NUNAVUT
RESEARCH INSTITUTE

2012 COMPENDIUM OF RESEARCH

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A Message from the Senior Science Officer

As the Institute wraps of another year of activity, we can see a slight increase in social science and health related research in Nunavut.

Many new projects are being initiated by Nunavummiut with a desire to generate more data relevant to peoples lives. 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 new opportunities for research in Nunavut since the new lab in Iqaluit has gained certification. 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 and technology.

Mary Ellen Thomas
Senior Science Officer
Nunavut Research Institute

Celebrating 25 Years of Environmental Technology Training in Nunavut

Alumni gathered for the 25th Anniversary of the Environmental Technology Program in iqaluit.

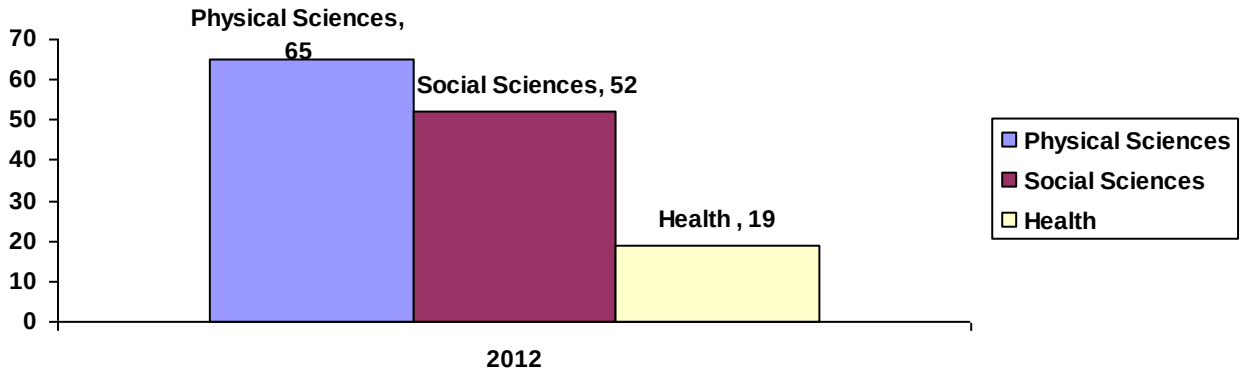
Welcome to the Nunavut Research Institute

The Nunavut Research Institute is a gateway to the many exciting research and technology development initiatives underway in the territory.

A part of Nunavut Arctic College, it is a leader in developing and promoting traditional knowledge, science and technology as key local resources. As the central body mandated to license research, it serves as a touchstone for broad-scale scientific activity in the territory.

NRI also acts on behalf of Nunavut residents, sharing information on research projects, providing advice on research funding programs and assisting in the development of proposals to research funding agencies.

2012 Research Projects in Nunavut



The Nunavut Research Institute's headquarters and science campus in Iqaluit features modern infrastructure supporting environmental education, research and technology.

Mandate and Objectives

The Nunavut Research Institute's mandate is to develop, facilitate, and promote scientific research as a resource for the well being of people in Nunavut. The core objectives of the Institute are to:

- Coordinate the research licensing process under the Nunavut Scientists Act
- Support the meaningful involvement of Nunavut residents in scientific research, including advancing the incorporation of Inuit Qaujimanituqangit in research design
- Promote the development and application of new technology to improve the quality of life of Nunavummiut
- Help broker research projects and partnerships that meet the needs of Nunavut residents
- Provide a clearing house of information on scientific research conducted in Nunavut
- Organize, facilitate, and promote research training and outreach programs designed to enhance awareness and build local research capacity in Nunavut

Services and Support for Licensed Scientific Research

The Nunavut Research Institute provides a range of research and advisory services supporting research across the territory. Support services include:

- Research regulatory advice (e.g. identification of permit requirements for field projects);
- Identification of research field support services (referrals for interpreters, field assistants, accommodation, etc);
- Organization of research presentations and outreach activities in Iqaluit;
- Advice on communication, training, and community engagement initiatives;
- Support for research development, including proposal review, brokering partnerships, and identification of project funding sources

NUNAVUT RESEARCH INSTITUTE FACILITIES

Nunavut Research Institute and Iqaluit Science Campus

The Nunavut Research Institute provides logistical support services and resources to licensed researchers at their headquarters and Science Campus facilities in Iqaluit:

NRI also maintains a supply of field gear and safety equipment (ice augers, -40C rated sleeping bags, winter boots and coats, tent, camp stoves, immersion suits, SPOT personal locator devices, GPS devices, satellite phones, etc.)

Services and Equipment include:

- Physical, Social Sciences and Health Research
- Wet laboratory with chemical fume hoods*
- Accommodation and meals at Nunatta residence*
- Shower and laundry facilities
- Telephone, fax, printing, copying*
- Wireless internet access and research work stations
- Meeting rooms with presentation screens
- Whisper interpretation kits
- NRI Circumpolar Research library
- Warehouse storage (unheated) - short and long term*
- ATV and snowmobile rentals

Rankin Inlet Research Laboratory

The Rankin Inlet Research Laboratory is customized to support physical sciences and health research through the provision of clinical and laboratory facilities.

Cambridge Bay Research Laboratory

The Cambridge Bay Research Laboratory is customized to support physical sciences and health research through the provision of clinical and laboratory facilities.

Arviat Traditional Knowledge Research Centre

The Arviat Research Support Centre provides support for social sciences and traditional knowledge research with an emphasis on new media production and publishing.

- Social Sciences and Traditional Knowledge Research
- New media video production and editing suites
- Accommodation for up to six residents *
- Shower and laundry facilities
- Telephone, fax, printing, copying *
- Wireless internet access and research workstations
- Meeting rooms with presentation screens
- Whisper interpretation kits
- Translation and Interpretation services *
- Teleconferencing/video conferencing services *
- Warehouse storage - short and long term *

Igloolik Research Residence

The Igloolik Research residence is designed to support up to six visiting researchers. On-site kitchen, shower, laundry and storage facilities.

Nunavut Arctic College Community Learning Centres

Nunavut Research Institute facilities and services are compimented through the support of Nunavut Arctic College's network of Community Learning Centres and regional Campuses in Iqaluit, Rankin Inlet, Arviat and Cambridge Bay.

For more information …

For more information on research support services, facility bookings and fees contact:

Manager, Scientific Support Services
Nunavut Research Institute
Box 1720 Iqaluit, NU XOA OHO
Phone: 867-979-7280 Fax: 867-979-7109
Rick.armstrong@arcticcollege.ca

** denotes services that may be subject to user fees. Please consult the user fee table below for our current rates*

2012 NUNAVUT RESEARCH HIGHLIGHTS

Pond Inlet Students Celebrate Graduation
Second-year Environmental Technology students in Pond Inlet receive their diplomas at graduation.

Dalhousie University and Nunavut Research Institute Recognized for Wastewater Research and Capacity Building

The Hon. Lorne Kusugak, Minister of Community and Government Services for the Government of Nunavut recognized Dalhousie University and the Nunavut Research Institute for their initiative to provide equipment and training for in-territory analyses of wastewater samples.

Nunavut congratulates the first Arctic Inspiration Prize recipients

Three Nunavut-based projects were named as the first recipients of the Arctic Inspiration Prize. The Arctic Food Network, the Nunavut Literacy Council and a group of elders writing a book on Inuit Qaujimajatuqangit were awarded the honour at the 8th ArcticNet Annual Scientific Meeting last night in Vancouver, B.C.

Arctic College Environmental Technology Program celebrates 25 years of success

In the Legislative Assembly of Nunavut on October 25, 2012, the Hon. Daniel Shewchuk, Minister responsible for Nunavut Arctic College congratulated the Environmental Technology Program on 25 years of success.

ETP Alumni from 1987-1990 at the reunion.

Nanisiniq Arviat History Project profiled in 2011-2012 SSHRC Annual Report

Seen here while presenting at the 18th Inuit Studies Conference in Washington, D.C., the Nanisiniq Arviat History Project helped bridge the gap between Inuit Elders and youth through digital skills development and traditional knowledge research. The community-based initiative with the School of Social Work, University of British Columbia, was profiled in the Social Sciences and Humanities Research Council of Canada's 2011-2012 Annual Report.

Environmental Technology Program students attended and presented at the International Polar Year: From Knowledge to Action conference in Montreal. More than 3,000 scientists and researchers were in attendance for the highly-successful conference.

ETP graduate Tom Wilkinson presents at the IPY From Knowledge to Action conference held in Montreal.

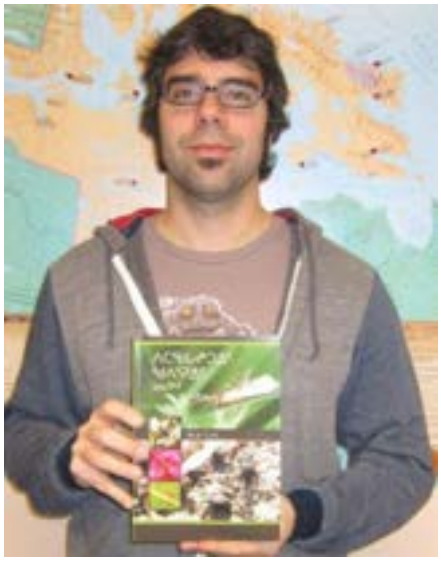
For more Nunavut Research news, visit www.arcticcollege.ca

Environmental Technology Students take to the seas with Worldwide Quest Arctic Expedition

Environmental Technology Program students and staff participated in an expedition cruise from St. John's to Iqaluit with Worldwide Quest Expeditions. During the excursion, students and staff delivered marine biology training and sessions on Inuit language and culture to passengers.

Environmental Tech students combine science and studies with annual Winter Field Camp

Participants with this year's Environmental Technology Program (ETP) Winter Field Camp included 24 students, 4 instructors, 17 snowmobiles, and 12 qammotiqs. The annual expedition to Crazy Lake is a key component of the highly-successful program and a rite of passage for the program's students. The group left on March 28, 2012 and returned on April 4.



New science textbook introduces students to the common insects of Nunavut

After three years of work, Nunavut Teacher Education Program faculty member Neil Christopher has published *Common Insects of Nunavut*.

This Inuktitut and English publication brings together science knowledge and Inuit traditional knowledge on many of the insects that can be found in Nunavut. he book is currently being distributed across Nunavut by the Department of Education.

STAY CONNECTED!

For more of the latest science and research news from the Nunavut Research Institute visit our web site at: http://www.arcticcollege.ca

2012 HEALTH RESEARCH IN NUNAVUT

A Review of Nunavut Oncology Patients Treated at the OttawaHospital Cancer Centre

License Number: 01 095 11Registry
Principal Investigator

Asmis, Timothy
Affiliation:
Ottawa Hospital Cancer Centre
Ottawa, Ontario K1H 8L6
Canada
tasmis@ottawahospital.on.ca

Number in Party: 2
Research Area: South Baffin
Communities: Iqaluit

Summary:
The Ottawa Hospital Cancer Centre serves as the referral center for the eastern region of Canada's territory, Nunavut. The treatment of malignancy is usually not performed in the territory, rather patients travel great distances to Cancer Centers in Ottawa, Winnipeg or Edmonton.

A review of all patients referred to the Ottawa Hospital Cancer Center between January 2002 and December 2010 was completed in April 2011.

Through the collection of information regarding demographics, disease site, stage, treatment, barriers to treatment, distance from home, and use of translation services we were able to describe the unique challenges of the residents of Nunavut in dealing with cancer in order to improve their access to quality care.

However, incomplete data within our system has prevented us from fully understanding the data collected.

An evaluation of the potential effectiveness of tobacco-related health messages among Inuit in Nunavut, Canada

License Number: 01 019 12Registry
Principal Investigator

Costello, Mary Jean
Affiliation:
University of Waterloo
School of Public Health & Health Systems
Waterloo, Ontario N2L 3G1
Canada
mjecoste@uwaterloo.ca

Number in Party: 4
Research Area: South Baffin & Kivalliq
Communities: Iqaluit, Rankin Inlet

Summary:
The main purpose of this research project is to examine how Inuit respond to tobacco-related health messages and examine the types of message characteristics that might work best.

About 150 participants will take part in a face to face interview where they will be asked questions about their tobacco use.

They will then be shown a series of tobacco-related health messages and asked to rate how they make them feel.

An experimental design will be used to test four message characteristics.

Arviat Healthy Homes and Public Health Youth and Elders Community Survey

License Number: 03 061 11N-A REGISTRY
Principal Investigator
Healey, Gwen
Affiliation:
Qaujigiartiit Health Research Network
Iqaluit, Nunavut X0A 0H0
Canada
gwen.healey@qhrc.ca

Number in Party: 4
Research Area: Kivalliq
Communities: Arviat

Summary:
Arviat has long been a community proactively working for improvements and increased owner-ship in programs which impact their lives. Since the creation of Nunavut, the Arviat Health Committee has had a community wellness plan that targets specific community-identified health issues and is based on community-initiated research findings and locally developed programs.

The community Health Committee works closely with the Arviat Hamlet Council and other community agencies to ensure that efforts to address health and wellness issues are collabora-tive and well supported across the community. In September 2008, during the Arviat Health Summit, the idea for the Healthy Homes initiative was developed in response to the devastating outbreak of CA-MRSA.

During the summit discussions, the message was adopted that it is up to each family to ensure its own health, to provide a healthy home for children and to be aware of how to prevent illness.

With no formal access to public health education in the community, the decision was made to launch a program directed at examining the existing conditions which lead to high rates of communicable disease in the community and at providing information that will promote prevention and changes in personal health habits.

Atii! Let's Do it! A comprehensive Healthy Living intervention for children, youth and families in Nunavut.

License Number: 01 025 12Registry
Principal Investigator
Healey, Gwen
Affiliation:
Qaujigiartiit Health Research Centre
Iqaluit, Nunavut X0A 1H0
Canada
gwen.healey@qhrc.ca

Number in Party: 4
Research Area: Qikitqni & Kivalliq
Communities: Arviat, Iqaluit

Summary:
Data from the 2007-2008 Nunavut Child Health Survey suggest the overall prevalence of overweight is 50.8%.

However, an examination of biological, socio-economic and dietary factors, including birth weight, breastfeeding, day care attendance, traditional and market food consumption and sweetened beverage consumption revealed no significant associations that could explain the development of obesity risk in this population.

For this project, we will focus on the implementation and evaluation of interventions designed by and for Inuit in Nunavut. Our project will focus on exploring the social and cultural aspects of the interventions, as well as health determinants for the target populations for the interventions.

Burden of Self-reported Acute Gastrointestinal Illness in Iqaluit

License Number: 01 098 11N-M
Principal Investigator
Harper, Sherilee
Affiliation:
University of Guelph
Department of Population Medicine, Ontario Veterinary College
Guelph, Ontario N1G 2W1
Canada
harpers@uoguelph.ca

Number in Party: 5
Research Area: South Baffin
Communities: Iqaluit

Summary:
We are conducting a survey to estimate the prevalence of acute gastrointestinal illness (e.g. diarrhoea and vomiting) in your community. In this study, community members will be asked a number of questions, including questions about health information, food and water consumption habits, animal ownership, leisure activities, and demographic information.

We would like to investigate what might cause gastrointestinal illnesses in your community in order to reduce this illness in your community.

CanMEDS Portfolio Project

License Number: 01 012 13Registry-Amended
Principal Investigator
Cooke, Robert
Affiliation:
Centre for Addiction & Mental Health
Ontario Psychiatric Outreach Program
Toronto, Ontario M5T 1R8
Canada
robert_cooke@camh.net

Number in Party: 4
Research Area: Baffin Island
Communities: Arctic Bay, Cape Dorset, Clyde River, Hall Beach, Iqaluit, Kimmirut, Nanisivik, Pangnirtung, Qikiqtarjuaq, Resolute Bay, Grise Fiord

Summary:
The Projects ultimate goal is to ensure that residents derive maximum benefit from unique educational opportunities in the northern setting of Baffin Island using the CanMEDSA roles, and through that means, to improve the quality of care offered to the residents of Baffin Island.

Climate change, key traditional food species and community health in Nunavut

License Number: 0401205N-M
Principal Investigator
Chan, Laurie
Affiliation:
McGill University
MacDonald Campus
Ste. Anne de Bellevue, Quebec H9X 3V9
Canada
laurie.chan@mcgill.ca

Number in Party: 4
Research Area: Kitikmeot, Kivalliq
Communities: Kugaaruk, Repulse Bay

Summary:
The proposed research is to identify changes in availability and access of key food species in two Nunavut communitities, Kugaaruk, and Naujaat and to project nutrient intake and health impacts. We will also help the communities to create an adaptation plan.

Our study aims to understand how changes in key species abundance and access, is related to health (focused on nutrient intake, but also concerning social, mental, spiritual, and aspects of health). Are the hunting seasons longer of shorter? How does this change the number of animals harvested in each community? How does this affect community distribution of food and thus nutrient intake and overall health? These are some of the key questions guiding our study.

The study will involve several days of interviews, use of maps, and focus groups with informed individuals from the communities in the spring of 2005. This project will be carried out in collaboration with the communities at all stages of the project to ensure correct representation and appropriateness of knowledge shared. A preliminary workshop to be organized by the Inuit Tapiriit Kanatami in winter of 2005 will be the basis for what environmental change is currently affecting the community.

This preliminary visit will allow us to identify community concerns and focus our hypotheses and our research tools in this direction. The results of our study will be vital in developing an adaptation plan to achieve required nutrient levels that promote optimum health in the face of climate change.

Furthermore, it will bring to light the link between overall health and traditional key food species in each community.

Follow-up of Universal Vaccination Against Hepatitis B Virus in the Canadian North

License Number: 01 034 12Registry
Principal Investigator
Uhanova, Julia
Affiliation:
University of Manitoba
Department of Internal Medicine
Winnipeg, Manitoba R3E 3P5
Canada
julia.uhanova@med.umanitoba.ca

Number in Party: 3
Research Area: Kivalliq, South Baffin
Communities: Rankin Inlet, Iqaluit

Summary:
This study will document and/or provide estimates of:

1. the coverage of residents of Nunavut who were candidates for universal HBV vaccination programs since they were instituted in 1992,
2. the percent of the population who did not acquire protection against HBV (either as a result of not participating or inadequate response to the vaccine) and funding permitting, more current estimates of:
3. the prevalence of HBV and
4. HCV infection in Nunavut.

Gathering Community Perspectives on Infant Sleeping Practices in Nunavut

License Number: 05 003 12R-M
Principal Investigator
Arbour, Laura
Affiliation:
University of Victoria
UBC Dept. of Medical Genetics
Victoria, BC V8W 2Y2
Canada
larbour@uvic.ca

Number in Party: 5
Research Area: South Baffin, Kivalliq, Kitikmeot
Communities: Arviat, Cambridge Bay, Iqaluit

Summary:
Nunavut has the highest rate of infant deaths (deaths until 1 year of age) in Canada. One important cause of infant death in Nunavut is sudden infant death syndrome (SIDS), where an infant dies during sleep without an obvious cause. When this occurs, it is devastating for families. Safe sleeping practices with a newborn infant are very important and may reduce the chance of SIDS.

Sleeping practices that can make a difference include the position the baby is put to sleep in and other aspects such as sleep surfaces, other people in the same bed as the baby, etc.

In partnership with Nunavut Tunngavik Inc (NTI) and the Arctic Health Research Network (AHRN), this project will hold multigenerational focus groups to explore traditional and current sleep practices (positioning, co-sleeping etc).

Information from the focus groups and knowledge of Inuit cultural practices will help in development of a health promotion strategy encouraging safe sleep practices and culturally relevant Maternal Child Health practices.

Healing the social body: A community-based approach to mental health policy.

License Number: 0400106R-M
Principal Investigator
Donaldson, Shawn
Affiliation:
Carleton University
Department of Geography and Environmental Studies
Ottawa, ON K1S 5B6
Canada
sdonald2@connect.carleton.ca

Number in Party: 1
Research Area: South Baffin
Communities: Cape Dorset

Summary:
I would like to gain a better understanding of community perspectives on how to understand and promote mental health and prevent mental illness.

Particularily, I would like to better understand the role that cultural concepts of mental health, connections to nature, identity and traditional values play in mental health and the prevention of mental illness.

This can be used to examine the governments approach to address mental health issues to see if it reflects Inuit views and knowledge.

This research will use qualitative methodology in conjunction with official statistical data. I hope to do interviews with community members, public health officials, nurses, doctors, psychologists and psychiatrists.

Improving tuberculosis diagnosis in vulnerable populations:impact and cost-effectiveness of a novel, rapid molecular assay

License Number: 01 017 12Registry
Principal Investigator
Alvarez, Gonzalo
Affiliation:
Ottawa Hospital Research Institute
Ottawa, Ontario K1Y 4E9
Canada
galvarez@ohri.ca

Number in Party: 3
Research Area: South Baffin
Communities: Iqaluit

Summary:
Tuberculosis is an important public health problem in Canada among immigrants and Aboriginal populations. Currently, Nunavut is facing the largest TB outbreak in the territory's 10 year history. One of the biggest challenges for TB control is early diagnosis.

Many TB cases are detected late and this results in the spread of the infection in the community. Currently used TB tests are either inaccurate or not rapid enough. Better diagnostic options are urgently required, so that the spread of TB can be contained.

Recently, the World Health Organization announced its endorsement of a novel molecular test for TB - the Xpert MTB/RIF test, a cartridge -based, completely automated test, which can accurately detect TB and drug resistance in less than 2 hours, and can be performed without laboratory expertise.

Improving tuberculosis diagnosis in vulnerable populations:impact and cost-effectiveness of a novel, rapid molecular assay

License Number: 01 100 11N-Mregistry
Principal Investigator
Alvarez, Gonzalo
Affiliation:
Ottawa Hospital Research Institute
Ottawa, Ontario K1Y 4E9
Canada
galvarez@ohri.ca

Number in Party: 3
Research Area: South Baffin
Communities: Iqaluit

Summary:
Tuberculosis is an important public health problem in Canada among immigrants and Aboriginal populations.

Currently, Nunavut is facing the largest TB outbreak in the territory's 10 year history. One of the biggest challenges for TB control is early diagnosis.

Many TB cases are detected late and this results in the spread of the infection in the community. Currently used TB tests are either inaccurate or not rapid enough.

Better diagnostic options are urgently required, so that the spread of TB can be contained.

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Negotiating Pathways to Adulthood: Social Change and Indigenous Culture in Four Circumpolar Communities

License Number: 02 042 12R-M
Principal Investigator
Kral, Michael
Affiliation:
University of Illinois
Psychology
Champaign, Illinois 61820
USA
mkral@uiuc.edu

Number in Party: 1
Research Area: North Baffin
Communities: Igloolik

Summary:
Contemporary aspects of rapid social change have dramatically affected the political, cultural, and economic systems of circumpolar Indigenous peoples.

The study will explore community responses to the social transition through the experiences of Inuit youth who are genealogically linked across the North and share a common language group.

Youth in the circumpolar North are experiencing a very high suicide rate, reflecting some of the very negative effects of this change. Rather than learning more about problems, this study will focus on strengths among youth, what is called resilience, as they navigate their way toward adulthood.

We need to learn more about how youth and their families are coping positively, so that this information can be shared across Northern communities to help with suicide prevention and youth wellness

Palliative Care and the Kivalliq Region of Nunavut: Determinants of Programme Development and Implementation

License Number: 0301003N-A
Principal Investigator
Martin, Bruce
Affiliation:
University of Manitoba
Faculty of Medicine
Winnipeg, Manitoba R3E 0W3
Canada
bmartin@cc.umanitoba.ca

Number in Party: 0
Research Area: North Baffin

Summary:
The ultimate objective of this study is to identify the broad determinants of palliative care programme development and implementation in the Kivalliq Region of Nunavu. This objective will be achieved in the following dimentsions:

1. Conducta survey of the literature regarding specific emphasis on cross-cultural and remote settings;
2. Identify the broad determinants for current and sustained palliative care programming;
3. Identify the requisite supports for palliative care by conducting an environmental scan of the current health and social services system with a Nunavut-specific focus;
4. Identify Canadaian Inuit beleifs on death and dying by reviewing existing literature, and aupplementing this with information from key informants;
5. Conduct focused interviews of patients and family "units of care" regarding end of life care from both a cultural and needs-based perspective; and
6. Conduct surveys and interviews of health and social service providers to gain their perspective on palliative care programme development and implementation.

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

License Number: 05 009 12R-M
Principal Investigator
Arbour, Laura
Affiliation:
Victoria General Hospital
Department of Medical Genetics
Victoria, BC V8Z 6R5
CA
laura.arbour@viha.ca

Number in Party: 4
Research Area: 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.

Taima TB

License Number: 01 018 12Registry
Principal Investigator
Alvarez, Gonzalo
Affiliation:
Ottawa Hospital Research Institute
Ottawa, Ontario K1Y 4E9
Canada
galvarez@ottawahospital.on.ca

Number in Party: 2
Research Area: South Baffin
Communities: Iqaluit

Summary:
The TAIMA TB project was developed to expand and increase awareness of TB in Iqaluit. It also set out to test a novel approach to latent TB infection screening and treatment through a door-to-door education, screening and treatment campaign in residential areas at high risk for TB. Latent TB infection can develop into active TB disease. Treatment of latent TB infection can significantly diminish the number of people who go on to have active TB disease. TAIMA TB implemented and evaluated this project in Iqaluit with a view to enhance the existing preventative efforts in the fight against tuberculosis (TB) in Nunavut. TAIMA TB is the translation of Stop TB in the local dialect of Inuktitut.

The Viral Hepatitis Northern Network: A Platform for Adressing Viral Hepatitis in the Canadian North

License Number: 01 007 12R-M
Principal Investigator
Minuk, Gerald Y.
Affiliation:
University of Manitoba
Medecine/Pharmacology
Winnipeg, MB R3E 3P4
Canada
gminuk@cc.umanitoba.ca

Number in Party: 7
Research Area: South Baffin, North Baffin
Communities: Cape Dorset, Pangnirtung, Qikiqtarjuaq

Summary:
Viral hepatitis is a common health problem in the Canadian north. This study consists of three parts. In part 1, the investigators will develop and distribute computer-based medical software programs that will enable health care providers throughout the North to identify and manage subjects with chronic viral hepatitis. The same programs will serve as the basis for a National Northern Database from which trends in viral hepatitis will be identified and monitored. Part 2 consists of analyzing the most common form of the hepatitis B virus in the Canadian North and comparing the results with analysis of the virus present in Alaska.

This work will help to determine why cirrhosis and liver cancer are more common in hepatitis B infected individuals from Alaska compared to Northern Canada. In the final part, the investigators will contact and assess individuals who were found infected with the hepatitis B virus in the late 1970s and early 1980s to determine whether their infection is still present and whether it has resulted in any health problems and specifically, liver disease over the intervening 25-30 years. In order to accomplish this, subjects will undergo a complete history and physical examination (including an ultrasound of the liver) and blood testing for signs of advanced liver disease and liver cancer.

Overall, this project will improve the quality of care provided to subjects with chronic hepatitis B and offer important insights into our understandings of this common health problem. The only field work required will be investigator visits to 2-3 northern communities to perform patient assessments. Although the project will continue from 2007 to 2011, the field work and training of northern health care providers will be accomplished within one year(April 1/08 to April 1/09).

Utilization of Prenatal Genetic Screening, Ultrasound and Diagnostic Testing in Nunavut, Canada

License Number: 05 069 11N-A
Principal Investigator

Wallace, Laura
Affiliation:
Sarah Lawrence College
Hamilton, Ontario L9A 2S3
Canada
lwallce@gm.slc.edu

Number in Party: 2
Research Area: Nunavut Wide
Communities: All Communities

Summary:
The Nunavut Maternal and Newborn Health Care Strategy seeks to build healthy families and communities with a focus on improving health through prevention.

The proposed strategy states that there is a need to improve maternal and newborn health care service capacity in Nunavut. Unique challenges in Nunavut include the highest teenage pregnancy rate in the country, an increased incidence of tobacco and alcohol exposure during pregnancy, and prominent family and emotional problems. The strategy also emphasizes the need to improve perinatal and child health surveillance and monitoring.

It is recognized that it is essential for a range of providers involved in maternal and newborn care to be recognized and supported and work as a team.

Youth Driven Development in Aboriginal Communities – Impact Evaluation of the Active Circle Initiative.

License Number: 01 027 12Registry
Principal Investigator

Levesque, Lucie
Affiliation:
Queeen's University
School of Kinesiology & Health Studies
Kingston, Ontario K7L 3N6
Canada
lucie.levesque@queensu.ca

Number in Party: 9
Research Area: Qikiqtani
Communities: Iqaluit

Summary:
The goal of this part of the project is to gather information from youth participants on how they perceive the idea of youth development.

This information will be used to develop a survey tool aimed at getting more specific information about youth development from an Aboriginal perspective. The hope is that the new survey tool can then be used to help measure the impact of programs like Active Circle.

2012 Physical Sciences Research in Nunavut

2012 Back River Baseline Program

License Number: 04 049 12R-M Amended
Principal Investigator
Muggli, Deborah
Affiliation:
Sabina Silver Corporation and Xstrata Zinc Canada
Rescan Environmental Services Ltd.
Vancouver, British Columbia V6E 2J3
CA
dmuggli@rescan.com

Number in Party: 20
Research Area: Kitikmeot
Communities: Cambridge Bay

Summary:
Sabina Silver Corporation is exploring a significant metal deposit located near the Hackett River in Nunavut.

The majority of the sampling will be restricted to the mine footprint, although samples will be taken along a proposed access route, along a alternative access route, and from reference areas removed from the mine site.Xstrata Zinc Corporation will continue exploring the deposit at Hackett River. Additional baseline studies will be conducted near the BIPR port site, along portions of the BIPR road and possibly within Bathurst Inlet.

The proposed research includes characterizing the aquatic biology and water quality of the site; characterizing terrestrial vegetation and soils; collecting baseline information on wildlife in the area; determining water drainage patterns; monitoring the permafrost in the area; characterizing the local climate; and assessing the potential for metal leaching or acid rock drainage.

This work is being done to provide baseline characterization in the area to support future Environmental Impact Assessment. Data collected will also be used to help plan future project infrastructure.

2012 Hope Bay Belt Environmental Baseline Program

License Number: 04 055 12N-M
Principal Investigator
Muggli, Deborah
Affiliation:
Rescan Environmental Services
Vancouver, B.C. V6E 2J3
Canada
dmuggli@rescan.com

Number in Party: 16
Research Area: Kitikmeot
Communities: Hope Bay Belt

Summary:
Hope Bay Mining Limited (HBML) is exploring significant metal deposits near Hope Bay, Melville Sound, Nunavut. The Doris North Gold Mine Project is currently under construction and is anticipated to move into operations in 2012. HBML is committed to support on-going exploration activities in the Hope Bay Belt, and would like to continue baseline studies in the area for potential future development. A map of the Hope Bay Belt area is included with this proposal. The majority of the sampling would be restricted to potential deposit areas, access corridors and from reference areas. Sampling could also be conducted in the marine environment for potential future marine access.

Acoustic study of marine mammals and ambient noise in Barrow Strait

License Number: 02 049 12N-M
Principal Investigator
Hildebrand, John
Affiliation:
Scripps Institute of Oceanography
La Jolla, CA 92093-0205
USA
jhildebrand@ucsd.edu

Number in Party: 2
Research Area: North Baffin
Communities: Barrow Strait

Summary:
This project seeks to understand the seasonal presence and acoustic behavior of marine mammals in Barrow Strait by conducting autonomous, long-term acoustic recording at a site south of Griffith Island.

Recordings will be compared to acoustic data collected in the 1980's by Canadian wildlife biologist, Dr. Ian Stirling, near the site (Calvert and Stirling 1985, Kingsley et al. 1985). Analyses will investigate changes in the behavior and presence of the animals over the past 30 years. Ambient noise will be characterized and quantified to provide a baseline description of the underwater acoustic environment.

An Analogue Mission to Discover the Genesis of Methane on Mars

License Number: 02 020 12N-A
Principal Investigator
Osinski, Gordon
Affiliation:
University of Western Ontario
London, Ontario N6A 5B7
Canada
gosinski@uwo.ca

Number in Party: 12
Research Area: North Baffin
Communities: Axel Heiberg Island

Summary:
The recent discovery of methane on Mars has generated much excitement in the scientific community. This is due to the fact that, on Earth, the vast majority of methane is from biogenic sources, leading to the unsubstantiated conclusion that the same is true for Mars. In addition, the localization of the methane leads to the conclusion that the production (or release) of methane is a current process.

In order to validate appropriate mission scenarios, measurement approaches, detailed science objectives, instruments and complementary measurements for an eventual mission to Mars, it is beneficial to study a local source of methane in an analogue site.

An Integrated Assessment of Contamination and Biological Response in Airport Creek, Iqaluit Nunavut

License Number: 01 013 12R-M
Principal Investigator
Quinlan, Roberto
Affiliation:
York University
Toronto, Ontario M3J 1P3
Canada
rquinlan@yorku.ca

Number in Party: 6
Research Area: South Baffin
Communities: Iqaluit

Summary:
Recent residential, commercial and industrial development in the catchments of several Arctic streams has heightened the need to accurately assess these freshwater systems. Several streams in Iqaluit, Nunavut are known to be exposed to several potential sources of contamination, including; run-off and leaching from municipal landfill sites and sewage containment areas, hydrocarbon and chemical spills (waste oil, fuel, lubricants, de-icing liquids), industrial activity, residential waste, stream channel diversion (that often accompanies road construction), and increased sedimentation from gravel haul operations.

The residents of many Arctic communities drink water from local streams and rivers, as well as harvest sea-run and land-locked char that utilize these freshwater streams for food and spawning. As the health of community residents depends on ecosystem condition much more directly than is typical of North American settlement areas, these systems are fundamentally important for community well-being.

An investigation of the sensitivity of high Arctic permafrost to climate change

License Number: 02 013 12R-M
Principal Investigator
Pollard, Wayne
Affiliation:
McGill University
Department of Geography
Montreal, Quebec H3A 2K6
CA
wayne.pollard@mcgill.ca

Number in Party: 10
Research Area: North Baffin
Communities: Ellesmere Island, Axel Heiberg Island

Summary:
This project looks at the impact of climate change on high arctic permafrost conditions and high arctic landscapes. The aims of this project are: (1) to monitor climate conditions for different types of landscape (eg tundra, mountains, coasts, wetlands ...) and assess how much the climate is changing, (2) to determine the amount and rate of landscape change caused by warming and melting permafrost, and (3) to map these changes from for the period 2007-2011.

The information collected in this study will improve our general understanding about climate and permafrost as well as help to predict how the land will respond as climates warm. This study also contributes new information about high Arctic permafrost and ground ice conditions, the sensitivity of high arctic permafrost to climate change and background data upon which landscape changes can be documented. Another component of this project looks at long-term changes in high Arctic landscapes by looking at how rock surfaces are being weathered and eroded.

This research will help northern understand how landscapes are changing and will change in the future.

Angilak Project 2012 Environmental Monitoring Program

License Number: 03 015 12N-M
Principal Investigator
Bryant, Deborah
Affiliation:
Hemmera Envirochem Inc.
Vancouver, British Columbia VSZ 2H3
Canada
dbryant@hemmera.com

Number in Party: 3
Research Area: Kivalliq
Communities: Nutaaq Camp

Summary:
We wil be collecting data om the following components:Meteorology, Dustfall, Surface hydrology, surface water quality, Benthic intervertebrates and wildlife and wildlife habitat

Anik Nickel-Copper Project

License Number: 02 038 12N-M
Principal Investigator
Moore, Steve
Affiliation:
EBA Engineering Consultants
Yellowknife, NWT X1A 2P7
Canada
smoore@eba.ca

Number in Party: 5
Research Area: North Baffin
Communities: Melville Peninsula

Summary:
Sampling will be conducted according to standardized water quality guidelines, which includes a QA/QC program.

Water samples will be collected In the Anik Project area when possible in June, July, August and September. The locations of water sampling stations will be determined when project plans are finalized. A Global Positioning System (GPS) will be used to locate all stations. Water quality samples will be collected for standard analytical parameters including ultra-low total metals, major ions, low-level nutrients and inorganics.

SGS Canada laboratory of Lakefield, Ontario will prepare the water sampling bottles for all water

sampling events. All samples will be transported in portable coolers with ice packs.

In the field, powder-less latex gloves will be worn during handling of bottles and equipment to minimize contamination. All bottles will be rinsed three times with the source water (i.e. the same water the bottle will be filled with) prior to water collection when the bottles are not precharged.

Arctic marine Ice-associated ecosystem in a Changing Environment (Arctic-ICE)

License Number: 02 023 12R-M
Principal Investigator
Gosselin, Michel
Affiliation:
University du Quesbec a Rimouski
Rimouski, Quebec G5L 3A1
Canada
michel_gosselin@uqar.gc.ca

Number in Party: 19
Research Area: North Baffin
Communities: Resolute Passage`

Summary:
Climate warming has induced rapid change on the ice-covered marine ecosystem of the high Arctic. In this project we will investigate physical and biological processes controlling the timing of marine primary production, which has been hypothesized as an indicator of potential change in the ecosystem.

We plan to conduct scientific research near Resolute Bay, Nunavut, this spring (2010) and next spring (2011). We are a group of researchers who are specialized to study the sea ice ecosystem. As part of this larger study, we will collect data to study the response of the sea ice to weather and oceanographic forcing. We hope to undertake this research in Resolute Passage west of Allen Bay (see below), for a period of about two months (May and June).

During this time, we hope to set-up two heated tents on the ice for our equipment. Our sampling will involve installing automated electronic sensors on the ice that will monitor the weather and ocean properties and currents.

Regular sampling will involve the use of ice corers, augers and ocean samplers. While at the camp, we will operate 2 generators for power supply and drip diesel furnaces for heating. We plan to live at the Polar Continental Shelf Project base near the Resolute Bay airport and travel by snowmobile to our sampling site every day, dependent on weather.

Astronomical Site Testing on Ellesemere Island

License Number: 02 039 12R-M
Principal Investigator
Steinbring, Eric
Affiliation:
Herzberg Institute of Astrophysics
National Research Council
Victoria, BC V9E 2E7
CA
eric.steinbring@nrc-cnrc.gc.ca

Number in Party: 4
Research Area: North Baffin
Communities: Ellesmere Island

Summary:
Astronomy requires clear, dry, cold skies. So, not surprosingly, 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 fobotic 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.

Baffin Island Weather Monitoring Project

License Number: 01 002 12R-M
Principal Investigator
Pfister, Shirley Standafer
Affiliation:
Peregrin Diamonds Ltd.
Vancouver, British Columbia V6B 1C6
Canada
shirley@pdiam.com

Number in Party: 3
Research Area: South Baffin
Communities: Hall Peninsula

Summary:
Due to unpredictable variables, exploration, mining and other operations in Canada's Far North must not only deal with extreme weather but a climate influx because of global processes. Weather monitoring is especially important for day-to-day operations at a remote exploration camp, for seasonal planning and for evaluating weather-related risks. However, in such an extreme and remote environment, collecting environmental data is a daunting task.

Automated sensors are an ideal solution, as they can survive and operate under extreme conditions, even when staff is not present to download information. In order to research climate change in the Far North, meteorological stations are essential. During this research project, Symboticware Incorporated of Sudbury, ON, will collect weather data for Peregrine Diamonds Ltd. at its Chidliak Project in its centrally located Discovery Camp on the Hall Peninsula, approximately 120km north of Iqaluit, NU.

The data collected will be used by Dr. Charles Ramcharan of Laurentian University in Sudbury, ON, for climate change research.

Barrow Strait Real Time Oceanographic Observatory

License Number: 02 045 12N-M
Principal Investigator
Hamilton, Jim
Affiliation:
Department of Fisheries and Oceans
Bedford Institute of Oceanography
Dartmouth, NS B2Y 4A2
Canada
jim.hamilton@mpo-dfo.gc.ca

Number in Party: 4
Research Area: North Baffin
Communities: Barrow Strait

Summary:
The goal of this project is to provide a real time ice and ocean data delivery system that includes an ice onset and break-up prediction capability in Barrow Strait at the eastern end of the Northwest Passage.

It will provide an ability to monitor and predict the evolution of the ice cover for the improved safety and efficiency of Arctic marine operations, make ice cover data and ocean measurements available to hunters and other interested parties, provide data for ice/ocean forecast models, and provide a technology that is applicable to other strategic Arctic locations. The project builds on the long term ocean monitoring study in eastern Barrow Strait that was conducted from 1998 to 2011 (under NRI license, the most recent being 02 135 11R-M).

By applying some of what was learned in that study, the real time ocean measurements this observatory will provide will allow us to predict ice break-up and freeze-up, as well as some key properties of the biological system, included seasonal productivity and seasonal timing.

Cambridge Bay Undersea Observatory.

License Number: 04 064 12N-M
Principal Investigator
Moran, Kate
Affiliation:
University of British Columbia
NEPTUNE Canada
Victoria, British Columbia V8W 2Y2
Canada
kmoran@uvic.ca

Number in Party: 3
Research Area: Kitikmeot
Communities: Cambridge Bay

Summary:
NEPTUNE Canada, a division of Ocean Networks Canada, based at the University of Victoria, in Victoria, BC, would like to install a cabled undersea observatory in Cambridge Bay, as soon as the summer of 2012. This observatory would be the first location in Canada's Arctic for year-round monitoring of the marine environment. This would improve the knowledge of the northern environment and aid in the protection of fragile arctic marine ecosystems. It would create scientific and technical training opportunities for residents of Cambridge Bay, and there would be some local employment opportunities associated with the installation, operation and maintenance of the observatory infrastructure.

The project also represents a pathfinder experiment for the future Canadian High-Arctic Research Station (CHARS), to be built in Cambridge Bay by 2017. This site was preferred for several factors: the existing community and infrastructure (power, airstrip and dock) and the opportunity for science education at the local school, the outreach potential both to the local community and to the cruise ship visitors.

Canadian Arctic Buoy Program

License Number: 02 017 12R-M
Principal Investigator
Tremblay, Bruno
Affiliation:
McGill University
Atmospheric and Oceanic Sciences
Montreal, QC H3A 2K6
CA
bruno.tremblay@mcgill.ca

Number in Party: 3
Research Area: North Baffin
Communities: 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.

CANDAC – Canadian Network for the Detection of Atmospheric Change

License Number: 02 009 12R-M
Principal Investigator
Drummond, James
Affiliation:
University of Toronto
Department of Physics
Toronto, Ontario M5S 1A7
Canada
james.drummond@utoronto.ca

Number in Party: 25
Research Area: North Baffin
Communities: Eureka

Summary:
Canadians have a special responsibility for their sovereign Arctic territory. The unique environmental conditions – extreme cold, low humidity and seasonal daylight variations – give rise to unusual climate and chemistry processes, many of which are poorly understood.

Gaps in our scientific knowledge of the Arctic impair our ability to effectively steward Canada's North. This lack of knowledge has serious social, environmental and biodiversity implications.

In 2002 a group of researchers joined together to form the Canadian Network for the Detection of Atmospheric Change (CANDAC) with the objective of improving the state of observational atmosphere research in Canada.

Chert Sourcing and Palaeo-Eskimo Stone Tool Technology

License Number: 01 016 12N-A
Principal Investigator
Milne, Brooke
Affiliation:
University of Manitoba
Department of Anthropology
Winnipeg, Manitoba R3T 5V5
Canada
brooke.milne@umanitoba.ca

Number in Party: 5
Research Area: South Baffin
Communities: Amadjuak Lake, Mingo Lake

Summary:
Archaeologists refer to the original inhabitants of the Arctic as Paleo-Eskimos, and chert or ammaaq was the most common type of stone they used to make their stone tools.

However, we know very little about how these people acquired this stone, when, and from where exactly.In the interior of Baffin Island, oral histories have long attested to the presence of chert in the region.Amadjuak Lake, or Ammaaq Lake, is an important place to find chert and our previous research in the area has identified widespread surfaces surface scatters of this stone thereby confirming its presence in the area.

If we can locate the precise geological sources of ammaaq in the interior region, it will help us resonstruct how people were moving across the landscape throughout the entire southern Baffin region.

Climate change effects of a changing cryoshpere on Northern lakes

License Number: 02 028 12R-M
Principal Investigator
Prowse, Terry
Affiliation:
University of Victoria
Water & Climate Impacts Research Centre/Environment Canada
Victoria, BC V8W 3R4
Canada
terry.prowse@ec.gc.ca

Number in Party: 6
Research Area: North Baffin
Communities: Cornwallis Island, Axel Heiberg Island, Victoria Island, Ellesmere Island, Queen Maude Gulf

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 2011. Sampling will be completed by contracted local staff/individuals at the lake site.

Field Reconnaissance for favorable lake locations around Cambridge Bay will be completed in May 2011. Deployment of the Arctic Lake Monitoring System buoy and mooring near Cambridge Bay is scheduled for late August, 2011.

Community based seawater monitoring for legacy and current use organic contaminants in the Canadian, high Arctic Archipelago

License Number: 02 025 12N-A
Principal Investigator
Muir, Derek
Affiliation:
Environment Canada
Burlington, Ontario L7R 4A6
Canada
derek.muir@ec.gc.ca

Number in Party: 6
Research Area: North Baffin
Communities: Resolute Bay

Summary:
In June 2007, 2008 and 2010 we analyzed seawater samples for important contaminants from the Barrow Strait region of the Canadian Arctic. Samples were collected using portable pumps through holes in the sea ice.

The sea ice conditions have been different every year, and we found lower concentrations of the contaminants during the year when there was no melt during sampling. This might mean that the ice cover has an important effect on these contaminants.

Sampling in 2011-2012 would also allow us to compare trends of these contaminants over several years, so we can see how they are behaving over time.

Determining rate constants for reduction and oxidation of mercury species in Arctic ocean water, snow and snowmelt: understanding variability under different chemical regimes, and use in Arctic multimedia mercury modeling.

License Number: 02 018 12N-A
Principal Investigator
Mann, Erin
Affiliation:
Acadia University
Environmental Science
Wolfville, Nova Scotia B4P 2R6
Canada
erin.mann@mun.ca

Number in Party: 3
Research Area: North Baffin
Communities: Resolute Bay

Summary:
Mercury is a contaminant that is increasing in the Nunavut environment and wildlife it supports. Since mercury is toxic it is critical to understand how it moves from the atmosphere into the terrestrial and aquatic ecosystem and ultimately accumulates to high levels in fish and mammals.

There has been significant mercury research in the Arctic; however, the chemical processes that control mercury movement between air, snow, and water are not well characterized. The purpose of this research is to measure mercury in frozen and melted snow in relation to salt content, temperature, and light conditions.

We will collect snow samples from three sites within 50 km of Resolute Bay, NU in March, 2012.

Disappearing Ice Caps

License Number:
Principal Investigator
Miller, Gifford
Affiliation:
University of Colorado
Boulder, Colorado 80309-0450
USA
gmiller@colorado.edu

Number in Party: 3
Research Area: North & South Baffin
Communities: North & South Baffin Island

Summary:
Our primary goal is to understand how climate is changing now and has changed in the past. We address these two questions by collecting tundra plants exposed by the melting of ice caps. We can determine how old the plants are by radiocarbon dating, which tells us when the ice cap formed, and how long ago it was that the summers were as warm as a present.

Dr. Neil Trivett Global Atmosphere Watch laboratory at Alert, Nunavut

License Number: 02 004 12R-M
Principal Investigator
Shepherd, Marjorie
Affiliation:
Environment Canada
Climate Research Division
Toronto, Ontario M3H 5T4
Canada
marjorie.shepherd@ec.gc.ca

Number in Party: 4
Research Area: North Baffin
Communities: Alert

Summary:
Alert, Nunavut is the location of the Global Atmosphere Watch Research Station. Changes in the atmosphere are monitored here, providing a significant Canadian scientific presence in the North contributing to both Canadian and global environmental issues. Our work here leverages significant international science to meet Canada's interests in providing guidance to understanding the impacts of future development and increased transportation activities in the North.

DRDC Northern Watch Technology Demonstration Project

License Number: 02 040 12R-M
Principal Investigator
Hazen, David
Affiliation:
Defence Research & Development Canada
Dartmouth, NS B2Y 3Z7
Canada
dave.hazen@drdc-rddc.gc.ca

Number in Party: 21
Research Area: North Baffin
Communities: Lancaster Sound

Summary:
The DRDC Northern Watch Technology Demonstration Project will demonstrate an Arctic maritime surveillance capability to the Department of National Defence and other concerned federal departments. This is a multi-year undertaking and is based at Gascoyne Inlet.

The surveillance demonstration system will be unmanned, semi-autonomous, and remotely controlled through a satellite system connection to one of the DRDC centres.

The project plan will culminate in a 6 month capability demonstration between August 2014 and August 2015. At the end of the project all buildings and equipment will be removed from the site.

Northern Watch Technology Demonstration Project (NWTDP) will be conducting further trials in Nunavut, based out of the Gascoyne Inlet Camp (GIC) and from Canadian Forces Auxiliary Vessel (CFAV) Quest in July & August 2012

Dynamics and Change of the Devon Ice Cap

License Number: 02 010 12R-M
Principal Investigator
Sharp, Martin
Affiliation:
University of Alberta
Department of Earth & Atmospheric Sciences
Edmonton, Alberta T6G 2E3
Canada
martin.sharp@ualberta.ca

Number in Party: 6
Research Area: North Baffin
Communities: Devon Island

Summary:
Project Description: The project goal is to describe and explain ongoing changes in the area, mass and flow of the Devon Island ice cap so that we can estimate its recent current and future contribution to changes in global sea level.

We are interested in how climate warming may cause faster flow of glaciers that end in the ocean, and how faster flow may lead to more mass loss by iceberg calving. Our work combines field studies with satellite and airborne remote sensing, and with modeling of ice cap flow and interactions with the atmosphere.

Our fieldwork involves calibrating and validating measurements made by remote sensing, and measuring changes in ice thickness, snow properties, glacier flow, meltwater production and runoff, and rates of iceberg calving. It provides us with data that we can use in our models.

We access the ice cap from Resolute Bay by PCSP Twin Otter or helicopter, and travel on the ice by snowmobile or helicopter. Each year we establish a base camp on the ice cap summit where we store food, equipment and fuel.

Most work is carried out from mobile 2-person camps. We install some instruments on or adjacent to the ice, but all will be removed at the end of the project so that the ice cap is left as we found it.

Ellesmere Island Teleseismic Experiment

License Number: 02 008 12R-M
Principal Investigator
Oakey, Gordon
Affiliation:
Geological Survey of Canada(Atlantic)
Dartmouth, NS B2Y 4A2
CA
goakey@nrcan.gc.ca

Number in Party: 4
Research Area: North Baffin
Communities: Ellesmere Island

Summary:
Purpose: The Geological Survey of Canada (GSC) has initiated a new Geomapping for Energy and Minerals (GEM) Program to identify new resources and stimulate economic growth in the Canadian Arctic.

Goals and Objectives: The GSC is planning to establish an array of passive observatories to measure seismic activity from naturally occurring earthquakes to map the regional variability of the earth's crust to better understand the development of the present-day topography and the formation of the Sverdrup Basin and polar continental margin.

Method of Transportation: The scientists plan to operate out of the Eureka Weather Station and make daily Twin Otter flights to the seismic station locations. Logistical support is being coordinated with the Polar Continental Shelf Program (PSCP).

Structures/Restoration/Abandonment: The seismic station units will be set up as temporary installations for the duration of the project. The stations will be revisited annually to refurbish the equipment. All equipment will be removed from the field at the end of the experiment.

Environment Canada Arctic Municipal Wastewater Research

License Number: 05 071 12R-M
Principal Investigator
Urbanic, Jane Challen
Affiliation:
Environment Canada
Burlington, Ontario L7R 4A6
Canada
jane.challen-urbanic@ec.gc.ca

Number in Party: 8
Research Area: Nunavut Wide
Communities: Gjoa Haven, Kugaaruk, Iqaluit, Qikiqtarjuaq

Summary:
Environment Canada is conducting a study on wastewater treatment in communities of Canada's Arctic including sites in the Northwest Territories, Nunavut, Northern Quebec and Northern Labrador. The purpose of this research is to assess the performance of sewage lagoons and wetlands in the treatment of municipal wastewater.

In 2011 Environment Canada hopes to conduct extensive sampling at five municipal wastewater systems and less intensive sampling at other treatment systems in Nunavut if funding permits.

Researchers will travel to sampling sites via commercial flights. No permanent or temporary structures will be erected as a result of this research program.

Due to the minimal impact of this research there are no plans for restoration or abandonment.

Environmental Baseline Data Collection, Meliadine Gold Project, Agnico-Eagle Mines Ltd.

License Number: 03 007 12N-M
Principal Investigator
Witteman, John
Affiliation:
Agnico Eagle Mines Ltd.
Canmore, Alberta T1W 2K2
Canada
jwitteman@agnico-eagle.com

Number in Party: 10
Research Area: Kivalliq
Communities: Meliadine

Summary:
The purpose of the project is to collect baseline data in support of an Environmental Impact Statement being prepared for the Meliadine Gold Project. The goal is to collect sufficient information to characterize the "before development" of areas likely to be impacted by the development of the mine.

Local roads will be used in Rankin Inlet to access the Itivia barge landing area with a boat and driver rented in town. An Inuit assistant will be hired to participate in sample collection.

The Meliadine site is 25 northwest of Rankin Inlet. A helicopter contracted for exploration activities and located at the Meliadine site will be used to access areas to be sampled in the vicinity of the mine development. An Inuit Assistant will provide support in taking samples and at the same time learn various sampling techniques.

The existing Meliadine exploration camp will be used for accommodation as will a hotel in Rankin Inlet. A reclamation plan has been filed for the Meliadine camp with the Nunavut Water Board.

Geology of the Mesoproterozoic Bylot Basins, Nunavut

License Number: 02 024 12R-M
Principal Investigator
Turner, Elizabeth
Affiliation:
Laurentian University
Department of Earth Sciences
Sudbury, Ontario P3E 2C6
Canada
eturner@laurentian.ca

Number in Party: 4
Research Area: North Baffin
Communities: Bylot Island Basins

Summary:
This project's field activity in 2011 focussed on the origin of a set of 1.1 billion year-old dolostone rocks on northern Baffin Island. The dolostone was deposited in an ancient ocean during a time when Earth's crust in what is now eastern Nunavut was stretching and forming a low area filled by sea water, which spans what is now northern Baffin Island. These dolostone masses were deposited in deep water only where regional fractures in Earth's crust reached the sea floor; the fractures facilitated stretching and faulting of the crust and emitted fluids that promoted dolostone formation.

Geoscientific project to study gold mineralization at the Meadowbank mine and Meliadine

License Number: 03 009 12R-M
Principal Investigator
Castonguay, Sebastien
Affiliation:
Geological Survey of Canada
Quebec City, Quebec G1R 1C9
Canada
sebastien.castonguay@rncan-nrcan.gc.ga

Number in Party: 5
Research Area: Kivalliq
Communities: Meadow Bank Mine
Meliadine Deposit

Summary:
This study will help improve our ability to predict the locations of mineralization and thus reduce the economic risks of exploration in Canada's North. We

will also try to determine why some formations are barren while others are fertile (gold bearing). Nunavut deposits give us the opportunity to study this important scientific question by looking simultaneously at various gold deposits in an integrated study.

Glacier Mass Balance and Pollution Studies in the Canadian high Arctic

License Number: 02 003 12R-M

Principal Investigator
Burgess, David
Affiliation:
Canada Centre for Remote Sensing
Ottawa, Ontario K1A 0Y7
CA
David.burgess@nrcan.gc.ca

Number in Party: 3
Research Area: North Baffin
Communities: 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 (Figure 1). 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. Knowledge of the annual variability of pollen and pollutant concentrations at the monitoring locations improve provide important information towards quantifying current trends in levels of atmospheric pollution, understanding atmospheric circulation patterns, and interpreting long-term pollution trends from ice cores.

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.

Glacier-Climate Studies on the Prince of Wales Icefield, Ellesmere Island

License Number: 02 030 12N-A

Principal Investigator
Marshall, Shawn
Affiliation:
University of Calgary
Department of Geography
Calgary, Alberta T2N 1N4
Canada
shawn.marshall@ucalgary.ca

Number in Party: 4
Research Area: North Baffin
Communities: Ellesmere Island

Summary:
As glaciers retreat, they expose bare land that heats up during the summer months, providing a source of heat that can increase melt rates for adjacent glacier ice.

Past studies by my research group on the Prince of Wales (POW) Icefield, Ellesmere Island, record these influences, but we have not systematically studied them; in summer 2012 I propose to set up a transect of weather stations on the southwestern margin of the POW Icefield and carry out a series of tethersonde ('weather kite') measurements of the atmospheric boundary layer, to ~300 m depth, to measure the

atmospheric structure, energy balance processes, and heat transfer to the icefield.

The proposed research will further understanding of glacier-climate processes and glacier response to climate change. We will also be measuring meltwater runoff from the glacier, which will contribute to understanding of high Arctic hydrology.

Ground ice dynamics and influence on vegetation microtopography of a polar desert ecosystem in the Canadian High Arctic

License Number: 02 011 12R-M
Principal Investigator
Becker, Michael
Affiliation:
McGill University
Montreal, Quebec H2A 2M5
Canada
michael.becker@mail.mcgil.ca

Number in Party: 2
Research Area: North Baffin
Communities: Axel Heiberg Island, Ellesmere Island

Summary:
The focus of my Ph.D. research is the effect of climate change on ground ice systems with an emphasis on thaw processes and its influence on ecosystems.

The question is to what extent does the ecosystem control its own development and environment by mediating the effects of changing ground ice. I will describe why a given vegetation abundance and diversity is found due to ground ice dynamics. I will examine two geocryogenic processes: active layer dynamics of permafrost and the formation/degradation of ice wedges.

Ice wedges are likely an early indicator for changing permafrost. Since ice wedge tops are usually in equilibrium with current active layer dynamics, any change in active layer depth should cause a measurable change at the ground surface along the ice wedge trough.

In turn, this should change several aspects of the surface hydrologic systems (e.g. trapping snow, pooling surface water…) and available moisture for tundra vegetation and soil microorganisms.

Hall Peninsula Integrated Geoscience Project

License Number: 01 005 12N-M
Principal Investigator
Mate, David
Affiliation:
Natural Resources Canada
Canada Nunavut Geoscience Office
Iqaluit, Nunavut X0A 0H0
Canada
dmate@nrcan.gc.ca

Number in Party: 25
Research Area: South Baffin
Communities: Hall Peninsula

Summary:
The geology of the Hall Peninsula (HP) is very poorly understood as it has only been mapped at reconnaissance scale (1: 5 000 000 scale). The mineral exploration potential of this region is largely unknown, except for recent discoveries of diamond-bearing kimberlites. More detailed and improved

mapping will help decipher the potential for gold, precious metals, base metals and rare earth elements in the region.

The Quaternary history of the peninsula is also complex and poorly understood. Glacial dynamics models and ice-flow history suitable for effective drift exploration are inadequate and there are currently no surficial geology maps of the Peninsula at a scale useful for mineral exploration and land-use planning.

HAUGHTON-MARS PROJECT (HMP)

License Number: 02 043 12R-M
Principal Investigator
Lee, Pascal
Affiliation:
NASA
Mars Institute
Moffett Field, California 94035-1000
USA
pascal.lee@marsinstitute.net

Number in Party: 12
Research Area: North Baffin
Communities: Haughton Crater, Devon Island

Summary:
Haughton Crater and surrounding terrain on Devon Island are of great scientific value for Earth, Space and Life Sciences Research.

The site presents many exceptional attributes not found elsewhere on Earth, in particular the presence of a large, well-preserved meteorite impact crater and other unique terrain features similar to the Moon or Mars. Devon Island has been used by the Haughton-Mars Project (HMP) for this type of research since the project began in 1997. The base camp for this project is called the Haughton-Mars Project Research Station or HMP RS.

Current plans of government space agencies around the world include the possibility of sending humans to the Moon by 2017-2025 and on to Mars in 2025-2035. The Haughton-Mars Project plans to continue conducting research to help achieve these goals and also possibly the next steps beyond. It is anticipated that the HMP RS will continue to be operated in support of these endeavors until at least 2017 and possibly beyond.

Activities on the HMP include: a) the scientific study of Haughton Crater and surrounding terrain (the history of water and the adaptations of microbial life to extreme environments); b) the testing and validation of new technologies and approaches for space exploration, including rovers, habitats, tools and instruments; c) education and public outreach activities.

Helicopter electromagnetic measurements of the sea ice mass balance

License Number: 02 012 12R-M
Principal Investigator
Haas, Christian
Affiliation:
University of Alberta
Department of Earth and Atmospheric Sciences
Edmonton, AB T6G 2E3
CA
Christian.Haas@ualberta.ca

Number in Party: 6
Research Area: North Baffin
Communities: 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.

High Arctic Permafrost Landscape Stability and Water Quality, Sabine Peninsula, Melville Island Nunavut

License Number: 02 016 12R-M

Principal Investigator
Lafreniere, Melissa
Affiliation:
Queen's University
Department of Geography
Kingston, Ont K7L 3N6
Canada
melissa.lafreniere@queensu.ca

Number in Party: 4
Research Area: North Baffin
Communities: Melville Island

Summary:
The aim of the research project is to develop knowledge to help predict what landscape controls affect water quality. In particular, we will study the impact of natural permafrost and vegetation disturbances. We will map permafrost disturbances (1954-present) with satellite images and aerial photographs, and develop a landscape model to predict future disturbances across different rock, slope and plant surfaces.

We will also integrate water quality monitoring to create models to predict changes in water quality associated with permafrost disturbance. These models will be of primary value to effectively manage this region of the High Arctic in a changing climate and to support the development of natural gas resources in the region in the future.

Hummocked Multi-year Ice: The Most Severe, but Least Understood Type of Sea Ice

License Number: 02 021 12N-M

Principal Investigator
Johnston, Michelle
Affiliation:
National Research Council
Canadian Hydraulics Centre
Ottawa, Ontario K1A 0R6
Canada
michelle.johnston@nrc-cnrc.gc.ca

Number in Party: 5
Research Area: North Baffin
Communities: Cornwallis Island

Summary:
The goals of the 2012 research project are to (1) test our new equipment in level first year ice, (2) use the new equipment to measure the temperature, salinity and strength of up to three multi-year ice floes, to a depth of 10 m and (3) conduct detailed thickness measurements those same three floes.

This information will allow us to provide evidence that the oldest multi-year ice floes remain solid/strong deep below their surface, but younger forms of multi-year ice (more recently developed) are more porous/weaker. Since younger multi-year ice tends to deteriorate much more rapidly, that may explain the deterioration of multi-year ice in the polar pack.

Hydrology and Resilience of High Arctic Wetlands: Submerging vs. Emerging Ecosystems

License Number: 02 137 12R-M

Principal Investigator

Young, Kathy

Affiliation:

York University
Geography Department
Toronto, ON M3J 1P3
Canada
klyoung@yorku.ca

Number in Party: 6
Research Area: North Baffin
Communities: Ellesmere Island, Somerset Island, Bathurst Island

Summary:
The overall purpose of this study is to improve understanding of the seasonal hydrology of "sinking" or submerging coastal wetlands located on Melville Island and to understand how they are responding to rising sea level, wave action (both tidal and storm surges) and erosion from thick multi-year ice which moves through the Melville-Bathurst Island corridor. Ongoing wetland studies have been ongoing at Polar Bear Pass, Bathurst Island since about 2007. I would like to compare the hydrology of these wetlands to the wetland ecosystem at Polar Bear Pass (an emerging site-rising), where snowcover, pond storage and runoff studies will continue for the same interval. The new site at Alison Inlet (studying snowcover & runoff) is another example of an emerging extensive wetland site on Bathurst Island.

Ice Islands of the Eastern Canadian Arctic

License Number:

Principal Investigator

Mueller, Derek

Affiliation:

Carleton University
Department of Geography
Ottawa, Ontario K1S 5B6
Canada
derek_mueller@carleton.ca

Number in Party: 8
Research Area: North & South Baffin
Communities: Canadian Arctic Archipelago, Arctic Ocean, Baffin Bay

Summary:
This research program brings together an international team of researchers to continue previous study on the drift, deterioration and shape of ice islands (large tabular icebergs of Arctic ice shelf or floating glacial tongue origin) in the Eastern Canadian Arctic. Four ice islands were studied in July and October of 2011 and future research will build on this work in 2012 and beyond. Ice islands have extensive dimensions (1 km2 to 250 km2) and are considered ice hazards for shipping and natural resource exploration and development in the Canadian Arctic and Sub-Arctic. The objective of this work is to better understand the drift and deterioration of these ice islands. This will allow for accurate size and location prediction and proper risk assessment and management by stakeholders.

Ice Islands of the Eastern Canadian Arctic

License Number: 02 047 12R-M
Principal Investigator

Mueller, Derek
Affiliation:
Carleton University
Department of Geography
Ottawa, Ontario K1S 5B6
Canada
derek_mueller@carleton.ca

Number in Party: 8
Research Area: North & South Baffin
Communities: Canadian Arctic Archipelago, Arctic Ocean, Baffin Bay

Summary:
This research program brings together an international team of researchers to continue previous study on the drift, deterioration and shape of ice islands (large tabular icebergs of Arctic ice shelf or floating glacial tongue origin) in the Eastern Canadian Arctic. Four ice islands were studied in July and October of 2011 and future research will build on this work in 2012 and beyond. Ice islands have extensive dimensions (1 km2 to 250 km2) and are considered ice hazards for shipping and natural resource exploration and development in the Canadian Arctic and Sub-Arctic. The objective of this work is to better understand the drift and deterioration of these ice islands. This will allow for accurate size and location prediction and proper risk assessment and management by stakeholders.

Impacts from climate change on berry productivity in the Kitikmeot Region: Integrating traditional knowledge and community participation with science.

License Number: 04 062 12N-M
Principal Investigator

Desrosiers, Sarah
Affiliation:
University of British Columbia
Vancouver, British Columbia V6T 1Z2
Canada
desrosie@gmail.com

Number in Party: 4
Research Area: Kitikmeot
Communities: Kugluktuk

Summary:
Part of IPY CiCAT (Climate Change Impacts on Canadian Arctic Tundra), the main goals of this project is to improve our knowledge of the ecology of berry producing species and to establish a long-term community based monitoring project using berry species and shrub growth as indicators of climate change.

We are also interested in integrating local and traditional ecological knowledge with scientific data on variations in annual productivity of commonly used berries: Cranberry (Vaccinium vitis-idaea), Crowberry (Empetrum nigrum), Blueberry (Vaccinium uliginosum) and Cloudberry (Rubus chamaemorus).

Thus, this summer we will be facilitating an oral history training workshop for youth where students will be trained to interview elders about berries (language, ecology, uses and geographic information).

Investigation of Climate Change Effects on Arctic Lake Sediment Biochemistry

License Number: 02 036 12N-A
Principal Investigator
Drevnick, Paul
Affiliation:
Universite du Quebec
Quebec City, Quebec G1K 9A9
Canada
paul.drevnick@inrs.ca

Number in Party: 6
Research Area: North Baffin
Communities: Cornwallis Island

Summary:
The average annual air temperature at Resolute Bay is cold (-16.4˚C), but summers are getting warmer.

Year 2011 provided an extreme example: 37 days during June, July, and August had temperatures that exceeded 10˚C, with an all-time recorded high of 18.7˚C on July 9th . We were in Resolute Bay during July and August (for the NCP-sponsored char monitoring project) and observed that the warm temperatures extended to local lakes.

Ice break-up occurred during the first two weeks of July, and water temperatures peaked soon thereafter – exceeding 10˚C in all lakes measured (Char, Meretta, North, Plateau, Resolute, Small). To put these observations into perspective, during the Char Lake Study of 1969-1972 only 15 days during June, July, and August (avg. per year) had air temperatures that exceeded 10˚C, ice break-up occurred during late July or mid-August or not at all, and water temperatures rarely exceeded 4˚C.`

Irvine Inlet, NU Aeromagnetic Survey

License Number:
Principal Investigator
Miles, Warner
Affiliation:
Geological Survery of Canada
Ottawa, Ontario K1A 0E9
Canada
wmiles@nrcan.gc.ca

Number in Party: 5
Research Area: South Baffin
Communities: Hall Peninsula

Summary:
The purpose of the airborne survey is to acquire high resolution aeromagnetic data to provide publically available geoscience information to inform lad use decisions by landowners, governments and industry.Aeromagnetic surveys measure magnetic proprties of bedrock and are one of the tools used in geological mapping.

This 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 activitites, and provide useful information necessary for communitites, aboriginal associations and government to make land use decisions.

Izok and High Lake Project 2012 Environmental Baseline Program

License Number: 04 054 12N-M
Principal Investigator
Trusler, Scott
Affiliation:
Minerals and Metals Group
Vancouver, BC V6C 3E1
Canada
scott.trusler@mmg.com

Number in Party: 8
Research Area: Kitikmeot
Communities: Bathurst Inlet

Summary:
MMG Canada Inc. (MMG) is preparing and planning data collection for the preparation of a project proposal and a Draft EIS. The deposits for the proposed project are located at the High Lake and Izok sites. Ore concentrate (zinc, copper) will be transported to an Arctic port at Grays Bay by an all-season road. The closest communities in the Kitikmeot include Kugluktuk and Bathurst Inlet.

MMG has retained a team of experienced environmental consultants to undertake baseline field programs.

The overall objective of the baseline field programs is to gather information that can help MMG understand and document the potential environmental effects of the project. This information can also be used to develop mitigation measures and plans for the project.

The planned field studies are scheduled to begin in April 2012 and continue to September 2012. The field program includes studies in hydrology, water and sediment quality, marine environment, vegetation and habitat mapping.

Land and water research at the Cape Bounty Arctic Watershed Observatory (CBAWO), Melville Island

License Number: 02 015 12R-M
Principal Investigator
Lamoureux, Scott
Affiliation:
Queens University
Department of Geology
Kingston, Ontario K7L 3N6
Canada
scott.lamoureux@queensu.ca

Number in Party: 14
Research Area: North Baffin
Communities: Cape Bounty

Summary:
We plan on continuing to study the lakes and rivers of Cape Bounty in the summer of 2011. There will be five people in a small camp for eight days in early August. Like all previous years, all activities will be conducted on foot.

We will be brought to and from the site by twin otter and helicopter. No permanent structures exist at the site. We are planing more trips to Resolute and the school to share our research with the community.

Long-term limnological and paleolimnological monitoring of Nettilling Lake, central Baffin Island, Nunavut, Canada.

License Number: 01 006 12N-M
Principal Investigator

Pientiz, Reinhard
Affiliation:
Universite Laval
Centre d'Etudes Nordiques
Quebec City, Quebec G1V 0A6
Canada
reinhard.pienitz@cen.ulaval.ca

Number in Party: 6
Research Area: South Baffin
Communities: Nettilling Lake

Summary:
Lakes and ponds are a major feature of the arctic landscape, and these contain sediment archives from which biological, physical and chemical proxies can be extracted to reconstruct climate and environmental changes through time.

To explore the past and recent natural environmental climate fluctuations of central Baffin Island, we are planning on collecting sediment cores and installing data loggers in Nettilling Lake.

The faunal (chironomids) and floral (diatoms) fossil assemblages within each sedimentary sequence will be analysed, along with sedimentological and geochemical analyses to quantitatively track long-term environmental changes during the last postglacial period, which covers approximately the last 6000 years.

Marine Microbial Bioprospecting in Nunavut – A Pilot Program

License Number: 05 010 12N-M
Principal Investigator

Kerr, Russell
Affiliation:
University of Prince Edward Island
Charlottetown, PEI C1A 4P3
Canada
rkerr@upei.ca

Number in Party: 10
Research Area: Nunavut Wide
Communities: Arctic Bay, Cambridge Bay, Clyde River, Iqaluit, Rankin Inlet

Summary:
The goal of this project is to learn more about the microbes (tiny, microscopic organisms) that live in mud and in other small marine invertebrates (like sponges, and corals) on the sea bottom in Nunavut. This is the first year of a project that we hope will continue until 2014. In 2012, we will collect marine samples from near Iqaluit, Clyde River, Igloolik, and possibly from Arctic Bay, Cambridge Bay, and Rankin Inlet as well.

A sample collection kit, including detailed instructions in English and Inuktitut, and materials for sample storage and collection will be distributed in advance to people in the communities collecting samples.

In each community, about 5 to 10 mud samples and the same number of invertebrates (clams, sponges and corals) will be collected at low tide on foot or by ATV, or from a boat, by local residents using simple equipment such as small sterile tubes (50ml), sterile plastic bags, and a special sediment collecting device.

Mary River Project

License Number: 02 034 12R-M
Principal Investigator
Curran, Oliver
Affiliation:
Baffinland Iron Mines Corporation
Sustainable Development
Toronto, Ontario M5H 1T1
Canada
oliver.curran@baffinland.com

Number in Party: 5
Research Area: North Baffin
Communities: Steensby Port, Mary River, Milne Port/Road

Summary:
Baffinland and its consultants have carried out environmental baseline studies for a number of years, since about 2005. Baffinland plans to continue some aspects of its baseline studies to establish future monitoring programs that will begin as early as next year during construction. A research licence from the

Nunavut Research Institute is being sought for ongoing freshwater and sediment quality work. Separate permits are being sought for archaeology and wildlife from the Government of Nunavut, and a scientific licence will be sought from the Department of Fisheries and Oceans related to fish and fish habitat work.

Standard water and sediment sampling methodologies will be used, consistent with those described in the baseline studies attached to the Final EIS. Sampling locations will be accessed by foot, by truck (along the tote road) or by helicopter, as necessary. The field staff will be located in the existing camp facilities at Mary River and Steensby Port.

Microbial Bioprospecting in Nunavut - A Pilot Program

License Number:
Principal Investigator
Kerr, Russell
Affiliation:
University of Prince Edward Island
Biology Department
Charlottetown, PEI C1A4P3
Canada
rkerr@upei.ca

Number in Party: 7
Research Area: Nunavut Wide
Communities: Intertidal areas around Iqaluit, Clyde River, Igloolik, Iqaluit, Arctic Bay, Rankin Inlet, Cambridge Bay

Summary:
The goal of this project is to learn more about the microbes (tiny, microscopic animals) that live in mud and in other small marine invertebrates (like sponges, and corals) on the sea bottom in Nunavut. This is the first year of a project that we hope will continue until 2014. In 2012, we will collect marine samples from tidal areas within the municiaplities of Iqaluit, Clyde River, Igloolik, Arctic Bay, Cambridge Bay, and Rankin Inlet.

Some samples will also be collected by boat from areas around inner Frobisher Bay. Samples will be sent to the Nunavut Research Institute laboratory in Iqaluit where they will be cleaned and prepared by NRI staff and students. Prepared samples will then be sent to a laboratory at the University of Prince Edward Island where microbes in them will be purified, identified, and used by researchers to search for new natural products.

Microbial investigations of perennial springs, permafrost and ground ice in the high Arctic

License Number: 02 019 12R-M
Principal Investigator
Whyte, Lyle
Affiliation:
McGill University
Dept. of Natural resource Sciences
St. Anne de Bellevue, Quebec H9X3V9
Canada
whyte@nrs.mcgill.ca

Number in Party: 6
Research Area: North Baffin
Communities: Axel Heiberg

Summary:
Relitively few reports are found describing the ecology and biodiversity of microbial communities in the Canadian high Arctic where unique habitats exist including cold perennial salt springs, glacial ice and sub glacial soil, permafrost and ground ice, and cryptoedoliths (mocrobial communities within rocks). Little is knows about the traits that enable such microorganisms to survive and thrive in these extreme habitats.

Therefore, I am presently developing and expanding a research program focused on Arctic mocrobial biodiversity and ecology studies in these habitats to expand our basic knowledge of Arctic microbial communities, to determine the utility of these unique environments as analogs to those which may exist or existed on Mars, and, in the longer term, the potential biotechnological applications of cold adapted microorganisms (examples: antifreeze protiens, polyunsaturated fatty acids.) In 2003, small representative samples (~2 kg of soil/ permafrost or 2-4 L of water) of the mocrobial populations will be obtained from the Eureka and Axel heiberg sites.

Microbial biodiverstiy research will be conducted in my lab at McGill University on the collected samples. This data will provide information on the mocrobial populations associated with these sites, the physiological types that are involved in biogeochemical processes and hopefully establish which organisms become fossilized or preserved in the system.

Northern Boothia Peninsula Aeromagnetic Survey

License Number:
Principal Investigator
Miles, Warner
Affiliation:
Geological Survey of Canada
Natural Resources Canada
Ottawa, ON K1A 0E9
Canada
wmiles@nrcan.gc.ca

Number in Party: 2
Research Area: Kitikmeot
Communities: Boothia Peninsula

Summary:
The purpose of this airborne survey is to acquire high-resolution aeromagnetic data to provide publically available geoscience information to inform land-use decisions by landowners, governments, and industry. 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 survey will be flown to improve our knowledge of the area. It will support potential future ground-based geological mapping and to provide basic information to support mineral exploration.

Northern Ellesmere Ice Shelves, Epishelf Lakes and Climate Impacts

License Number: 02 022 12N-M
Principal Investigator
Copland, Luke
Affiliation:
University of Ottawa
Department of Geography
Ottawa, Ontario K1N 6N5
Canada
luke.copland@uottawa.ca

Number in Party: 4
Research Area: North Baffin
Communities: Ellesmere Island

Summary:
This research program will continue work on the current characteristics and stability of the northern Ellesmere Island ice shelves and adjacent multiyear landfast sea ice. Fieldwork started at this location in 2008, and will continue for the foreseeable future. Almost all of the ice shelves in this region have experienced dramatic break-ups over the last eight years, so this project aims to improve understanding of the causes of these events and the fate of the remaining ice shelves and related ice features.

Occurrence, Mineralogy, and Trace Element Geochemistry of Base Metal Gossans and their Reactive Zones in Permafrost: Cornwallis Island, Nunavut.

License Number:
Principal Investigator
Williamson, Marie-Claude
Affiliation:
Geological Survey of Canada
Ottawa, Ontario K1A 0E8
Canada
mwilliamson@nrcan.gc.ca

Number in Party: 3
Research Area: North Baffin
Communities: Cornwallis Island

Summary:
The project goal is to determine how the metals contained in mine waste are dispersed in the ground and local streams or lakes in an area where permafrost encloses the waste. The lead zinc and copper deposits of eastern Cornwallis Island create an ideal natural laboratory to study these reactions. The natural exposures of metallic ore are comparable to the mine waste deposits that result from the extraction of base metals for industrial purposes.

The natural occurrences have the advantage that they have been exposed for thousands of years so we can observe the effects of long-term processes affecting these materials and the enclosing permafrost. A better understanding of these processes will allow us to design effective and safe ways of containing mine waste in the Arctic environment.

Oceanography of the Canadian High Arctic in Winter: A Continuation of the International Polar Year (IPY) – Canada's Three Oceans (C3O) Project

License Number: 04 064 12R-M
Principal Investigator
Vagle, Svein
Affiliation:
Department of Fisheries and Oceans
Institute of Ocean Sciences
Sidney, BC V8L 4B2
Canada
svein.vagle@dfo-mpo.gc.ca

Number in Party: 5
Research Area: Kitikmeot
Communities: M'Clintock Channel, Peel Sound, Queen Maud Gulf, Coronation Gulf

Summary:
The waters and associated sea ice cover of the Canadian High Arctic are expected to undergo dramatic alterations due to climate change. Despite the importance of these waters to issues concerning sovereignty, resource development, transportation and biodiversity, there is virtually no baseline oceanographic data upon which to gauge future change.

Canada's three oceans (the Atlantic, the Arctic and the Pacific) are dynamically interconnected. The C3O project was designed to take a physical, chemical and biological snapshot of all three oceans to evaluate connections, features and processes within the Canadian ocean environment. In particular, it is

important to collect data to characterize winter (ice-covered) conditions.

The intent is to provide a history and baseline data from which to begin long-term monitoring of Canada's oceans and to identify possible impacts of climate change.

Pan-Arctic Measurements and Arctic Regional Climate Model Simulations (PAMARCMIP) 2012

License Number: 02 006 12R-M

Principal Investigator

Strapp, J.Walter

Affiliation:

Environment Canada
Meteorological Research Division
Toronto, Ontario M3H 5T4
Canada
walter.strapp@ec.gc.ca

Number in Party: 9
Research Area: North Baffin
Communities: Alert, Eureka, Resolute Bay

Summary:
The airborne research project PAMARCMIP-2012 will study the meteorology, air quality, and sea ice thickness in the Arctic.

The German research aircraft POLAR-5 will travel from Longyearbyen, to Station Nord, to Alert, to Eureka, to Resolute Bay, and finally to Toronto.

The research flights within Nunavut will be conducted over the sea-ice out of the Alert and Eureka airports, and on the transits from Station Nord to Alert, Alert to Eureka, and Eureka to Resolute Bay. The flight routes and stations for activities within Nunavut are shown on the attached map.

Past modes of climate variability from varved sediments

License Number: 02 002 12R-M-Amended

Principal Investigator

Francus, Pierre

Affiliation:

Institut National de la Recherche Scientifique
Quebec City, Quebec G1K 9A9
Canada
pierre.francus@ete.inrs.ca

Number in Party: 6
Research Area: North Baffin
Communities: Ellesmere Island

Summary:
This project seeks to reconstruct the Canadian High Arctic climate of the past by analysis annual laminations (or varves) from lake sediments. The goal of this field season is to retrieve 15 m long sediment cores from 2 sites at South Sawtooth Lake that contains a record of the last 8000 years

Peregrine Diamonds Ltd. Chidliak Property 2012 Baseline Environmental Studies

License Number: 01 008 12R-M

Principal Investigator

Moore, Steve

Affiliation:

EBA Engineering Consultants Ltd.
Yellowknife, NT X1A 2P7
CA
smoore@eba.ca

Number in Party: 3
Research Area: South Baffin
Communities: 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.

Permafrost Atmospheric Science in Cambridge Bay, Canada

License Number: 04 059 12N-M
Principal Investigator
Kim, Ok-Sun
Affiliation:
Korea Polar Research Institute
Division of Life Sciences
Incheon, Yeongsu-gu 406-840
Republic of Korea
oksim@kopri.re.kr

Number in Party: 9
Research Area: Kitimeot
Communities: Cambridge Bay

Summary:
Monitoring of carbon dioxide and black carbon for atmospheric sciences

- Distribution pattern of active layer within 1 m depth
- Temperature and precipitation manipulation experiments
- Characterization of ecological components and their response to climate changes

Method of transportation: Airline

- Any structures that will be erected (permanent / temporary):
- Eddy covariance system for wind and carbon dioxide
- Eathalometer for black carbon
- Open top chamber for manipulation experiments

Restoration / abandonment plans:

- The equipments will be removed after the project is finished.

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

License Number: 02 014 12R-M
Principal Investigator
Pollard, Wayne
Affiliation:
McGill University
Department of Geography
Montreal, Quebec H3A 2K6
Canada
wayne.pollard@mcgill.ca

Number in Party: 7
Research Area: North Baffin
Communities: Axel Heiberg Island

Summary:
My research on the cold perennial springs on Axel Heiberg Island in the Canadian high Arctic has lead 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.

Polar North

License Number: 04 050 12R-M
Principal Investigator
Rondeau, Rob
Affiliation:
PROCOM Marine Survey & Archaeology
Coronation, AB T0C 1C0
CA
procomsurvey@hotmail.com

Number in Party: 5
Research Area: Kitikmeot
Communities: Larsen Sound

Summary:
Project Polar Reach aims to develop solutions relating to offshore surveying through the use of autonomous underwater vehicles (AUVs).

Essentially robots, AUVs can provide greater "precision of position" in surveying under ice and also reduce the risk to personnel doing such work in the remote Arctic environment. The conventional way of bathymetric mapping in the Arctic is to equip an icebreaker with a multibeam echo sounder. In heavy ice, mapping with large icebreakers is time consuming and potentially dangerous. And, it's challenging to run straight lines.

Operating independent of its surface support vessel, an AUV can map at greater speed, accurately following planned survey lines. AUVs are also capable of simultaneous recording using a full geophysical sensor suite – including bathymetry, sub bottom profiling (shallow seismic), acoustic and optical imaging and other oceanographic data recording, such as mapping the ice floor from underneath.

PolarDARN, Polar Dual Aurora Radar Network

License Number: 02 048 12N-M
Principal Investigator
McWilliams, Kathryn
Affiliation:
University of Saskatchewan
Department of Physics & Eng.Physics
Saskatoon, Saskatchewan S7N 5E2
Canada
kathryn.mcwilliams@usask.ca

Number in Party: 5
Research Area: North Baffin
Communities: Clyde River

Summary:
The new radar at Clyde River will be Canada's latest contribution to the very successful international SuperDARN (Super Dual Auroral Radar Network) program. Canada was one of the founding members of SuperDARN, and the first "new" generation radar began operations in Saskatoon in 1993 when the original partners from France, the USA and Canada held their first meeting in Saskatoon.

The consortium has grown continuously so that ten of the world's top industrialized countries are partners, and there are 27 radars currently in operation around the world, eighteen in the northern hemisphere and nine in the southern hemisphere. There are also nine more radars being built, so there will soon be 36 SuperDARN radars in operation world-wide. Canada, a leader in the international SuperDARN program, will operate five radars after the installation of the radar at Clyde River, which will be operating before the end of 2012. The new radar at Clyde River will be Canada's latest contribution to the international SuperDARN scientific consortium. The three most northerly SuperDARN radars operated by Canada (Rankin Inlet, Inuvik and Clyde River) are known by the special name "PolarDARN, " because they monitor the special region of the ionosphere close to the magnetic pole known as the "polar cap."

Provenance of clastic sediments in the Sverdrup Basin, Canadian Arctic IslandsProvenance of clastic sediments in the Sverdrup Basin, Canadian Arctic Islands

License Number: 02 005 12R-M
Principal Investigator
Smyth, Helen
Affiliation:
University of Cambridge
Cambridge, CB30DH
UK
helen.smyth@casp.ac.uk

Number in Party: 6
Research Area: North Baffin
Communities: Axel Heiberg Island, Ellesmere Island

Summary:
The 2012 to 2014 field programme aims to build on previous CASP research and existing published information (Geological Survey of Canada and other workers). The main aim of this research is to characterise the nature and origin of sediment within the Sverdrup Basin by targeting several sites over a three year period (2012, 2013 and 2014).

The islands within Nunavut which we would like to visit (Axel Heiberg and Ellesmere islands) are located around the margins of the Sverdrup Basin, where we can study the greatest range of sedimentary rocks.

The aim is to make detailed field observations and measurements, and in addition to undertake sampling for sediment provenance analysis (sandstones), with a complementary palaeontological sampling programme (permit pending) to allow correlation across the basin.

Other objectives are to compare the stratigraphic succession on the northern and southern margins of the Sverdrup Basin, to test existing sequence stratigraphic interpretation and facies models, and to collect a sample set with which to quantify the uplift and burial history of the Mesozoic and Cenozoic successions.

Reconnaissance Geology of Parts of the Kivalliq and Kitikmeot Regions (GeoMapping for Energy and Minerals Program)

License Number: 04 057 12N-A
Principal Investigator
Percival, John
Affiliation:
Natural Resources Canada
Geological Survey of Canada
Ottawa, Ontario
Canada
john.percival@nrcan-rncan.gc.ca

Number in Party: 7
Research Area: Kivalliq and Kitikmeot
Communities: Baker Lake and Surrounding Area

Summary:
As part of Canada's northern strategy, the Geological Survey of Canada is upgrading geoscience knowledge of the North to modern standards through the Geo-mapping for Energy and Minerals Program. The purpose of the present project is to revisit areas last mapped in the 1950s and 1960s, to evaluate the state of knowledge and collect rock samples for analysis.

Roche Bay & Tuktu – Fresh Water Monitoring

License Number: 02 037 12R-M
Principal Investigator
Moore, Steve
Affiliation:
EBA Engineering Consultants
Yellowknife, NWT X1A 2P7
Canada
smoore@eba.ca

Number in Party: 6
Research Area: North Baffin
Communities: Roche Bay (Hall Beach)

Summary:
Sampling will be conducted according to standardized water quality guidelines, which includes a QA/QC program.

Water samples will be collected at Roche Bay in June, July and August. The locations of water sampling stations will predetermined and a Global Positioning System (GPS) will be used to locate all stations. Water

quality samples will be collected for standard analytical parameters including ultra-low dissolved metals, ultra-low total metals, major ions, low-level nutrients and inorganics.

ALS Environmental (ALS) of Edmonton will prepare the water sampling bottles for all water sampling events. All samples will be transported in portable coolers with ice packs. In the field, powder-less latex gloves will be worn during handling of bottles and equipment to minimize contamination. All bottles will be rinsed three times with the source water (i.e. the same water the bottle will be filled with) prior to water collection. To minimize trace metals contamination from the filters, filters were rinsed three times with source water prior to filtering the sample water.

As part of a Quality Assurance/Quality Control (QA/QC) program, travel blanks will be used; field blanks and duplicates will be collected and filter blanks submitted. Duplicates will be collected to test the validity of sampling procedures and laboratory methodology.

Scientific Investigations supporting the Resolution Island cleanup project

License Number: 01 015 12R-M
Principal Investigator

Rutter, Allison
Affiliation:
Queen's University
Analytical Services Unit, School of Environmental Studies
Kingston, ON K7L 3N6 CA
ruttera@biology.queensu.ca

Number in Party: 9
Research Area: South Baffin
Communities: Cape Warwick, Resolution Island

Summary:
The Analytical Services Unit, Queen's University will have a team on site at Resolution Island again this year. Our work is currently focused on monitoring now that the major cleanup undertaken by the Qikiqtaaluk Corporation for Indian and Northern Affairs Canada is complete.

The majority of the work will involve sampling and analysis of plants, soils and water from monitoring wells. The three permanent barriers will be monitored, repaired, tested and if necessary modified. Further monitoring will be conducted with respect to hydrocarbon contamination remediation. The experimental in situ landfarm established in 2005 and the large landfarm established in 2004 will be monitored and maintained.

Tehery Lake, Nunavut Aeromagnetic Survey

License Number: 03 003 12N-M
Principal Investigator

Miles, Warner
Affiliation:
Natural Resources Canada
Ottawa, Canada K1A 0E9
Canada
wmiles@nrcan.gc.ca

Number in Party: 2
Research Area: Kivalliq
Communities: Tehery Lake

Summary:
The purpose of this airborne is to acquire high resolution aeromagnetic data to provide publically available geoscience information to inform land use decisions by landowners, governments and industry.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

The fate and toxicity of Arctic soil pollutants: how humans poison Arctic soils and how Arctic soils poison humans.

License Number: 02 029 12N-M

Principal Investigator
Siciliano, Steven
Affiliation:
University of Saskatchewan
Department of Soil Sciences
Saksatoon, Saskatchewan S7N 5A8
Canada
steven.siciliano@usask.ca

Number in Party: 4
Research Area: North Baffin
Communities: Alexandra Fiord

Summary:
To determine how humans poison Arctic soils, we must first establish soil components critical for polar desert sustainability. Polar deserts cover a vast area of the islands in the Canadian Arctic but very little is known about the soil ecosystems of these deserts. I hypothesize that within the sorted circles present in Polar Deserts, there is a deep, productive soil horizon, called a Bhy. I hypothesize that these Bhy soils are a critical component of the Arctic deserts and are essential to the long term survival on these ecosystems.

The PolarDARN radar for Rankin Inlet (Kangiqsliniq)

License Number: 03 014 12R-M

Principal Investigator
Sofko, George
Affiliation:
University of Saskatchewan
Department of Physics and Eng. Physics
Saskatoon, SK S7N 5E2
Canada
George.Sofko@usask.ca

Number in Party: 3
Research Area: Kivalliq
Communities: Rankin Inlet

Summary:
A large group of international scientists have joined to use radars to study high-altitude weather systems and their effects upon the low-altitude weather we experience at the ground. The SuperDARN (Super Dual Auroral Radar Network) community, with funding and/or participation from 12 countries (Canada, US Great Britain, France, Italy, Finland, Norway, Iceland, Japan, Australia, New Zealand and South Africa), has constructed 9 radars in the northern hemisphere and 7 in the southern hemisphere (including four in Antarctica) All of the 16 SuperDARN radars are located so as to examine the "auroral zone" (the zone of northern or southern lights) at high latitudes in the northern and southern regions of the earth.

There is, however, a gap in the coverage over the polar regions. The north magnetic pole lies near Eureka, Nunavut. Only two radars, to be called the PolarDARN radars, are needed to view the entire "north polar cap" region centered around the magnetic pole. The first radar would be installed in Rankin Inlet, the second in Inuvik. We already take part in science projects at two sites in Rankin Inlet-at a small hut in which a camera and a radio inosonde operate.

The PolarDARN radars will be portable- easy to install and remove, with no environmental damage. The radars measure the high altitude "weather maps" (which are voltage maps, because high-altitude winds are motions of electrically charged particles driven by electrical voltages). These maps are available on the internet with only a few minutes delay. Such information is important for all satellites, because satellites fly in this high altitude weather. These satellites are extremely important to the north because they transmit most communications signals (telephone, TV, internet etc.). Recently, scientists have found that the high-altitude weather is connected to the low-altitude weather, and the PolarDARN radar observations will help us to understand these connections.

PolarDARN can measure part of the energy from the Sun to the Earth, namely the energy that comes from the "solar wind". This energy goes most directly to the polar regions, so these are very important regions to study. We are very fortunate that Nunavut and the NWT provide much easier access to the northern polar regions than Antarctica to the south polar regions.

The ultra-warm Arctic 90 million years ago

License Number: 02 032 12N-A

Principal Investigator

Tarduno, John

Affiliation:

University of Rochester
Dept.of Earth & Environmental Sciences
Rochester, NY 14618
USA
john@earth.rochester.edu

Number in Party: 6

Research Area: North Baffin

Communities: Expedition Fiord, Bunde Fiord, Hansen Point

Summary:

The 90 million-year-old Arctic region contains a geologic history that records extreme climatic warmth that might provide insight into modern conditions and the potential for future climate change. We are studying fossils (including turtles) from Axel Heiberg Island that attest to the high paleo-temperatures, and volcanic rocks from Axel Heiberg and Ellesmere Islands whose eruption may have contributed carbon dioxide to the ancient atmosphere. We wish to better determine ancient Arctic temperatures and to learn if volcanic activity caused the warm conditions 90 million years ago.

My work involves a small group (4-5, students and research assistants) sampling sedimentary and volcanic rocks. We work from small camps with minimal impact on the environment. Our logistic support comes from the Canadian Polar Continental Shelf Project.

Uplift and provenance studies along Ellesmere Island, Baffin Island and the coast of Labrador.

License Number: 02 046 12N-A

Principal Investigator

Knudsen, Christian

Affiliation:

Geological Survey of Denmark & Greenland
Copenhagen, 1350
Denmark
ckn@geus.dk

Number in Party: 4

Research Area: North & South Baffin:

Summary:

Concerning the uplift study, the goal is to collect rock samples for Apatite Fission Track Analysis (AFTA). The aim of the study is to un-derstand the timing of the formation of the mountains along Baffin Bay, Davies Strait and Labrador Sea.

Concerning provenance sampling, the goal is to collect river sand sam-ples that characterise the landmasses surrounding Baffin Bay, Davies Strait and Labrador Sea and hereby establish a database or “library” of mineral compositions and mineral ages.

The purpose of this is to be able to tell from where sand mineral grains deposited offshore came from because rivers pick up a representative collection of the rocks pre-sent at the surface in the catchment area.

Variability and Forcing of Fluxes through Nares Strait & Jones Sound

License Number: 02 033 12R-M
Principal Investigator
Melling, Humfrey
Affiliation:
Institute of Ocean Sciences
Fisheries and Oceans Canada
Sidney, BC V8L 4B2
CA
humfrey.melling@dfo-mpo.gc.ca

Number in Party: 13
Research Area: North Baffin
Communities: Nares Strait, Jones Sound

Summary:
Our project was initiated in 2003 and continued through the IPY and beyond. Its purpose is to measure the strength and properties of ocean currents flowing through the Canadian Arctic to Baffin Bay.

The amount of fresh water mixed with the seawater is of special interest. The Arctic currents are important sources of nutrients for marine life in Nunavut and important pathways for fresh-water movement in the climate system. About half the outflow from the Arctic Ocean passes through Nunavut.

The water that comes south was originally delivered to the Arctic by currents from the Pacific Ocean and by snow, rain and rivers. Our project's short name is CATs, for Canadian Arctic Through-flow study.

Wager Bay Surficial Mapping Activity (formally Churchill Diamond Corridor Activity)

License Number: 03 071 12R-M
Principal Investigator
Campbell, Janet
Affiliation:
Geological Survey of Canada
NRCan
Ottawa, Ontario K1A 0E8
Canada
janet.campbell@nrcan.gc.ca

Number in Party: 2
Research Area: Kivalliq
Communities: Wager Bay, Repulse bay

Summary:
The principal objectives of this project are to provide geoscience information on the surficial materials and the deep bedrock in the Repulse Bay - Wager Bay area (attached figure), in the form of geological maps and reports in support of economically effective and environmentally sound use of the terrain and materials.

These activities are part of a five year (2010-2014) multi-disciplinary and collaborative effort between geoscientists of Nunavut, Parks Canada and the Geological Survey of Canada to improve the regional geoscience knowledge base for the Wager Bay area.

The main outcomes of this project are to promote sustainable development of natural resources and increase economic self-sufficiency and work opportunities for northerners.

2012 SOCIAL SCIENCES RESEARCH IN NUNAVUT

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

License Number: 03 069 12R-M
Principal Investigator
Strutynski, John
Affiliation:
Memorial University
Faculty of Education
Baker Lake, Nunavut X0C 0A0
Canada
j_strutynski@kivalliq.edu.nu.ca

Number in Party: 2
Research Area: Kivalliq
Communities: 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.

A Research Study: Toward a Psychological and Sociocultural Profile of Students and Graduates of the Social Services Worker Program at Nunavut Arctic College

License Number: Registry 04 053 12
Principal Investigator
Wensing, EJ
Affiliation:
Saybrook University
St.Thomas, 00802
US Virgin Islands
ejwensing@ecosphere.net

Number in Party: 4
Research Area: Kitikmeot
Communities: Cambridge Bay

Summary:
This social science research proposal describes a study that seeks to characterize the psychological and sociocultural profile of students entering into and graduating from the Social Services Worker Program at Nunavut Arctic College.

Utilizing a qualitative research approach, this study seeks to characterize and understand the attitudes, behaviors, values, and perceptions about the work both upon entry and upon graduation.

It also seeks to uncover the awareness of Inuit Qaujimajatuqangit (IQ) values prior to beginning study and the extent this plays in decision-making regarding the choice of studies. Data will be collected utilizing semi-structured interviews as well as focus group discussions.

This will require about two to three trips to the Kitikmeot Campus to interview and have discussions with students and faculty. The first trip would take place in March 2012.

A study of the contemporary music scene in Arviat, Nunavut

License Number: 03 011 12N-A
Principal Investigator
van den Scott, Jeffrey
Affiliation:
Northwestern University
Evanston, Illinois 60201
USA
jvandenscott@u.northwestern.edu

Number in Party: 2
Research Area: Kivalliq
Communities: Arviat

Summary:
While Nunavut, and Arviat in particular, have been the location of several studies surrounding traditional music, I am particularly interested in the North-South relationship of musical activities. My principal interest lies in two areas.

First, what does the contemporary music scene look like in Arviat, including both traditional and popular musics? Second, does the increased visibility of Inuit music in the South (ie. use by classical ensembles and popular musicians) have any influence on musical practice in Arviat?

Several Arviat musicians now travel regularly to perform traditional music in Southern settings, some under the direction of a professional agent. Do these musicians gain legitimacy at home through these activities?

A Study of Walls

License Number: 03 002 12R-M
Principal Investigator
van den Scott, Lisa-Jo
Affiliation:
Northwestern University
Evanston, Illinois 60201
USA
lvandenscott@u.northwestern.edu

Number in Party: 2
Research Area: Kivalliq
Communities: Arviat

Summary:
This research follows up on a study from the summer of 2010 where I found that in their relationship with permanent walls, Arviamiut express Inuit values on ingenuity and interconnectedness in the ways in which they use their walls. While the walls have imposed certain cultural changes, the Inuit also show that they can import their culture “inside” the home and use the walls to affirm that culture and their identity as Inuit. This research will be used for my PhD dissertation, with a potential of it being developed into a publication at some point.

Aboriginal Youth Involvement in Youth-driven Initiatives: A Narrative Exploration of the Process and Impact of Engagement.

License Number: 03 017 12N-M
Principal Investigator

Callingham, Christina
Affiliation:
University of Ottawa
Ottawa, Ontario K1H 5Z1
Canada
ccall027@uottawa.ca

Number in Party: 2
Research Area: South Baffin, Kivalliq
Communities: Baker Lake, Iqaluit, Rankin Inlet

Summary:
Aboriginal youth across the country have expressed a need to be valued as contributors to community health and healing, and have taken initiative to this effect through participation in programs that promote youth engagement. The aim of this qualitative study is to explore how Aboriginal youth both act and perceive themselves as agents of change in relation to having participated in programs that promote youth engagement and aim to contribute to a greater social change movement. The proposed study aims to explore the following research question: "What narratives emerge, and are co-constructed, when exploring the experience of Aboriginal youth who engage in youth development programs aimed at fostering youth engagement?"

Adaptation, Industrial Development and Arctic Communities

License Number: 05 008 12R-M
Principal Investigator

Keeling, Arn
Affiliation:
Memorial University
Department of Geography
St Johns, NL
Canada
akeeling@mun.ca

Number in Party: 8
Research Area: Kitikmeot, Kivalliq, North Baffin
Communities: Baker Lake, Arviat, Rankin Inlet, Kugluktuk, Arctic Bay, Resolute Bay

Summary:
The key objective of this project is to engage in community-based, historical and comparative research into Arctic industrial development. By undertaking fieldwork in mining-affected communities and archival research into the legal and policy frameworks surrounding mineral development, our research team aims to inform debates and policy-making efforts surrounding the rapid industrialization of Arctic regions.

The focus of this work is on three Nunavut communities currently encountering mineral exploration and development activity in their vicinities, and/or with a history of mining in the area: Kugluktuk (Coppermine) in the Kitikmeot region, Qamani' tuaq (Baker Lake) and Kangiqiniq (Rankin Inlet) in the Kivalliq region.

In addition, we have extended our research to a fourth community, Arctic Bay (Ikpiarjuk Tununirusiq), where we will examine the legacies of the former Strathcona Sound (Nanisivik) lead-zinc mine.

An Ethnological Study of the socio-political and economic funtion of IQ(Inuit Qaujimajatuqangit) in the Contemporary Inuit Community.

License Number: 04 060 12R-M
Principal Investigator
Omura, Keiichi
Affiliation:
Osaka University
Toyonaka City, Osaka 191-0065
Japan
BXQ06636@nifty.com

Number in Party: 5
Research Area: Kitikmeot
Communities: Kugaaruk

Summary:
Since the establishment of Nunavut, IQ (Inuit Qaujimajatuqangit: Inuit Knowledge or Inuit way of doing things) has attracted worldwide public and academic attention. How should IQ be applied to the management of Nunavut government to establish the governance system compatible with the Inuit societal value? How should the governance system of Nunavut, sill based on the modern Qaplunaat (Euro-Canadian) way of governance, be modified according to the IQ principles?

These issues are important to the contemporary people of the world as well as Nunavut Territory and Canada, because their challenge to modify the Qaplunaat way of governance according to the IQ principles should contribute to the establishment of an alternative governance system more sensitive to and empowering the indigenous peoples.

The purpose of this research project is to investigate how IQ functions in contemporary Inuit communities to modify and adapt the governance system of Nunavut to the Inuit way of life. Based on this investigation, we consider the role of IQ in maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

We will carry out the research in Kugaaruk where we have conducted ethnological research since 1988. Our research is composed of the following 4 parts.

1) Research on language (Inuktun) and traditional knowledge: Omura will continue study on Inuktun and traditional ecological knowledge of animal, plan, geographical features, climate etc. by formal interviews.

2) Research on story telling: Omura will collect life history, legend and myth by formal interviews to consider the role of story telling in transmission of IQ.

3) Research on subsistence activities: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on subsistence activities and food sharing practices to understand how IQ functions as a bridge of traditional way and modern mechanized way of subsistence.

4)research on societal values: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on social relations to understand how IQ functions as an integral part of maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

An Ethnological Study of the socio-political and economic funtion of IQ(Inuit Qaujimajatuqangit) in the Contemporary Inuit Community.

License Number: 0401709N-M
Principal Investigator
Omura, Keiichi
Affiliation:
Osaka University
Toyonaka City, Osaka 191-0065
Japan
BXQ06636@nifty.com

Number in Party: 5
Research Area: Kitikmeot
Communities: Kugaaruk

Summary:
Since the establishment of Nunavut, IQ (Inuit Qaujimajatuqangit: Inuit Knowledge or Inuit way of doing things) has attracted worldwide public and academic attention. How should IQ be applied to the management of Nunavut government to establish the governance system compatible with the Inuit societal value?

How should the governance system of Nunavut, sill based on the modern Qaplunaat (Euro-Canadian) way of governance, be modified according to the IQ principles? These issues are important to the

contemporary people of the world as well as Nunavut Territory and Canada, because their challenge to modify the Qaplunaat way of governance according to the IQ principles should contribute to the establishment of an alternative governance system more sensitive to and empowering the indigenous peoples.

The purpose of this research project is to investigate how IQ functions in contemporary Inuit communities to modify and adapt the governance system of Nunavut to the Inuit way of life. Based on this investigation, we consider the role of IQ in maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

We will carry out the research in Kugaaruk where we have conducted ethnological research since 1988. Our research is composed of the following 4 parts.

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2) Research on story telling: Omura will collect life history, legend and myth by formal interviews to consider the role of story telling in transmission of IQ.

3) Research on subsistence activities: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on subsistence activities and food sharing practices to understand how IQ functions as a bridge of traditional way and modern mechanized way of subsistence.

4)research on societal values: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on social relations to understand how IQ functions as an integral part of maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

An Ethnological Study of the socio-political and economic funtion of IQ(Inuit Qaujimajatuqangit) in the Contemporary Inuit Community.

License Number: 04 030 10R-M

Principal Investigator

Omura, Keiichi

Affiliation:

Osaka University
Toyonaka City, Osaka 191-0065
Japan
BXQ06636@nifty.com

Number in Party: 5
Research Area: Kitikmeot
Communities: Kugaaruk

Summary:

Since the establishment of Nunavut, IQ (Inuit Qaujimajatuqangit: Inuit Knowledge or Inuit way of doing things) has attracted worldwide public and academic attention. How should IQ be applied to the management of Nunavut government to establish the governance system compatible with the Inuit societal value?

How should the governance system of Nunavut, sill based on the modern Qaplunaat (Euro-Canadian) way of governance, be modified according to the IQ principles?

These issues are important to the contemporary people of the world as well as Nunavut Territory and Canada, because their challenge to modify the Qaplunaat way of governance according to the IQ principles should contribute to the establishment of an alternative governance system more sensitive to and empowering the indigenous peoples.

The purpose of this research project is to investigate how IQ functions in contemporary Inuit communities to modify and adapt the governance system of Nunavut to the Inuit way of life. Based on this investigation, we consider the role of IQ in maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

We will carry out the research in Kugaaruk where we have conducted ethnological research since 1988. Our research is composed of the following 4 parts.

1) Research on language (Inuktun) and traditional knowledge: Omura will continue study on Inuktun and traditional ecological knowledge of animal, plan, geographical features, climate etc. by formal interviews.

2) Research on story telling: Omura will collect life history, legend and myth by formal interviews to consider the role of story telling in transmission of IQ.

3) Research on subsistence activities: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on subsistence activities and food sharing practices to understand how IQ functions as a bridge of traditional way and modern mechanized way of subsistence.

4)research on societal values: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on social relations to understand how IQ functions as an integral part of maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

At the Intersection of Apology and Sovereignty: The Arctic Exile Monument Project as Land Claim

License Number: 02 035 12N-A
Principal Investigator
Wakeham, Pauline
Affiliation:
University of Western Ontario
London, Ontario N6B 3E9
Canada
pwakeham@uwo.ca

Number in Party: 1
Research Area: North Baffin
Communities: Grise Fiord, Resolute Bay, Iqaluit

Summary:
This project is inspired by the Arctic Exile Monument Project sponsored by Nunavut Tunngavik Incorporated. I would like to write a journal article (that will hopefully also become a future book chapter) about how this monument project worked to draw public attention to the High Arctic Relocations of 1953 and 1955 and to advocate for the federal government's apology in August 2010. I am particularly interested in analyzing how art—in this case, Inuit sculpture—played a pivotal role in obtaining this apology.

As Nunavut Tunngavik President James Eetoolook has said in the media, the sculptures "played a major role in ensuring the apology was done." My research examines the connections between the history of the federal sponsorship of the Inuit art industry (particularly in the 1940s and 1950s) and the government's economic and sovereignty-based motivations for the High Arctic Relocations.

Understood in this historical context, the Arctic Exile Monument Project constitutes a powerful reclaiming of Inuit sculpture for Inuit community purposes: namely, the reassertion of Inuit rightful belonging of the land in an era where global warming has prompted the Canadian government's renewed anxieties about its sovereignty in the Arctic.

Back River Project: Socio-Economic and Land Use Studies

License Number: 04 051 12N-M
Principal Investigator
Gustavson, Kent
Affiliation:
Rescan Environmental Services LTD.
Vancouver, BC V5E 2J3
Canada
kgustavson@rescan.com

Number in Party: 5
Research Area: Kitikmeot
Communities: Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaruuk, Bathurst Inlet, Omingmatok

Summary:
Sabina Gold & Silver Corp. is exploring significant gold deposits near Back River, Nunavut. The area holds a number of potential ore deposits that are being investigated.

The baseline studies could form the basis of Socio-Economic Impact Assessment and Analysis per Part 5 of Article 12 of the NLCA. The Socio-Economic study will focus on the communities of the Kitikmeot Region, including social, economic, education, cultural, and governance characteristics.

The Land and Resource Use study is more site-specific, and will investigate land (and water) uses in the areas surrounding the Back River deposits.

Climate Change Health Adaptation Strategies for Inuit Food Security-Arviat Nunavut and Beyond

License Number: 03 013 12R-Registry
Principal Investigator
Tagalik, Shirley
Affiliation:
Arviat Health Committee/Hamlet of Arviat
Arviat, Nunavut X0C 0E0
Canada
tagaliktwo@hotmail.com

Number in Party: 9
Research Area: Kivalliq
Communities: Arviat

Summary:
Arviat has completed research in the area of food security over the past two years.Much of the work is informing Arviats response and participation in th epoverty reduction strategy:The Makimaniq Plan.Stemming from this research came some pervasive questions about Inuit Qaujimajatugangit beliefs and laws around sharing and food redistribution.

Community Experience of Mining in Baker Lake, NU

License Number: 03 012 12R-M
Principal Investigator
Peterson, Kelsey
Affiliation:
University of Guelph
Department of Geography
Guelph, Ontario N1E 2L4
Canada
kpeter01@uoguelph.ca

Number in Party: 2
Research Area: Kivaliq
Communities: Baker Lake

Summary:
With increasing mineral prices making the Arctic a viable place to mine, exploration and mining companies are pushing into the Canadian Arctic with unprecedented investment. Small, remote communities in Nunavut are beginning to feel the pressure of this new mining boom with the opening of Agnico-Eagle's Meadowbank gold mine outside of Baker Lake, and continued progress in many exploration programs. This research seeks to gain insight into the individual and community experiences that Baker Lake, NU has had with mining development with Meadowbank, Nunavut's first gold mine.

Knowing how mining has impacted different community groups differently will be useful for Baker Lake community members trying to inform decisions regarding community programs, mining company negotiations and informed consent to new mining.

Working as a partner in this research will determine that the research answers questions that the people of Baker Lake want answered.

Connecting Inuit Elders and Youth: Learning about caribou, community, and well-being

License Number: 04 058 12N-M
Principal Investigator
Ljubicic, Gita
Affiliation:
Carleton University
Dept.of Geography & Env.Studies
Ottawa, Ontario K1S 5B6
Canada
gita_ljubicic@carleton.ca

Number in Party: 6
Research Area: Kitikmeot
Communities: Gjoa Haven, Cambridge Bay

Summary:
This project was developed from a research planning workshop in Gjoa Haven in February, 2010, with additional planning meetings and participation in the Qiqirtaq High School elder-youth land camp in August, 2010. From these meetings, six local research priorities were identified by community representatives, including: i) caribou health; ii) elder and youth camps; iii) caribou food (vegetation); iv) changing lifestyles; v) cultural values and skills; and, vi) Inuit health and diet (see http://www.straightupnorth.ca/Sikuliriji/GH-SummReports.html for details).

Acting on these priorities, the purpose of this project is to explore the value of elder-youth land camps as a means of fostering inter-generational knowledge transfer and conceptualizing Inuit research methodologies.

Our objectives are to investigate cross-cultural applications of Indigenous research methodologies, explore the role of place in northern education, Inuit identity, and human-animal relations, as well as understand how community-driven research and education can foster community health and prosperity.

This case study will thus address community goals while informing broader debates around Indigenous and cultural geography theoretical approaches, Aboriginal identities, sustainable livelihoods, place-based education, wildlife management, and cultural knowledge transmission.

Cultivating the Arctic's Most Valuable Resource: An Analysis of the Barriers to High School Completion Among Aboriginal Youth in Northern Communities

License Number: 01 003 12N-A
Principal Investigator

Ogorman, Melanie
Affiliation:
University of Winnipeg
Winnipeg, Manitoba R3B 2E9
Canada
m.ogorman@uwinnipeg.ca

Number in Party: 2
Research Area: South Baffin
Communities: Iqaluit

Summary:
The objective of this project is to uncover the key determinants of high dropout rates from high school among Aboriginal youth in Northern communities. Nunavut had the highest average dropout rate of all Canadian provinces and territories, at 50.0% of the population aged 20-24 between 2007 and 2010. By gathering information from focus groups and a survey of high school-aged youth in Iqaluit, our project will be able to answer a crucial question concerning Iqaluit's education system: what initiatives and resources are needed to ensure a higher rate of high school completion among youth?

We anticipate that the results of our study will provide insight into effective policies for reducing early exits from high school. Increased educational attainment should foster social and economic prosperity as additional schooling at the high school level has been shown to bring about increases in earnings, improvements in health status, job stability as well as other important societal benefits such as reduced crime and cultural revitalization.

Expert on drums, could be experter: Video games as a technology of learning for Inuit youth

License Number: 03 001 12N-A
Principal Investigator

Chippett, Jeremy
Affiliation:
Tusarvik School
Repulse Bay, Nunavit X0C 0H0
Canada
jchippett@mac.com

Number in Party: 3
Research Area: Kivalliq
Communities: Repulse Bay

Summary:
This research aims to investigate a successful learning activity among Inuit youth, video gaming, in order to determine how, what and why they learn from video gaming. This would represent a "strength-based" approach to learning putting the focus on the aptitudes the Inuit may possess as opposed to those EuroCanadian standards and testing skills determined to be missing.

The goal of this research can best be summarized in the following statement: To determine the features of Inuit culture that influence learning, to decode where Inuit learning occurs in digital video games, and to learn how to develop educational affinity that avoids negative influences, while capitalizing on positive features.

Hackett River Project: Socio-Economic and Land Use Baseline Studies

License Number: 04 056012R-M
Principal Investigator
Gustavson, Kent
Affiliation:
Rescan Environmental Services
Vancouver, British Columbia V6E 2J3
Canada
kgustavson@rescan.com

Number in Party: 6
Research Area: Kitikmeot
Communities: Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk, Bathurst Inlet, Omingmaktok

Summary:
The primary goal of the research is to gather and update data on the socio-economic, cultural, education, governance and land use characteristics at community, regional and territorial levels. This will include current socio-economic profiles and characteristics of the study communities, and the identification and description of land uses/users.

Research methods include a desk-based review of existing literature and statistics including quantitative and qualitative information. Issues scoping will draw from this initial research, as well as the findings and outcomes of past and ongoing developments in the area. The field study program will build upon this research through meetings, interviews, focus groups and workshops in the communities.

Holistic Mission of the Anglican Church in the arctic region of Canada, with special reference of the indigenous Inuit community and state perspectives on major social problems.

License Number: 01 014 12N-A
Principal Investigator
Saunders, Daniel
Affiliation:
Belfast Bible College
Belfast, Dunmurry BT17 RDY
Northern Ireland
dsaunders@qub.ac.uk

Number in Party: 3
Research Area: South Baffin
Communities: Iqaluit

Summary:
My focus will be how the Church has influenced Inuit culture and conceptualises major social issues.

Drawing upon my studies in Sociology I have a particular interest in contemporary western forms of structure and institutions, and how they have pervaded into Inuit culture.

I will be considering the "social costs" of rapidly moving a hunter/gatherer community into a complex contemporary western society?

Hope Bay Belt:Socio-Economic and Land use Studies

License Number: 05 072 12R-M
Principal Investigator
Gustavson, Kent
Affiliation:
Rescan Environmental Services Ltd.
Social and Economic Studies Department
Vancouver, BC V6E 2J3
Canada
kgustavson@rescan.com

Number in Party: 5
Research Area: Kitikmeot, Qikiqtaaluk
Communities: Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaruuk, Bathurst Inlet, Omingmaktok, Iqaluit

Summary:
The primary goal of thie research is to gather and update on the socio-economic, cultural, education, governance and land use characteristics at community, regional and territorial levels.

This will include socio-economic profiles and characteristics of the study communities and the identification and description of land uses/users.

Research methods include a desk based review of existing literature and statistics, including quantative and qualitive information.Issues scoping will draw from this initial research, as well as the findings and outcomes of past and ongoing developments in the area.

The field study program will biuld upon this research through meetings, interviews, focus groups and workshops in the communities.

Hunting and Mining in Baker Lake

License Number: 03 010 12N-M
Principal Investigator
Bernauer, Warren
Affiliation:
York University
Department of Geography
Toronto, Ontario M6A 3K5
Canada
bernauer@yorku.ca

Number in Party: 2
Research Area: Kivalliq
Communities: Baker Lake

Summary:
This study will involve interviews with hunters and Elders in Baker Lake.

The primary aim of the research is to help me better understand the perspectives of Inuit in Baker Lake on mining development. I will be asking questions about land use in the area, the history of the area and the animals that inhabit the area. I will also ask questions about hunters and Elders' perspectives on the way mining companies consult communities and their perspectives on the way decisions about mining are made in Nunavut.

Please see an attached list of sample interview questions and a sample consent form. I hope to further consult the Hunters and Trappers Organization regarding this research when I arrive in Baker Lake. I hope they will be able to suggest people to interview, as well as provide feedback on the content and wording of my interview questions.

Impacts from climate change on berry productivity in the Kitikmeot Region: Integrating traditional knowledge and community participation with science

License Number: 04 063 12N-M
Principal Investigator

Desrosiers, Sarah
Affiliation:
University of British Columbia
Vancouver, British Columbia V6T 1Z2
Canada
desrosie@gmail.com

Number in Party: 4
Research Area: Kitikmeot
Communities: Kugluktuk

Summary:
Part of IPY CiCAT (Climate Change Impacts on Canadian Arctic Tundra), the main goals of this project is to improve our knowledge of the ecology of berry producing species and to establish a long-term community based monitoring project using berry species and shrub growth as indicators of climate change.

We are also interested in integrating local and traditional ecological knowledge with scientific data on variations in annual productivity of commonly used berries: Cranberry (Vaccinium vitis-idaea), Crowberry (Empetrum nigrum), Blueberry (Vaccinium uliginosum) and Cloudberry (Rubus chamaemorus). Thus, this summer we will be facilitating an oral history training workshop for youth where students will be trained to interview elders about berries (language, ecology, uses and geographic information).

Improving Access to University Education in the Canadian Arctic:Learning from Past Experiences and listening to the Inuit Student Experiences

License Number: 01 004 12R-M
Principal Investigator

Rodon, Thierry
Affiliation:
Carleton University
School of Public Policy & Administration
Ottawa, Ontario K1S 5B6
Canada
thierry_rodon@carleton.ca

Number in Party: 7
Research Area: Baffin
Communities: Iqaluit

Summary:
Increased participation in postsecondary education is of primary concern for Inuit organizations. The goal of this research proposal is to provide evidence-based research on Inuit participation in University education throughout Inuit Nunangat and to promote a national discussion amongst provider of university program in Inuit Nunangat, Northern institutions and Inuit organizations in order to develop a more coordinated effort in program delivery, curriculum development

Improving Criminal Justice for People with Mental Illness in Remote Arctic Communities

License Number: 01 029 12N-M
Principal Investigator
Ferrazzi, Priscilla
Affiliation:
Queens University
Faculty of Health Sciences
Kingston, Ontario K7L 4L1
Canada
priscilla.ferrazzi@queensu.ca

Number in Party: 2
Research Area: Qikiqtani, Kivalliq
Communities: Arviat, Iqaluit, Qikiqtarjuaq

Summary:
The purpose of this research is to explore the feasibility of creating specialized mental health criminal court programs that divert offenders with mental illness from the justice system to community treatment in remote Arctic communities affected by scarce resources, geographic isolation, and Inuit cultural considerations.

The study's goal is to identify the principles that guide the specialty "problem-solving" courts that focus on the underlying individual and social causes of crime in many Canadian cities and elsewhere and to determine whether these principles can be used in the absence of the resources usually associated with these courts to deliver "therapeutic jurisprudence" in remote communities in Nunavut.

Integrating Inuit KNowledge and aspirations in the management of Auyuittuq National Park

License Number: 01 028 12N-M
Principal Investigator
Jacobson, Chris
Affiliation:
University of the Sunshine Coast
Sustainability Research Centre
Maroochydore DC, Queensland 4558
Australia
cjacobso@usc.edu.au

Number in Party: 5
Research Area: Qikiqtaaluk
Communities: Pangnirtung, Qikiqtarjuak

Summary:
This research will help Parks Canada and other agencies operating in Nunavut to develop management processes that better reflect Nunavut aspirations for the ways in which Inuit Qaujimajayuqangit can be applied.

Inuit Qaujimajatuqangit and the Transformation of High School Education in Nunavut

License Number: 05 006 12R-M
Principal Investigator
Walton, Fiona
Affiliation:
University of PEI
Faculty of Education
Charlottetown, PEI
Canada
fwalton@upei.ca

Number in Party: 7
Research Area: Qikiqtani, Kitikmeot, Kivalliq
Communities: Clyde River, Pangnirtung, Kugluktuk, Rankin Inlet

Summary:
The following research protocols support the case study research to be conducted at the high school level in the communities of Pangnirtung and Clyde Rive, Nunavut over the next year. Information letters, questions for participants and the consent forms are divided into eight sections below.

Please note that this qualitative research project takes place using collaborative, participatory, community-based methodologies where both Inuktitut and English are used and Inuit researchers interact with the participants

Inuit Qaujimajatuqangit Study in Support of the Izok Project

License Number: 05 005 12R-M
Principal Investigator
Klein, Heidi
Affiliation:
Sanammanga Solutions Inc.
Calgary, AB T3A 5C4
Canada
sanammanga@gmail.com

Number in Party: 7
Research Area: Kitikmeot
Communities: Cambridge Bay, Kugluktuk, Kugaaruk, Taloyoak, Gjoa Haven, Pond Inlet, Resolute Bay, Arctic Bay

Summary:
TMMG Canada Inc (MMG) is planning to start feasibility studies for a proposed project that will include an open pit and underground mine at the High Lake and/or Izok Lake.Ore concentrate (zinc, copper, lead) will be transported to an Arctic Port at Grays Bay by an all season road. The closest communitites in the Kitikmeot include Kugluktuk and Bathurst Inlet.

MMG has retained Sanmmanga Solutions Inc. to undertake and manage the Inuit Qaujimajutuqangit (IQ) study in the Kitikmeot Region in support of an environmental impact statement, which MMG plans to submit to the Nunavut Impact Review Board.

Inuit Qaujimajatuqanigit and Harvest Studies Supporting the Mary River Project

License Number: 02 007 12R-M
Principal Investigator
Cook, Richard
Affiliation:
Knight Piesold Ltd.
North Bay, Ontario P1B 8G5
Canada
rcook@knightpiesold.com

Number in Party: 6
Research Area: North & South Baffin
Communities: Arctic Bay, Cape Dorset, Clyde River, Hall Beach, Igloolik, Pond Inlet

Summary:
Baffinland Iron Mines Corporation (Baffinland) is looking to build a mine at Nuluujaak (Mary River). Inuit Qaujimajatuqangit (IQ) studies were initiated in 2006 to document the existing condition of the land and wildlife in the region and obtain feedback on the potential effects of mine development.

The studies proposed here include supplementing the IQ studies already initiated, as well as collection of current wildlife harvest information from local hunters. The IQ studies will help Baffinland plan a project that considers and respects local knowledge, including how the people use the land and which areas are most important. The information will be very important to support an environmental assessment, including identifying potential negative and positive impacts of the project on the communities and wildlife, and identifying mitigation opportunities.

These studies will be conducted and coordinated by Baffinland, with the assistance of Knight Piesold Ltd., with the participation of local researchers and Hunter and Trapper Organizations.

Inuit Women and Subsistence: Social and Environmental Change

License Number: 02 031 12R-M-Amended
Principal Investigator
Dowsley, Martha
Affiliation:
Lakehead University
Department of Geography
Thunder Bay, ON P7B 5E1
mdowsley@lakeheadu.ca

Number in Party: 5
Research Area: North Baffin
Communities: Qikiqtarjuaq, Clyde River, Pangnirtung

Summary:
The objectives of the project are to investigate women's activities related to harvesting and processing country foods and materials. Also to examine the social networks of sharing for the collection, processing, distribution, and consumption of goods and services (including, but not only, country foods and other products). Also to find out people's views on changes in subsistence over the past 50 years and the main threats to the current system. Finally, to use this information as a baseline for future studies.

Inusiqasiarniq: Healthy Choices for Children & Youth

License Number: 03 013 12R-Registry
Principal Investigator
Tagalik, Shirley
Affiliation:
Hamlet of Arviat
Arviat Health Committee
Arviat, Nunavut X0C 0E0
Canada
tagaliktwo@hotmail.com

Number in Party: 7
Research Area: Kivalliq
Communities: Arviat

Summary:
The Arviat Inusiqasiarniq project is a community-driven initiative funded through the PHAC Innovation Strategy. The aim of the project is to improve health outcomes for our very large child and youth population and their families.

Inusiqasiarniq: Healthy Choices for Children and Youth

License Number: 03 004 12N-A
Principal Investigator
Tagalik, Shirley
Affiliation:
Hamlet of Arviat
Arviat, Nunavut X0C 0E0
Canada
tagaliktwo@gotmail.com

Number in Party: 4
Research Area: Kivalliq
Communities: Arviat

Summary:
prevention. This is community-driven research initiated by the Hamlet of Arviat and conducted in partnership with the University of Alberta's Dr. Sangita Sharma, Endowed Chair in Aboriginal Health Professor Aboriginal and Global Health Research. The research focuses on assessing child and youth nutrition in order to design and pilot intervention messages for this target group.

Inussiutit: The Material that Makes You Human

License Number: 01 002 12N-A
Principal Investigator
Bathory, Laakkuluk Williamson
Affiliation:
McGill University
Department of Psychiatry
Iqaluit, Nunavut X0A 1H0
Canada
laakkuluk@gmail.com

Number in Party: 2
Research Area: South Baffin
Communities: Iqaluit

Summary:
This research project examines the social, cultural, identity and mental health processes involved in the distribution of locally harvested, culturally pertinent food – inussiutit– to Inuit families with young children in Iqaluit, Nunavut.

Investigating the relationship between traditional foods, culture, and climate change: A qualitative case-study in Cambridge Bay, Nunavut

License Number: 04 052 12N-A
Principal Investigator
Whitfield, Kate
Affiliation:
Lund University
London, Ontario N6C 1H5
Canada
kate.whitfield@gmail.com

Number in Party: 4
Research Area: Kitikmeot
Communities: Cambridge Bay

Summary:
The Canadian Arctic is understood as being one of the most affected by changing climactic conditions. Literature demonstrates that Northern communities profoundly feel the effects of climate change. Nevertheless, this is manifested very differently within various communities. This is why case studies are required, examining the effects felt by local residents.

Food security is a commonly researched issue, as Aboriginal and Inuit groups have significantly lower food security than the rest of the Canadian population, as is food sovereignty as populations rely heavily on imports from the south (store foods).

Overall, Canadian Arctic communities are considered to be extremely vulnerable to both climate change and food insecurity, which is why case study research is valuable contribution to various disciplines, including the field of environmental studies and sustainability sciences.

Land-based Wellness Programs in Nunavut: Inuit Perspectives on a Practice inwhich the Land is a Key Component of Individual and Community Healing

License Number: 01 022 12N-Amended
Principal Investigator
Carroll, Maxine
Affiliation:
Iqaluit, Nunavut X0A 0H0
Canada
carroll.maxine@gmail.com

Number in Party: 2
Research Area: North & South Baffin
Communities: Clyde River, Kimmirut, Pangnirtung, Iqaluit

Summary:
Land-based wellness programs in Nunavut communities benefit from a positive reputation and have been identified as a potential best practice. While a few studies pertaining to the contemporary significance of “the land” in Inuit societies exist, those specifically addressing land-based wellness programs are rare. As two Nunavut-based addiction and drug treatment centers integrating land programming are expected for 2013, it seems appropriate to recognize, honor and learn from the expertise of community members experienced in this practice. That being said, this study proposes to explore and describe land-based wellness programs, from the perspectives of the community members involved.

Monitoring educational and professional success amongst Inuit of Nunavut who have registered in a post-secondary program

License Number: 0301512N-M
Principal Investigator
Rodon, Thierry
Affiliation:
University of Laval
Quebec City, Quebec G1V 0A6
Canada
thierry.rodon@pol.ulaval.ca

Number in Party: 4
Research Area: North & South Baffin, Kivalliq
Communities: Arviat, Baker Lake, Cape Dorset, Clyde River, Igloolik, Iqaluit, Pangnirtung, Pond Inlet, Rankin Inlet, Repulse Bay

Summary:
In Nunavut, little is known about the level of success enjoyed by students with postsecondary education. There is no public data on the programs attended by Inuit students from Nunavut. Nor is information available on the graduation rate of students in postsecondary programs, their employment rate, the links between graduation and employment, whether their employment is related to their post-secondary education, and whether having post-secondary education affects their level of job satisfaction. The main goal of this research is to collect data on success among Nunavut Inuit who are attending or have attended post-secondary programs through the use of surveys. The objective is to make the data available to Nunavut organisations.

Near the Floe Edge: Inuit Women's Roles in the Mixed Economy

License Number: 02 027 12N-A
Principal Investigator
Marineau, Magalie Quintal
Affiliation:
McGill University
Montreal, Quebec H1W 2K6
Canada
magalie.quintal-marineau@mail.mcgill.ca

Number in Party: 3
Research Area: North Baffin
Communities: Clyde River

Summary:
Recent academic research in Nunavut has focused on the potential impacts of climate change on the physical and biological subsystems of the northern ecosystem.

A corollary to this research has been social scientific investigation of the vulnerability of Inuit and other Arctic Indigenous peoples to disruptions in their traditional activities and, ultimately, the security of local food systems. Yet academics and communities alike have focused interests in subsistence adaptability and food security on hunting practice, which is an activity dominated by men.

Meanwhile, little to no attention has been paid to the role of women in subsistence activities, one that I argue is fundamental not only to local food security, but to Nunavummiut cultural resilience as well.

Northern Housing Research: Building envelope performance and Building Integrated Solar Technologies

License Number: 01 009 12N-A
Principal Investigator
Chen, Yichao
Affiliation:
Concordia University
Montreal, Quebec H3H 1K9
Canada
yichao.yc@gmail.com

Number in Party: 4
Research Area: Baffin
Communities: Iqaluit

Summary:
The proposed research project will take place in Iqaluit, Nunavut for 1-2 weeks in March or April, 2012. The exact dates are yet to be determined depending on logistics and weather conditions. Three Master students supervised by the Chief Technical Officer from Concordia University, Montreal, will conduct a two-part fieldwork project in Iqaluit for the research on Northern Housing. In 1995, a 3.2kWp grid-connected photovoltaic (PV) system was installed on the façade at the Nunavut Arctic College, Nunatta Campus.

Since then, the façade integrated PV system has been delivering electricity to the grid with no interruption until 2006. However, the monitoring systems stopped functioning after 2007. While it is entirely possible that PV is still producing electricity and feeding into the grid, there is no way of knowing for sure without external monitoring equipment.

Nuna-Regionalism: Regional Design in the Eastern Canadian Arctic

License Number:
Principal Investigator
Holmes, Lauren
Affiliation:
University of Waterloo
Thamesville, Ontario N0P 2K0
Canada
laurenhholmes@gmail.com

Number in Party: 2
Research Area: South Baffin
Communities: Iqaluit

Summary:
This research will aid in the development of a building proposal as part of my graduate thesis in architecture at the University of Waterloo. What I want to know is, “How can communities in Nunavut be built to properly serve the needs and aspirations of its population?”

My answer lies in the design of a building where studio, repair, storage, and retail spaces are available to the public. The purpose of this study is to give me greater understanding of the mixed-economy in Iqaluit so that my design is well informed.

I am searching for information on the shortfalls of the traditional economy and ways in which the Nunavut Land Claims Agreement has been, or can be used in the formation of local, and profitable, entrepreneurial ventures.

Our Baffinland: Traditional Knowledge, Climate Change and Mining in Nunavut

License Number: 0204112N-M
Principal Investigator
Mauro, Ian
Affiliation:
Mount Allison University
Geography & Environment Department
Sackville, NB E4L 1A7
Canada
imauro@mta.ca

Number in Party: 4
Research Area: Baffin
Communities: Igloolik

Summary:
The objective of this research is to document Inuit traditional knowledge regarding climate change, mining and associated social and ecological health on Baffin Island, particularly around Igloolik, using digital social science and filmmaking methodologies.

We will explore questions concerning the effects and challenges presented by climate change in the Foxe Basin; the impacts of reduced sea ice and possible year-round shipping traffic on the Foxe Basin natural resource base; and how Inuit knowledge can meaningfully contribute to predicting the impacts of the Baffinland Iron Mine (BIM), as well as the BIM environmental assessment process. In particular, we will document Inuit knowledge regarding walrus and other marine mammals in the region.

Policy and Local Engagement: Mining in Arctic Canada

License Number: 01 030 12N-M
Principal Investigator
Sinclair, Katherine
Affiliation:
McGill University
Montreal, Quebec H2T 3A3
Canada
katherine.sinclair@mail.mcgill.ca

Number in Party: 2
Research Area: Qikiqtani
Communities: Iqaluit

Summary:
The approval I am requesting is for a small amount of preliminary research that is the precursor to a larger project. My major doctoral project (fieldwork to be undertaken in September 2013) focuses on the ways in which resource extraction policies intersect with northern Inuit interests and priorities, comparing the different understandings of and approaches to mining.

However, the approval I am seeking at this time is to do approximately one month of pre-field work from mid-November to mid-December 2012. The purpose of my trip this year is to establish contacts for my major fieldwork and to fine-tune my research question.

I am therefore applying for approval to travel to Iqaluit this November to speak to people about their interest in my project (and whether they would be interested in participating in my larger study next year), and to ask some preliminary questions about their engagement in, and perceptions of, the mining industry, land use, and identity.

Qikitani Inuit Association Inuit Qaujimajatuqangit Database

License Number: 01 021 12N-M
Principal Investigator
Qaumariaq, Nigel
Affiliation:
Qikiqtani Inuit Association
Department of Lands & Resources
Iqaluit, Nunavut X0A 0H0
Canada
nqaumariaq@qia.ca

Number in Party: 1
Research Area: North & South Baffin
Communities: Arctic Bay, Cape Dorset, Clyde River, Grise Fiord, Hall Beach, Igloolik, Iqaluit, Kimmirut, Pangnirtung, Pond Inlet, Qikiqtarjuaq, Resolute Bay, Sanikiluaq

Summary:
Qikiqtani Inuit Association is creating an Inuit Qaujimajatuqangit (IQ) database. QIA has collected & digitized the Inuit Land Use and Occupancy (ILUO) Data created in the 1970's that was created to aid in the negotiations of the Nunavut Land Claim Agreement. QIA is involved in IQ collection through development (Baffinland) and through protected areas creation (Lancaster Sound National Marine Conservation Area).

QIA is currently incorporating new IQ data into the database. This includes all IQ data that Baffinland has collected during the Environmental Assessment process.

QIA is currently involved in the creation of the Lancaster Sound National Marine Conservation Area. As a part of the process QIA will conducting the Inuit Qaujimajatuqangit/Traditional Knowledge Study component to help aid the creation of the NMCA.

Repairing the Holes in the Net:Responding to the Mental Health Needs of Northern Homeless Women

License Number: 01 010 12N-A
Principal Investigator
Poole, Nancy
Affiliation:
BC Centre of Excellence for Womans Health
Vancouver, British Columbia V6H 3N1
Canada
npoole@cw.bc.ca

Number in Party: 3
Research Area: South Baffin
Communities: Iqaluit

Summary:
Repairing the holes in the net is a pan territorial research project aimed at improving the mental health of northern women who are homeless or in unstable housing.

This project is applied research.In other words, it is designed to help agencies and individuals who are in position to change policy or to design and implement programs work and learn together.The result will be better support for north women with mental health programs.

Return of the Far Fur Country: Early Films of Nunavut

License Number: 01 023 12N-A
Principal Investigator
Geller, Peter
Affiliation:
University of Fraser Valley
Department of History
Abbotsford, BC V2S 7M8
Canada
peter.geller@ufv.ca

Number in Party: 4
Research Area: South Baffin
Communities: Kimmirut, Iqaluit

Summary:
The purpose of this project is to connect a 92 year old archival film with its community of origin: Kimmirut, on Baffin Island, Nunavut. As a result of research

conducted by historian Peter Geller and film maker Kevin Nikkel, the original footage from The Romance of the Far Fur Country (produced in 1919-1920 by the Hudson's Bay Company) was recently returned to the Hudson's Bay Company Archives (Winnipeg) from the National Film and Television Archives (London, England). Sequences filmed in Kimmirut include: kayak making, social activities, clothing design, and hunting.

These scenes were then put together into a short picture story, Reminisces/Life Story of an Eskimo, which incorporated Inuktitut syllabics into the film's titles. The final two hour motion picture - which also includes footage from northern Ontario, northern Alberta and Alert Bay, B.C. - was never shown in northern Canada.

Self-determination and postsecondary education: The Inuit and the Circumpolar North

License Number: 05 002 12R-M
Principal Investigator
Gaviria, Patricia
Affiliation:
University of Toronto
Tonronto, Ontario M5V 2V5
Canada
patricia.gaviria@utoronto.ca

Number in Party: 2
Research Area: Kitikmeot, Kivalliq, South Baffin
Communities: Iqaluit, Rankin Inlet, Cambridge Bay

Summary:
Discuss with college administrators and faculty how their everyday work relates to the social and economic needs of Nunavut and Greenland, and specifically of the Inuit people.

Experience how Inuit ways are integrated into education practices at Nunavut Arctic College Compare Inuit approaches to postsecondary education against the political history of Greenland and Nunavut.

Socio-Economic and Traditonal Knowledge Studies for the Agnico-Eagle Mines Limited, Meliadine Gold Project, Environmental Impact Statement.

License Number: 03 008 12N-A
Principal Investigator
Witteman, John
Affiliation:
Agnico Eagle Mines Ltd.
Canmore, Albterta T1W 2K2
Canada
jwitteman@agnico-eagle.com

Number in Party: 6
Research Area: Kivalliq
Communities: Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, Baker Lake, Repulse Bay, Coral Harbour

Summary:
The objective of the socio-economic and traditional knowledge studies is to collect baseline data to enhance Agnico-Eagle's understanding of conditions in communities potentially affected by the Meliadine Project.

The information will be used to assess the potential and residual impacts of the Meliadine Project on socio-economic conditions and resource use and to frame impact mitigation and benefit enhancement measures to be implemented by Agnico-Eagle as conditions for Meliadine Project approvals.

Socio-Economic Studies in Support of the Izok Project

License Number: 05 004 12R-M
Principal Investigator
Klein, Heidi
Affiliation:
Sanammanga Solutions Inc.
Calgary, Alberta T3A 5C4
Canada
sanammanga@gmail.com

Number in Party: 7
Research Area: Kitikmeot
Communities: Cambridge Bay, Kugluktuk, Kugaaruk, Gjoa Haven, Taloyoak, Umingmaktuk, Bathurst Inlet, Resolute Bay, Arctic Bay, Pond Inlet

Summary:
MMG Canada Inc (MMG) is planning to start feasibility studies for a proposed project that will include an open pit and underground mine at the High Lake and/or Izok Lake.Ore concentrate (zinc, copper, lead) will be transported to an Arctic Port at Grays Bay by an all season road. The closest communitites in the Kitikmeot include Kugluktuk and Bathirst Inlet.MMG has retained Sanammanga Solutions Inc. to undertake Socio-economic studies in relation to the potential project.The object of the socio-economic studies is to collect and analyze information relating to the potential socio-economic impacts of the project.Where applicable, the information will be used to better understand how changes to the environment may affect the residents of the Kitikmeot; as well as how the project may change lives of Kitikmeot residents directly.

Strengthening Inuit Male Youth Identity

License Number: 03 020 12N-M
Principal Investigator
Tootoo, Becky
Affiliation:
University of PEI
Baker Lake, Nunavut X0C 0A0
Canada
btootoo@hotmail.com

Number in Party: 2
Research Area: Kivalliq
Communities: Baker Lake

Summary:
Although the project is specific to Baker Lake the findings may be related to the other communities. The outcome of this project will benefit others in the way developing programming for our Inuit male youth.We all have the same needs to become healthy capable human beings.

The Ethnoarchaeology of Inuit Sea-Mammal Hunting, Northwest Foxe Basin, NU

License Number: 02 026 12R-M
Principal Investigator
Desjardins, Sean
Affiliation:
McGill University
Department of Anthropology
Montreal, PQ H3A 2T7
Canada
sean.desjardins@mail.mcgill.ca

Number in Party: 2
Research Area: North Baffin
Communities: Igloolik

Summary:
The economic and ideological importance of sea-mammal hunting by Inuit has been largely neglected by both archaeologists and anthropologists.

My research seeks to address how dramatically the sea-mammal hunting economy has changed in the Arctic since AD 1200. Recent archaeological surveys of ancestral Inuit sites around Igloolik and Hall Beach, Nunavut, have proven the existence of a widespread and long-lasting walrus hunting tradition. In mid-July 2011, I hope to travel to Igloolik, where I will use archaeological data collected in the region and oral-

histories of Igloolik elders, to build a dialogue with local elders and hunters on the regional change over time of seal and walrus hunting practices and beliefs. The fieldwork is scheduled to coincide with the annual summer walrus hunt in Igloolik, and will last from approximately July 10 to August 1, 2011.

The Nature of Knowing: Exploring northern learning environments in the path of success

License Number: 05 007 12N-Aregistry
Principal Investigator
Beveridge, Navarana
Affiliation:
Iqaluit, Nunavut X0A 0H0
Canada
execdir@qia.ca

Number in Party: 2
Research Area: South Baffin, Kitikmeot
Communities: Iqaluit, Kugluktuk

Summary:
The objective of the research will be to understand and promote, through public policy, the learning environments that foster an individual's positive contribution to their community, amongst northerners across Canada.

Research in the Yukon, Nunatsiavut, and NWT will be done by other Jane Glassco Arctic Fellowes from those regions. Research license requirements are being filled out separately in those regions also.

The Northwest Passage and the construction of Inuit pan-Arctic identities

License Number: 0406112R-M
Principal Investigator
Aporta, Claudio
Affiliation:
Carleton University
Department of Sociology & Anthropology
Ottawa, Ontario K1S 5B6
Canada
claudio_aporta@carleton.ca

Number in Party: 7
Research Area: Kitikmeot
Communities: Kugluktuk, Pond Inlet

Summary:
The Northwest Passage is an integral part of Canada's territory and identity. At the same time, these waters and adjacent shores are largely known to Inuit, who see vast parts of this territory as their homeland.

Inuit have occupied the land, sea and sea ice seasonally, the different elements of the territory constituting a vast network of routes and areas.

This project will look at Inuit use and understanding of the Northwest Passage, through a study and documentation of Inuit traditional trails and place names, which have interconnected Inuit groups across the Arctic since time immemorial.

The Role of Oral Strategies in Developing Literacy

License Number: 03 021 12N-M

Principal Investigator
Iglookyouak, Bertha
Affiliation:
University of Prince Edward Island
Baker Lake, Nunavut X0C 0A0
Canada
biglookyouak@hotmail.com

Number in Party: 1
Research Area: Kivalliq
Communities: Baker Lake

Summary:
This research project involves understanding how integrating music and other oral strategies can improve and/or enhance Inuktitut literacy skills for children.

I plan to use oral tools and strategies with my homeroom grade three class to see if these tools/strategies improve and/or enhance their reading and writing skills. Since I do teach two different grade three classes, each half time and only in Inuktitut, I wish to compare the level of literacy learning of my homeroom class with the other grade three class.

For this class I will not be using the oral strategies. Since I do want to compare classes I will be doing running records tests on both classes at the start and end of the project. This research project will take place in the Rachel Arngnammaktiq Elementary School in Baker Lake, Nunavut and should take about 6 months to complete.

The role of the public sector in northern Governance: Delivering on their mandates and meeting stakeholder expectations in the 21st Century:What does it take?

License Number: 01 024 12N-A

Principal Investigator
Rodon, Thierry
Affiliation:
University of Laval & University of Saskatchewan
Quebec City, Quebec G1V 0A6
Canada
thierry.rodon@pol.ulaval.ca

Number in Party: 1
Research Area: South Baffin
Communities: Iqaluit

Summary:
The project will examine governance challenges and best practices in Canada's north, focusing on the role and effectiveness of the public sector. More specifically, it will examine human and fiscal resource capacity issues, the role of the public sector in ensuring the efficient delivery of programs and services:the development and implementation of effective policy frameworks:and the management of regulatory regimes affecting economic development.

Typological aspects of Inuit Sign Language

License Number: 03 005 12R-M

Principal Investigator
Schuit, Joke
Affiliation:
University of Amsterdam
Amsterdam, 1012VT
Netherlands
j.m.schuit@uva.nl

Number in Party: 2
Research Area: Kivalliq, Kitikmeot
Communities: Baker Lake, Rankin Inlet, Taloyoak

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.

Youth Participation in the Management of Auyuittuq National Park and Park-Related Activities

License Number: 01 026 12N-M

Principal Investigator

Brown, Amy

Affiliation:

University of Manitoba
Winnipeg, Manitoba
amybrown87@hotmail.com

Number in Party: 4
Research Area: Qikiqtaaluk
Communities: Pangnirtung, Qikiqtarjuaq

Summary:
This work is part of an international project, and seeks to explore the cooperative management of resources by government and indigenous groups. Examples of this considered in the present study include Auyuittuq National Park in Canada, Uluru-Kata Tjuta National Park in Australia, and Te Waihora in New Zealand. Through these three case studies, we hope to determine if collaborative management does a good job at addressing indigenous aspirations, by incorporating and applying local knowledge to decision-making.

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