

Fieldwork Locations: Baker Lake

SUMMARY

AREVA Resources Canada Inc. (AREVA) proposes to construct and operate a uranium mine located in the Kivalliq region of Nunavut, southeast of the Thelon River. The Kiggavik-Sissons Project is at the surface exploration phase. The project is made of two large groups of mining leases and mineral claims subdivided into Kiggavik to the north and Sissons to the south. Field personnel will be transported to camp by helicopter. Lakes and streams will be accessed by boat and helicopter.

Quantifying Changes in Multi-year Floes Drifting through the Arctic

License Number: 02 044 09R-M

Principal Investigator: Johnston, Michelle

Affiliation: Canadian Hydraulics Centre
National Research Council
Ottawa, ON, Canada
michelle.johnston@nrc-cnrc.gc.ca

Number in Party: 4

Research Area: North Baffin

Fieldwork Locations: Nares Strait, Penny Strait

SUMMARY

The work will be conducted in Nares Strait (80°N) and Penny Strait (76°).

The objective the 2009 work is to (1) conduct detailed thickness measurements on up to 14 multiyear floes and (2) install a temperature chain and GPS system in two 10 m thick floes (Nares Strait) and one 25 m thick pressure ridge (Penny Strait). The temperature chains will extend through the full thickness of ice. They will be used to monitor temperature changes in the ice. GPS and temperature data will be downloaded remotely via satellite. This project promises to provide details about how quickly thick multi-year ice melts in summer and how much the floe recovers (new ice forms on the underside of the floe) during the winter.



Hydrocarbon Potential of Northern Melville Island

License Number: 0203909N-A

Principal Investigator: Dewing, Keith

Affiliation: Geological Survey of Canada
Calgary, ALTA, Canada
kdewing@nrcan.gc.ca

Number in Party: 6

Research Area: North Baffin

Fieldwork Locations: North Melville Island

SUMMARY

The purpose of this project is to update our understanding of the hydrocarbon potential of northern Melville Island and the adjacent offshore areas. Two scientists would like to start on northern Ellesmere Island, working from the Eureka Weather Station for 4 days to see how the salt looks where it is not folded. The work would then move to the Sabine Peninsula on Melville Island. One two-person group will examine the salt domes on Melville Island. The other 2-4 person group will visit and collect samples of the known natural oil seeps on Melville Island. The information collected will be used to help interpret seismic data that was collected in the 1970s and 1980s and characterize the oil that occurs on surface so it can be compared to oil from drill holes.

Development of a Research Project on the Permafrost Environmental System

License Number: 0204309N-A

Principal Investigator: Kyung Lee, Yoo

Affiliation: Korea Polar Institute
Incheon, , Korea
ykleee@kopri.re.kr

Number in Party: 2

Research Area: North Baffin

Fieldwork Locations: Resolute Bay

SUMMARY

Project is aimed to provide preliminary information for development of a biological research project on the permafrost environment system.



Provenance of Clastic Sediments in the Sverdrup Basin

License Number: 0203409R-M

Principal Investigator: Scott, Robert

Affiliation: CASP
Cambridge University
Cambridge, , UK
robert.scott@caspcam.ac.uk

Number in Party: 5

Research Area: North Baffin

Fieldwork Locations: Ellesmere Island

SUMMARY

The CASP 2009-2011 field programme aims to study the geology of the Canadian Arctic Archipelago to build on existing published information, and CASP work in 2007 & 2008

Climate Change Hazard Mapping in Nunavut Communities

License Number: 05 042 09N-M

Principal Investigator: Mate, David

Affiliation: Nunavut Climate Change Partnership
Memorial University & Université Laval
Quebec City, Quebec, Canada
dmate@nrcan.gc.ca

Number in Party: 18

Research Area: Nunavut

Fieldwork Locations: Various communities

SUMMARY

This work is part of the Nunavut Climate Change Partnership lead by the Government of Nunavut, Department of Environment. To conduct this work a collaborative team has been created that consists of CNGO, GN, NRCAN, Memorial University and Université Laval.

The purpose of this project is to evaluate existing and potential landscape hazards and the impacts climate change may have on infrastructure and resource development in communities across Nunavut. An intensive study will be conducted in Pangnirtung while reconnaissance studies will be conducted by this Project in several communities in 2009-10 (Arviat, Whale Cove, Cambridge Bay, Kugluktuk and Iqaluit).

Fieldwork in support of this research includes community-scale surficial geology mapping, natural hazard assessment, and permafrost characterization in order to identify infrastructure at risk and landscape constraints on future development. Datasets that will be produced include surface sediment characteristics, permafrost and ground-ice content, geotechnical properties, thermal condition of the ground, hydrology and surface processes.

The goal is to integrate the above datasets to create a landscape hazard map for communities. This map will be a useful tool for planners and engineers in Nunavut.



Sea Level Rise and Coastal Hazards in Arctic Canada

License Number: 05 043 09R-M

Principal Investigator: Mate, David

Affiliation: Nunavut Climate Change Partnership
Memorial University & University Laval
Quebec City, PQ, CA
dmate@nrca.gc.ca

Number in Party: 7

Research Area: Nunavut Wide

Fieldwork Locations: All communities

SUMMARY

The purpose of this project is to develop information on sea-level changes and coastal hazards to be expected with changing climate over the coming 50-100 years as a basis for adaptation planning in communities across the Canadian Arctic

Paleoclimates of the Foxe Basin and Surrounding Regions

License Number: 01 035 09R-M

Principal Investigator: Pienitz, Reinhard

Affiliation: Centre d'études nordiques
University Laval
Quebec, Quebec, CA
reinhard.pienitz@cen.ulaval.ca

Number in Party: 3

Research Area: South Baffin

Fieldwork Locations: Cape Dorset

SUMMARY

The purpose of our research is to collect information on past climates from a series of lakes in the Foxe Basin region. Using biological and physical data extracted from lake sediment records, we will explore the potential responses of northern lakes and their watersheds to past climate changes, in order to predict future impacts of climate change on these freshwater ecosystems.

Our research team will be transported to and from Cape Dorset by regular flights from Iqaluit. A helicopter will be chartered to explore the study area and to reach the appropriate study sites. For on-the-ground exploration of potential study sites in the immediate vicinity of Cape Dorset, transportation will be provided by ATVs, hired from the community.

No structure will be erected, and the impacts of our lake sediment sampling on the environment will be minimal. The sediment and water samples represent a very small amount of material relative to the entire lake ecosystem. The echosounder used has no harmful effects on aquatic organisms. All our equipments are made of resistant and inert materials that neither decompose in water nor pollute the water.

No fuels nor any hazardous materials will be used in the field. Our logistic bases will be within local communities, so that we do not have to camp in the field. Activities in the field will be conducted so as to minimize any disturbance of the environment. Any wastes (plastic bags, papers) will be collected and transported to appropriate places designated for the disposal of wastes.



ArcticNet 2009 Expedition: Integrated Regional Impact Study of the Canadian High Arctic

License Number: 05 046 09R-M

Principal Investigator: Levesque, Keith

Affiliation: ArcticNet
Universite Laval
Quebec City, Quebec, Canada
keith.levesque@arcticnet.ulaval.ca

Number in Party: 43

Research Area: Nunavut Wide

Fieldwork Locations: North & South Baffin , Kivalliq and Kitikmeot

SUMMARY

The main objective of the proposed research project is to assess the changes occurring in the Eastern Canadian Arctic coastal marine ecosystem in response to climate warming. Using the Canadian research icebreaker CCGS Amundsen to access the vast expanses of the coastal Canadian Arctic, sampling operations in Nunavut waters are planned to take place from 15 October to 10 November. Shipboard sampling will be carried out along the ship track and at designated sampling stations in the Northwest Passage, Lancaster Sound, northern Baffin Bay and Hudson Strait.

Shipboard operations will include mapping the ocean floor with sounding technologies, meteorological measurements and the sampling of seawater, sediment, sea ice, plankton and juvenile fish. The quantity of organisms sampled will be ecologically insignificant and will have no impact on the resource. A small launch vessel (< 10 m) will also be used to measure the physical characteristics of the water column such as mixing occurring in the surface layer. The vessel will conduct short term day-time (under 4 hours) sampling operations and return to the Amundsen daily. Samples taken during the 2009 expedition will cover almost all natural science fields, including geology, chemistry (e.g., contaminants), biology, oceanography and meteorology.

Axel Heiberg Island Project

License Number: 02 047 10R-M

Principal Investigator: Smyth, Helen

Affiliation: CASP
University of Cambridge
Cambridge, , UK
robert.scott@casp.com.ac.uk

Number in Party: 5

Research Area: North Baffin

Fieldwork Locations: Ellesmere & Cornwallis Island

SUMMARY

The main aim of the research project is to characterise the nature and provenance of northerly-derived Late Palaeozoic and Mesozoic clastic strata along the northern margin of the Sverdrup Basin, and to use the information to constrain Arctic Ocean plate reconstructions. The proposed fieldwork forms an integral part of the PhD research project of Jenny Omma, a second year PhD student based at CASP, Department of Earth Sciences, University of Cambridge, United Kingdom. The work also forms part of a larger CASP circum-Arctic project and builds on sixty years of CASP fieldwork in the Arctic. It should also be mentioned that an attempt to undertake CASP fieldwork in June-July 2006 on northern Axel Heiberg Island was thwarted by unusually persistent bad weather. There was no PCSP funding connected to this work.





Houghton-Mars Project: Mars Analog Studies at the Houghton Impact Crater, Devon Island, Nunavut

License Number: 0203209R-M

Principal Investigator: Lee, Pascal

Affiliation: Ames Research Center
NASA
Moffet Field, California, U.S.A.
pcee@mail.arc.nasa.gov

Number in Party: 20

Research Area: North Baffin

Fieldwork Locations: Devon Island

SUMMARY

An international field research project centered on the scientific study of the Houghton meteorite crater & terrain on Devon Island, viewed as a site similar to the moon and Mars.

R







Researcher Index

Abbi, Nita	17	Kennedy, Sheena	20	Walker, Anne	77
Akulukjuk, Leesie	44	Kornelson, Jude	13	Weber, Barret	23
Alsop, Jennifer	35	Kyung Lee, Yoo	83	Whyte, Lyle	61
Ames, Harry	12	Lafleur, Peter	73	Willet, Dr. Timothy	18
Arbour, Laura	14	Lamoureux, Scott	74, 80	Williamson, Karla Jessen	37
Argetsinger, Timothy H.	26	Landry, Francois	52	Wong, Pamela	45
Beauchamp, Benoit	75	Lee, Pascal	76, 87	Wootten, Brent	62
Bédard, Jean H.	67	Levesque, Keith	86	Young, Lasha	81
Berger, Paul	45	Lyall, Jessie	37	Zhang, Shunxin	60
Briner, Jason	70	MacDougall, J. Richard	68	Zubrin, Robert	59
Brunelle, Natacha	27	Maire, Aurélie	31		
Burgess, David	71	Makowsky, Mark J.	12		
Carmack, Eddy	78	Manik, Doreen	38		
Chakungal, Joyia	71	Mate, David	84, 85		
Childs, Elizabeth	39	Mauro, Ian J	32		
Connell, Larry	43	McCoy, Nelson	65		
Cunliffe, Chip	72	McGrath, Janet	23		
Dewing, Keith	83	Mike, Shuvinai	35		
Diem, Elizabeth	15	Miles, Warner	58, 60		
Dodsworth, Sharina	20	Moeller, Helle	22		
Doubleday, Nancy	21	Moore, Steve	53		
Duchemin-Pelletier, Florence	50	Muir, Derek	58		
Dupre, Florence	48	Neigo, Margaret	22		
Edinger, Evan	56	Pienitz, Reinhard	85		
Egeland, Grace	15	Pitsiulak, Saa	25		
Egeni, Camilius	44	Pollard, Wayne	73		
Ensign, Scott C.	30	Prowse, Terry	72		
Evyagotailak, Susie	41	Quinby, Peter	74		
Flaherty, Elisapee	26	Quinlan, Dr. Roberto	53		
Folliott, Jadah	47	Reid, Robert	13		
Ford, James	33, 34	Rodon, Thierry	42		
Gadoua, Marie-Pierre	49	Ross, Susan	28		
Gearheard, Sharina	33	Routledge, Karen	49		
Gibbons, Darlene	36	Rumbolt, Mina	41		
Goldfarb, David	18	Rutter, Allison	63		
Grant, Jon	57	Sanborn-Barrie, Mary	70		
Grenfell, Thomas	77	Schuit, Joke M.	25		
Griebel, Brendan	32	Scott, Robert	63, 78, 84		
Haas, Christian	56	Sharma, Sangita	16		
Haider, Dr. Wolfgang	29	Sharp, Martin	66, 67		
Hamilton, Jim	79	Siciliano, Steven	55		
Hamilton, David	82	Sisco, Ashley	29		
Harder, Miriam	47	Smith, Sharon	66, 76		
Henri, Dominique	24	Smol, John	80		
Henton, Joseph	57	Smyth, Helen	86		
Hicks, Jack	17	Snyder, David	64		
Higgins, Marc	21	Sofko, George	54		
Jefferson, Charles	61	Southcott, Chris	24		
Johnson, Noorjehan	46	Spinney, Jennifer	43		
Johnston, Michelle	82	Steinbring, Eric	64, 79		
Kakudluk, Meeka	36	Strapp, Walter	69		
Karetak, Elisapee	46	Strutynski, John	50		
Kavik, Mary	38	Topp, Brent	55		
Kavik, Lisi	39	Tremblay, Bruno	53		
Kavik, Dinah	40	Uluadluck, Nancy	40		
Kelly, Mary	62	van den Scott, Lisa-Jo	28		
Kelly, John	65	Visintin, Massimiliano	31		



P.O. Box 1720
Iqaluit, NU X0A 0H0
Tel: (867) 979-7298 Fax: (867) 979-7109