Compendium of Research in the Western Northwest Territories

1996-1997

Including: Scientific Licences, Archaeology Permits, Wildlife Permits and Fisheries Permits

AURORA RESEARCH INSTITUTE
AURORA COLLEGE

About the Aurora Research Institute

The Science Institute of the Northwest Territories (SINT) was created by the NWT Legislative Assembly in 1984. In 1995, the SINT divided and merged with the Aurora College in western NWT and the Nunavut Arctic College in eastern NWT. The Science Institute West was renamed the Aurora Research Institute (ARI) in the spring of 1996.

ARI's mandate is to improve the quality of life for western NWT residents by applying scientific, technological and indigenous knowledge to solve northern problems and advance social and economic goals.

ARI is responsible for:

- licensing and coordinating research in accordance with the NWT *Scientists Act*: This includes work in the physical, social and biological sciences and in traditional knowledge.
- promoting communication between scientists and the people of the communities in which they work;
- promoting public awareness of the importance of science, technology and indigenous knowledge;
- fostering a scientific community within the NWT which recognizes and uses the traditional knowledge of northern aboriginal people;
- making scientific knowledge available to the people of the NWT;
- supporting or conducting research which contributes to the social, cultural and economic prosperity of the people of the NWT.

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August 6, 1998

Foreward

The Compendium of Research is an important part of the Aurora Research Institute's efforts to keep northerners and other researchers informed of research activities in the western Northwest Territories. By participating in the research licensing requirements for the north, researchers ensure that their research information is accessible to all those who need to be informed and others who may be interested in these activities. The sharing of this information allows for greater involvement of northerners in the development of research programs that are pertinent to the needs of the north. This information also enables researchers to work collaboratively on related issues.

The need for scientific and technological knowledge and development for northern environments is increasingly recognized by the people, the governing agencies and the private sector of the Northwest Territories. Training in these areas is critical to allow for adaptation to the rapidly changing social and economic structure of the North. ARI actively promotes partnerships with community groups, government agencies, and private sector organizations in order to identify research needs and strategies to meet these needs. Researchers are also partners in these endeavours.

Through the research licencing and permitting requirements, aboriginal organizations and community groups have input into the research that is conducted and are kept informed of current and proposed research in their region. ARI in cooperation with researchers assist in training community members to participate in research projects within and outside their communities.

Researchers make a valuable contribution to the north as they provide information and education through schools and community presentations, and they also provide employment and training opportunities. There are an increasing number of partnerships and cooperative programs being developed with researchers and the people of the north. By sharing this information the people of north are able to help in shaping the future direction of research in their region.

The Aurora Research Institute works to connect the scientific community with the communities of the Northwest Territories by promoting and supporting studies which improve the understanding of the natural resources and indigenous knowledge and cultures of the NWT. The Compendium of Research is one means in which scientific and traditional knowledge is made available to people of the NWT.

Valoree Walker, PhD
A/Director
Aurora Research Institute

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About This Book

This Compendium is a summary of research licences/permits that were issued in the western Northwest Territories during 1996 and 1997. A separate Compendium, that includes licences/permits for Nunavut, can be acquired through the Nunavut Research Institute in Iqaluit. The information contained in this book is a collaboration between the Aurora Research Institute (ARI), the Prince of Wales Northern Heritage Centre (PWNHC), the Department of Resources, Wildlife & Economic Development (RWED) and the Department of Fisheries & Oceans (DFO). The section for RWED also includes information on Wildlife research permits issued for Nunavut. The Compendium series began in 1986.

LICENSING IN THE NWT

Under territorial legislation, all research in the NWT requires a licence/permit from one of four agencies, depending on the type of research being conducted:

- Prince of Wales Northern Heritage Centre - Archaeology
- Department of Resources, Wildlife & Economic Development, Government of the Northwest Territories - Wildlife
- Aurora Research Institute - All other research in the western NWT
- Nunavut Research Institute - All other research in Nunavut

Included in this Compendium are Fisheries Research projects conducted by the Department of Fisheries and Oceans staff. Other researchers conducting fisheries research are required to have a Science Licence and are included in this section of the Compendium. In addition to one of these licences/permits there may be other permits required depending on the nature of the research work.

Through the licensing process, researchers are informed of appropriate organizations, communities and other licensing/permitting agencies that should be contacted prior to conducting studies. Licensing ensures research activities are communicated to interested parties and provides opportunities for the exchange of information.

Although the Compendium is a summary of all licences/permits issued in the western NWT by all three licensing/permitting bodies, it is not a list of actual research conducted. Verification and additional information should be requested from the researcher.

HOW TO USE THIS BOOK

This book is divided into two parts. Part I describes the research activities for 1996 and Part II describes research activities for 1997. In each part there are four main sections. Each of these sections reflect a specific licencing agency and type of licence/permit issued. Within each section research descriptions have been grouped by subject, and listed alphanumerically by the principal researcher's last name. Refer to the Table of Contents for the specific page each section and/or subject area begins on.

1. Reference Number

The reference numbers shown in each of the Aurora Research Institute's subject areas refer to the file number issued to a particular researcher. It allows cross referencing with research material that may be available on file or in the ARI library. The reference numbers of the other two agencies refers directly to the permit number given to each researcher. When requesting information from any of these agencies on specific research outlined in this compendium please refer to the reference number in your correspondence.

2. Regional Abbreviations

Throughout the book reference is given to the specific land claim region(s) that the research took place in. The regions are shown in Figure 1. Some of the land claim regions are still under negotiation and boundaries shown are only approximations. The abbreviations shown for each region are as follows:

DC	Deh Cho	**SS**	South Slave
NS	North Slave	**SA**	Sahtu
IN	Inuvik (includes Gwich'in and Inuvialuit Settlement regions)		

3. Index

At the back of this book, you will find a index. This has been developed to help the reader cross reference material more easily. The numbers listed in the index refer to the number listed with each research description, not page number.

AVAILABLE IN PRINT OR ON DISKETTE

The Compendium is available as a printed publication, on diskette or is available on the Aurora Research Institute Web site. The Web site can be found at www.aurresint.nt.ca. The diskette version is in a WordPerfect format and has limited search capabilities. Contact the ARI for further information regarding search capabilities and services. Both the printed publication and the diskette are available from the Aurora Research Institute. We highly encourage photocopying of the printed publication to promote its distribution.

FOR MORE INFORMATION ABOUT THE RESEARCH LISTED IN THIS BOOK

Please Contact:

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Prince of Wales Northern Heritage Centre
Department of Education, Culture & Employment
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Department of Resources, Wildlife & Economic Development
Wildlife & Fisheries Division
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Fax: 867-873-0293

Department of Fisheries & Oceans
Central and Arctic Regions
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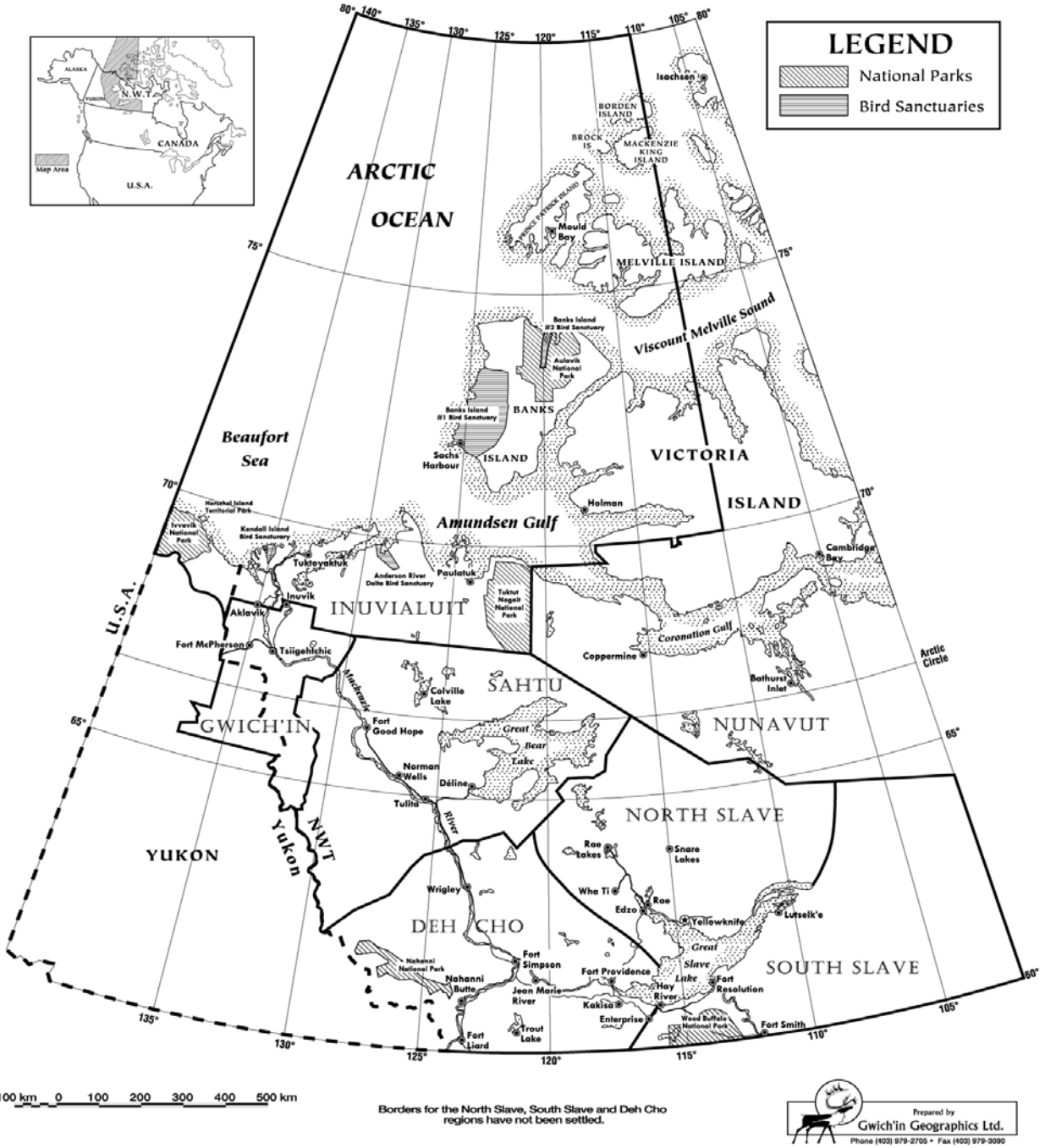
Winnipeg, MB R3T 2N6
Tel: 204-983-5000
Fax: 204-983-2402

SEND US YOUR COMMENTS

Whether you are a researcher or an interested member of the public, the Aurora Research Institute welcomes your comments and suggestions about the Compendium. Contact us by mail, fax or telephone.

Figure 1 Land claim regions in the Northwest Territories



1996 Research Projects

Aurora Research Institute
Science Licences

Biology

001 Biology
Brungs Simard, Hanita
#12, 8525 107 St.
Edmonton, AB T6E 4L1

Reference No: 12 402 588 (ARI)
Region: SS Location: Fort Smith region, near Wood Buffalo National Park and Slave River
Year of Research: 1996
Other members of team: Ruthann Gal

A Fire History, Fuel and Ecological Assessments of the Fort Smith, NWT Area
The study area was sampled on a 2x2 km grid. The vegetation type of the area in question was predominantly jack pine. At each 2 km interval, three procedures were done; (1) plant identification, (2) percentage cover of each species in approximately 100 m. sq., and (3) a tally of the fuels (logs, twigs, branches) that fell along a triangular transect. Discs were removed from one large unscarred tree and one scarred tree for fire event dating and for correlation with weather data.

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002 Biology
Carolsfeld, Joachim
WestWind SeaLab Supplies
434 Russell Street
Victoria, BC V9A 3X3

Reference No: 12 402 591 (ARI)
Region: IN Location: Husky Lakes and southern Liverpool Bay
Year of Research: 1996
Other members of team: self

Chemical Investigation of Marine Invertebrates from Husky Lakes
The researcher collected invertebrates, algae, and microorganisms with the use of SCUBA, plankton nets, bottom dredges, and intertidal collection. The goal of this research was to identify the different species present, where most were situated, and what were the best conditions for them to grow in. Marine invertebrates and algae were collected from 33 sites in the near shore waters of the Eskimo Lakes, Northwest Territories, in August, 1996 for chemical investigation by the Institute for Marine BioSciences (NRC, Halifax, NS). A characterisation of shallow water ecosystems of the area was also gained by the work, which supplements the more intensive ecological surveys carried out along the bottom by Wacasey in the early 1970's from a boat.

003 Biology

Chapman, Peter M.
EVS Consultants
195 Pemberton Ave
North Vancouver, BC V7P 2R4

Reference No: 12 402 593 (ARI)
Region: NS Location: Lupin Mine area, Contwoyto Lake
Year of Research: 1996
Other members of team: P. Kiffney, L. Watson, G. Mann, A. Fikart, F. Bishay

1996 Field Evaluation of Aquatic Effects Monitoring Methods to Determine Mining Effects

The AETE program was established to conduct field and laboratory evaluations and comparisons of selected environmental effects monitoring (EEM) technologies for assessing impacts of mine-effluents on the aquatic environment. In 1996, building upon previous work completed in 1995, the AETE Program sponsored preliminary field evaluations of aquatic effects monitoring at seven candidate mine sites. The sites were chosen to be representative of mine sites across the country. The purpose of the survey was to provide information that would be useful in creating recommendations for a national mining EEM program. As part of this program, a field survey was conducted at the Echo Bay Lupin Mine in the NWT. Field studies were conducted in September and water, sediment, and benthos samples were collected. Water and sediment samples were analysed for conventional and physical parameters, total and dissolved metals. Concentrations of some metals were in sediments from exposure sites than from reference sites, but there was no difference in the abundance or diversity of benthos (Bottom-dwelling animals) between exposure and reference sites. Neither effluent quality nor receiving environment water quality during discharge could be assessed. Data from the mine indicated that the effluent is not acutely toxic, nor are permit limits exceeded. Three fish species (lake trout, round whitefish, lake cisco) were collected in sufficient numbers in both reference and exposure areas to be considered potential sentinel species. Overall, the exposure and reference areas were found suitable for future studies by the AETE Program.

004 Biology

Chiperzak, Doug
Department of Fisheries & Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: 12 402 532 (ARI)
Region: IN Location: Shingle Point, Coney Lake, outer Mackenzie River Delta, & Mackenzie River (Aklavik)
Year of Research: 1996
Other members of team: K. Howland, I. McLeod, M. Cockney, C. Chetkiewicz

Inconnu Anchor Tagging and Radio Tagging Migratory Study

A total of thirty-four inconnu were fitted with radio transmitters at four different locations. Fourteen inconnu were fitted with transmitters at Shingle Point, five in the outer delta, five in the Peel River, and ten in the Arctic Red River. Transmitters had a battery life of one year and fish were tracked primarily with fixed wing aircraft. All of the Shingle Point inconnu which were located remained on the coast in 1996. All inconnu which were biologically sampled at Shingle Point were found to be current-year spawners. In 1997, one Shingle Point inconnu was located in the Peel River, while seven others remained on the coast. One potential spawning area was located in the Peel River. Inconnu radio-tagged in the Arctic Red River divided into two groups. One group continued to Arctic Red River and then up the Mackenzie River to the Rampart rapids. The Rampart rapids is a probable inconnu spawning location. Tracking results suggest that inconnu move out of the Peel and Arctic Red Rivers after spawning. Tracking results also indicate that inconnu which presumably spawned at the Rampart rapids in the Mackenzie River move downstream after spawning.

005 Biology

Ferguson, Brian
Department of Fisheries and Oceans
P.O. Box 2310
Yellowknife, NT X1A 2P7

Reference No: 12 402 588 (ARI)
Region: IN Location: Fish Hole on Fish Creek
Year of Research: 1996
Other members of team: Cheryl Chetkiewicz, Steve Sandstrom

Rat River / Fish Creek Fish Hole Spring Reconnaissance
The study examined the location and extent of suitable overwintering habitat for charr in the Rat River. Another objective was to document the location of spring upwellings at the overwintering site on Fish Creek. Knowledge of winter flow and temperature regimes of the spring and the effect of air temperature on the availability of overwintering habitat will provide managers with some ability to predict environmentally caused fluctuations in the populations.

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006 Biology

Jacobson, Toni Lynne
AGRA Earth and Environmental Ltd
610 Richard Road
Prince George, BC V2K 4L3

Reference No: 12 402 592 (ARI)
Region: NS Location: Bluefish Hydro Electric Plant, Yellowknife River
Year of Research: 1996
Other members of team: D. Knapik

Fish Habitat Study in Water Course from Bluefish Hydro Dam to Bluefish Trailrace
Field work was done on September 13 and 14, 1996. Physical stream characteristics, water quality, fish habitat, and flows were measured and observed. Lake trout, lake whitefish, and northern pike were observed in the trailrace. Lake whitefish were observed holding in pools both days in the Yellowknife River upstream from the confluence to Prosperous Lake. Lake whitefish caught in domestic gill nets set in Prosperous Lake were mature; females were almost ripe, and some males were ripe (pers. comm., G. Bohnet, Prosperous Lake). Water temperature in the river was 13^{o}C; and spawning was likely to have occurred within two to three weeks, depending on the water temperature. Two sites on the Yellowknife River were fished and lake whitefish, northern pike, and lake chub were observed in the river. Four fish species were caught by gill net, including grayling and longnose sucker.

007 Biology

Kalich, Laura
Bryant Environmental Consultants Ltd.
P.O. Box 1324
5016 48th Street
Yellowknife, NT X1A 2N9

Reference No: 12 402 590 (ARI)
Region: NS Location: Indin Lake area (Colomac area)
Year of Research: 1996
Other members of team: staff of Vista Engineering and Renewable Resource & Environment Committee of the Dogrib Dene

Environmental Baseline Program Colomac Area (Indin Lake), N.W.T.
The program included seven aspects of research. Water quality was measured through a number of sampling locations at different times of the year. A hydrology study measured high water discharge and stage measurements at seven streams in the vicinity of the proposed all-weather road. Bathymetric surveys were conducted on Lex Lake and six smaller un-named lakes in the vicinity of the proposed road. Sampling of sediments in key lakes in the study area were done, and eight streams were surveyed in order to document fish habitat and utilization. Baseline data was also collected on fish species composition, relative abundance, age, size, and habitat of principle lakes in the vicinity of the road. A preliminary review was conducted to observe heritage resources in the study area. Two elders from the Treaty 11 Renewable Resource Environmental Committee, with the assistance of an interpreter, were hired for this preliminary purpose. No archeological excavation or specimen removal was conducted during this program. A literature review of relevant environmental documentation concerning wildlife, vegetation, geography, traditional knowledge, and climatology was also done.

008 Biology

Morantz, David
Rescan Environmental Services
Sixth Floor, 1111 W. Hastings Street
Vancouver, BC V6E 2J3

Reference No: 12 402 562 (ARI)
Region: NS Location: Koala Watershed, north of Lac de Gras
Year of Research: 1996
Other members of team: V. Banci, P. Ladyman, G. Vander Slagt, R. Allard, D. Jarratt

BHP Diamonds Baseline and Long-Term Monitoring Aquatic Studies
The techniques used for the assessment of the fisheries in the Lac de Gras area included small-mesh (1.5 inch) gillnetting, trapnetting (mark-recapture program), minnow-trapping, and electroshocking (backpack model for stream surveys). Most fish were live-released. A select number of fish from each of the lakes and streams were taken (killed) for aging verification (using otoliths), tissue metals concentration, and diet analyses.

009 Biology

Pattenden, Rick
R.R.& L. Environmental Services Ltd.
17312 - 106 Avenue
Edmonton, AB T5S 1H9

Reference No: 12 402 589 (ARI)
Region: SS Location: Kennedy Lake
Year of Research: 1996
Other members of team: Staff of R.R.& L Environmental Services Ltd.

Kennedy Lake Project - 1996 Aquatic Studies

The field program was conducted during three sampling periods (spring, summer, and fall). Lakes and streams in the immediate area of the potential mine site were examined. Information collected from these water bodies included data on limnology, benthic macro invertebrates, plankton, and fish communities. The fish inventory focussed on determining species composition, distribution, relative abundance, and biological characteristics of captured fish. Tissue samples were also collected from a small number of fish for analyses of background metal concentrations. Sampling techniques included angling, snorkelling, backpack electrofishing, beach seining, minnow traps, and gill netting for fish. Plankton nets and eckman dredges were used to collect plankton, and benthic macro invertebrates. In an attempt to assess movement patterns of lake trout, Arctic grayling, and northern pike in the study area water bodies, fish were tagged with numbered Floy anchor tags

010 Biology

Witteman, John
#1102 4920 - 52 Street
BHP Diamonds Inc.
Yellowknife, NT X1A 3T1

Reference No: 12 402 578 (ARI)
Region: NS Location: Lac de Gras, Koala Camp
Year of Research: 1996
Other members of team: J. Kidd (ABR Inc.) and other personnel from ABR Inc. and BHP Diamonds Inc.

NWT Diamonds Project - Revegetation Research

ABR and BHP Diamonds Inc. have initiated several revegetation studies at the Fox portal, Ekati Diamond Mine, to investigate techniques for rehabilitating areas disturbed by mining in the low arctic. Three soil topdressing are being examined: esker sand, lake bottom sediment and organic soil (derived from scraped tundra). To evaluate the soil types, a variety of plant cultivation treatments is being investigated, including shrub cutting and seeding with native-grass cultivars, native forbs, and indigenous species. To expand vegetation options, two plant propagation experiments were started in the summer of 1996. These consisted of transplanting cuttings of five shrub species into pockets of topsoil placed on a waste rock stockpile and transplanting sprigs of the aquatic grass *Arctophila fulva*, (Artic Pendant Grass) along the margin of a former sedimentation pond. The five shrub species were bearberry, low blueberry willow, alpine azalea, labrador tea, and resin birch. A total of 239 pocket (1195) cuttings were established. Seeds of native plant species were also collected in the Claims Block or near Yellowknife to identify potential candidates for use in reseeding. The species collected were *Epilobium augustifolium, Epilobium latifolium, Astragulus eucosmus, Oxytropis deflexa* and *Hedysarum mackenzii*.

Contaminants

011 Contaminants

Reimer, Ken
Royal Military College
Department of Chemistry and Chemical Engineering
Kingston, ON K7K 5L0

Reference No: 12 402 494 (ARI)
Region: IN, SA Location: Tuktoyaktuk, Sawmill Bay, Shingle Point, Cape Parry, and Tuktoyaktuk BAR-3
Year of Research: 1996
Other members of team: J. Rogers, M. Adams, Z. Kyzuk, K. Baker, W. Ingram, I. Mace, M. Allen

Environmental Assessment of the Hamlet of Tuktoyaktuk Solid Waste Disposal Area, Saw Mill Bay and Cape Parry, and Cleanup of a Former DEW Line Site, BAR-3 Tuktoyaktuk.

The Environmental Science Group (ESG) was requested by DND and NWSO to conduct environmental investigations of former DEW Line sites and other military bases in the NWT. Personnel collected soil, plant, water, paint chips, and insulating material for analysis of potential contaminants. The results from the Tuktoyaktuk Solid Waste site indicate very little chemical contamination with only a few localised impacted areas within the landfill where there were elevated levels of copper, lead, and zinc. The remediation program of the DEW Line at BAR-3 was successful and no contaminants were found in the soil or water. Four other landfills in Tuktoyaktuk were assessed and found to have limited evidence of chemical contamination. Cleanup plans were developed using the DEW Line Cleanup Protocol. The site of Sawmill Bay has three general areas of Uranium contamination and little contamination by other chemicals. Cleanup recommendations were also based upon the DEW Line Cleanup Protocol. The contamination of site PIN-M at Cape Parry was defined through the collection and analysis of soil and paint samples. Site remediation was carried out according to the Dew Line Cleanup Protocol, and 1400m^3 of contaminated soil will be excavated in the summer of 1997.

Fossils

012 Fossils

Butterfield, Nicholas J.
Department of Earth Sciences
Biological & Geological Building
University of Western Ontario
London, ON N6A 5B7

Reference No: 12 412 031 (ARI)
Region: SA Location: Little Bear River and Dodo Canyon
Year of Research: 1996
Other members of team: N. Baumgarten

Palaeontology of the Lower and Middle Cambrian Mount Cap Formation, Western NWT.
A variety of exceptionally well preserved 'soft-bodied' and shelly fossils were collected from Lower and Middle Cambrian (ca. 530-520 million years old) Mount Cap Formation, Mackenzie Mountains during our 1996 field season (July 2-30). These include Burgess Shale-type macro fossils from two localities, one of which is new (Dodo Mountain), and a wide range of associated shelly fossils. Particularly notable were the chancellorids and hyolithids (problematic Cambrian organisms best known from the Burgess Shale), including the first discovery of a fossilised hyolithid gut. Other significant finds include exceptionally preserved muscle strands in lingulid brachiopods, a variety of sponges and trilobites, and the enigmatic conical fossil Salterella. Of particular palaeoecological importance was the collection of diverse fossil faecal pellets; such 'trace fossils' provide basic information on how these early animal communities were operating. Approximately 100 samples were also collected for micro fossil analysis, although this work has yet to be carried out. Current collaboration includes geochemical analysis of extracted organic-walled fossils and a taphonomic analysis of the phosphatised muscle tissue. To date, material from the 1996 field season has been presented at three international meetings and is included in several scientific articles currently in preparation.

013 Fossils

Wilson, Mark V.H.
Department of Biological Sciences
Z312 Biological Sciences Building
University of Alberta
Edmonton, AB T6G 2E9

Reference No: 12 412 044 (ARI)
Region: DC Location: "MOTH" locality, Mackenzie Mountains
Year of Research: 1996
Other members of team: A. Lindoe, G. Hanke, Dr. Tiiu Marss

Search for Early Devonian Shark Skeletons and Associated Early Devonian Fish Fossils at the 'MOTH' Locality, Mackenzie Mountains, N.W.T.

During July of 1996, an international field party visited a single locality in the Mackenzie Mountains to search for and collect fossils of early fishes. The researchers collected Upper Silurian-Lower Devonian jawed and jawless fish fossils, with priority given to rare articulated specimens. Located specimens were packaged and returned to the University of Alberta for preparation. The rock that encases the 'MOTH' fossils was removed either mechanically, or by treatment with acetic acid so that the fine details were revealed with minimum damage to the fossils. Preliminary study of the samples is helping to date and to correlate the rocks with strata elsewhere in the Mackenzie Mountains, Arctic Canada, and Europe. Fossil specimens recovered include outstanding examples of both jaw-less and jawed vertebrates, including species of early shark-like fishes never seen before. These fossil fish should support years of research for the University of Alberta as well as collaborations with international scientists.

Geology

014 Geology
Bleeker, Wouter
Geological Survey of Canada
601 Booth Street
Ottawa, ON K1A 0E8

Reference No: 12 404 506 (ARI)
Region: NS Location: Gordon Lake, Beniah Lake, and Hearne Lake areas
Year of Research: 1996
Other members of team: self

Thematic, Structural, Stratigraphic and Geochronological Studies of the Slave Structural Province
The study focussed on the relationships between rocks in the core of the "Sleepy Dragon Complex," The researcher mapped and described the various rock types and assessed their role in northeast of Yellowknife, and the adjacent volcanic and sedimentary rocks

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015 Geology
Eaton, David
Geological Surveys of Canada
Continental Geoscience Division
1 Observatory Crescent
Ottawa, ON K1A 0Y3

Reference No: 12 404 525 (ARI)
Region: SS, NS, DC Location: road corridors near Great Slave Lake, Nahanni Butte, Fort Providence, Yellowknife, and Wood Buffalo National Park
Year of Research: 1996
Other members of team: A. Jones (GSC), Fred Cook (U.of C.), Bill Padgham (DIAND)

Seismic and Electromagnetic Studies of the Earth's Crust: Great Slave Lake to Nahanni Butte
The geology of the region from Great Slave Lake to Nahanni Butte preserves a record of tectonic events that span over half of the earth's history, from the Archean to the Tertiary Periods. From a nucleus northeast of Yellowknife, the North American continent has grown over this enormous time interval (more than 2.5 billion years) by the accretion of crustal material to its western margin. To investigate the nature of these growth margins, and the geometry of crustal blocks at depth, this multi-agency project has undertaken a series of geophysical studies. Using techniques akin to those employed for oil exploration but at a much larger scale, seismic profiles, have provided convincing images of ancient subduction (a process in which slabs of crustal material descended down into the Earth's interior). Coincident electromagnetic studies, which make use of natural variations in the Earth's magnetic field to identify conductive bodies in the crust, provide an alternative perspective on crustal structure. Taken together, these studies are helping to piece together a regional picture of tectonic evolution of western North America.

016 Geology

Nixon, Mark
Geological Survey of Canada
601 Booth Street
Ottawa, ON K1A 0E8

Reference No: 12 404 398 (ARI)
Region: IN Location: Mackenzie Valley
Year of Research: 1996
Other members of team: self

Active Layer Monitoring Network in the Mackenzie Valley

During June, July, and August 1996, the annual survey of the active layer monitoring system in the Mackenzie Valley was completed from Fort Simpson to the Arctic coast. One site was lost to animal damage on Richards Island, another was restored after the fire at Tulita, as well as a new installation at Saline River. The sites now number 57. Water-filled clear plastic observation tubes record maximum depth of thaw each year while air and ground temperature loggers provide a thermal record at many sites. When possible, sites are close to automatic weather stations and are shared with research groups doing complimentary work. Along this 1400 km transect, active layer thickness varies more as a result of local factors, related to situation, than to regional climate, associated with latitude. Though the spacial variation is complex, over the last four to six years, thaw penetration has increased at many sites over much of the system. In the longer term, measurements from this transect could be used to help model climate change impact on near surface permafrost in this fragile environment.

017 Geology

Pehrsson, Sally
Geological Surveys of Canada
601 Booth Street
Ottawa, ON K1S 2C8

Reference No: 12 404 504 (ARI)
Region: NS Location: Indin Lake
Year of Research: 1996
Other members of team: self

Structure and Stratigraphy of the Indin Lake Greenstone Belt (detailed bedrock mapping)
This was the final summer of work for this phase of mapping in Indin Lake. The mapping data (including structural, petrological, geochemical, and geochronological) enabled a detailed geological history of the project area to be constructed. This included the timing of major events, including volcanism, plutonism and sedimentation, and subsequent deformation. The results were presented in a Ph.D. thesis.

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018 Geology

Perks, Matthew
1-26 Earth Science Building
University of Alberta
Edmonton, AB T6G 2E3

Reference No: 12 404 520 (ARI)
Region: NS Location: MacNaughton Lake area
Year of Research: 1996
Other members of team: Dr. Tom Chacko

Igneous and Metamorphic Evolution of the Deep Crust of the MacNaughton Lake Area
Examination of the temporal and genetic relationship between metamorphism and granitoid magmatism was achieved through detailed mapping of granite-metasediment contacts to examine the thermal effects of granite intrusion. This relied on a detailed documentation of the mineral assemblages, textures, metamorphic grade, and relative timing of the meta-sedimentary and meta-igneous rocks in the MacNaughton Lakes area. Isotope U-Pb studies of granite and metasediment minerals were used to constrain the absolute timing of the intrusions and metamorphism. Rock samples for this work were collected using a hammer.

019 Geology

Stubley, Mike
Energy Mines and Petroleum Resources
G.N.W.T.
Box 1320
Yellowknife, NT X1A 2L9

Reference No: 12 404 382 (ARI)
Region: NS Location: Wagenitz Lake area, south-central Slave province
Year of Research: 1996
Other members of team: K. Pollock, J. Wannecke, L. Ransom

Geology of the Wagenitz Lake Area, south-central Slave Province (NTS 85 P/4)
A crew of four people spent eight weeks examining various aspects of rock outcrops between Wagenitz and Rocky Lakes, approximately 70 km north of Yellowknife, and just south of the past-producing Discovery Mine. Numerous rock samples were collected for chemical analysis and to test for economic concentrations of some metals. Most of the area is covered by sedimentary rock that formed from sand and mud at the bottom of an ancient sea about 2.65 billion years ago. Layering in these rocks shows evidence of extensive folding, and specific minerals give indications of the ancient pressures and temperatures that existed when the rocks were folded. The folds are non-continuous and show that the area was subsequently broken (faulted) into kilometre-scale blocks which were shuffled together in the distant past. Sorting out the past configuration of the area was a prime objective of the research, as it gives clues on tracing other geological features such as the nearby gold mineralization. No significant concentrations of gold or other metals were discovered in 1996, but a large area covered by an unusual white rock (termed rhyolitic porphyry) prompted some to speculate its presence may have been related to the nearby gold occurrences.

020 Geology

Turner, Elizabeth
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Reference No: 12 412 040 (ARI)
Region: SA Location: Mackenzie Mountains near Norman Wells, Fort Norman, and Wrigley
Year of Research: 1996
Other members of team: G.M. Narbonne, N.P. James, W. Macfarlane

Palaeontology and Sedimentology of Late Proterozoic Little Dal Reefs, Mackenzie Mountains, NWT.
This field season was the conclusion of field work on the Little Dal reefs, a spectacular group of ancient reef deposits. Reefs of this age (ca. 800-900 million years, before the advent of multicellular life on earth) are poorly understood relative to their younger counterparts and present a valuable window into an unknown stage in the evolution of early ecosystems. Previous work in the Mackenzies (1991, 1992, 1994) had revealed a complex history to the growth of these reefs and findings in 1996 completed this data base with information regarding the terminal growth and demise of the reefs. This information and its interpretation are described in a paper published in the Journal of Sedimentary Research (*Growth Dynamics of Neoproterozoic Calcimicrobial Reefs, Mackenzie Mountains, Northwest Canada*). Laboratory-based work now in progress involves analysis of the composition of the reefs and detailed description of their fossil components.

Health

021 Health

Schuller, Paul
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Reference No: 12 408 111 (ARI)
Region: IN, NS, DC Location: Yellowknife, Fort McPherson, Paulatuk, Tuktoyaktuk, and Sahtu
Year of Research: 1996
Other members of team: Dr. G.W. Thompson

Dental Knowledge of a Group of Northern Canadians 10-15 years olds.
The purpose of this survey was to determine the understanding that a group of 10-15 year-olds living in the Inuvialuit, Gwich'in, and Sahtu districts of the Northwest Territories have regarding the recognition and prevention of periodontal-gingival disease. A total of 953 students completed the survey; the median age being 12.5 years. The results of the survey indicate that an understanding of the disease processes, socio-economic situations, and cultural differences must be taken into consideration if long term improvements in oral health are to be realised.

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022 Health

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Reference No: 12 408 112 (ARI)
Region: SA Location: K'asho Got'ine (Fort Good Hope)
Year of Research: 1996
Other members of team: Patricia Pierrot

Evaluation of Sources of Vitamin A and Calcium in Traditional and Market Foods in K'asho Got'ine, Northwest Territories
Data collection began with the organization of focus group meetings. A steering committee was formed by five community members to assure the proper functioning of the project in the community. A local project coordinator was hired to help recruit participants for the study, and to translate where necessary. Adults were invited to participate in the study through promotion of the project in the community, as well as home visits. Women were the most likely group to provide information on nutrition, as well as to influence the food intake of the family. Data collection occurred in structured focus group discussions, followed by individual assessment of food preferences during home visits with each participant. Four focus groups were conducted in March and June 1996. Two groups of 10 individuals were formed and each group participated in discussions on both vitamin A and calcium separately. An additional discussion group was conducted at the end of the study (January 1997) to discuss the results of the analysis, and the appropriateness of the food-items selected for potential promotion in the community.

Physical Sciences

023 Physical Sciences

Burn, Chris
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Ottawa, ON K1S 5B6

Reference No: 12 404 325 (ARI)
Region: IN Location: Richards Island (Illisarvik), Garry Island
Year of Research: 1996
Other members of team: Alex Elanik, Audrey Dallimore

Investigation of Ground Ice Development in Sediments of the Mackenzie Delta Area.
In 1996, investigations of ground ice conditions at Illisarvik on Richards Island were continued. A series of benchmarks were installed to monitor how the ground deforms around ice wedges as they expand and contract each year. These benchmarks were installed in June, and surveyed in September and November. Thermistor cables were also installed to determine how the temperature at the ground surface and at the top of the permafrost changes as air temperature varies over the year. Data collection continued on how growing season conditions change with the distance from the coast. Finally, a project was initiated in collaboration with the Aurora Research Institute to determine the electrical conditions in lake water as it freezes.

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024 Physical Sciences

Digel, Mark
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Calgary, AB T2P 0W1

Reference No: 12 404 524 (ARI)
Region: NS Location: Lac de Gras region, southwest Diavik claim block
Year of Research: 1996
Other members of team: Members from Vista Engineering, Penner and Associates, Fedirchuk McCullough & Associates, and Page Burt (Bathurst Arctic Services)

Phase 3 Environmental Baseline Program, Diavik Diamond Project, Lac de Gras, NWT
Methods of data collection included water quality and bottom sampling in Lac de Gras and Lac du Sauvage, automatic and manual water level recordings, bathymetric work, automatic weather stations, and the monitoring of air-borne particles and visibility. There was a continuation of the baseline studies of soils, terrain, and vegetation, as well as fish population, habitat, health, and spawning habits studies, baseline wildlife data collection, heritage resources studies, and traditional knowledge programs.

025 Physical Sciences

Dixon, James
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Geological Survey of Canada
Calgary, AB T2L 2A7

Reference No: 12 404 421 (ARI)
Region: IN Location: northern Richardson Mountains, from MacDougall Pass northwards to Boundary Creek
Year of Research: 1996
Other members of team: self

Stratigraphy and Sedimentology of Permian and Triassic Strata, northern Yukon and adjacent NWT
A brief 3-day field season was undertaken in July 1996 to revisit locations that had been examined in previous years in order to resolve problems or gather new information. Daily flights from Inuvik were taken to the various sites. Site visits lasted from 15 minutes to several hours and at each site the rocks were identified and described, the vertical arrangements of rocks was measured and noted, and samples (about fist-sized) were taken where deemed necessary. Samples were taken to Calgary where they were used either to make thin-sections for examination under a microscope, or to recover microscopic fossils. Only basic geological tools were used (a hammer for sample collection and a 1.5 m measuring stick). The 1996 field work concluded the data-gathering part of the project and the final results are now published as Geological Survey of Canada, Bulletin 528.

026 Physical Sciences

English, Michael
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Reference No: 12 404 425 (ARI)
Region: SS Location: Slave River Delta
Year of Research: 1996
Other members of team: M. Stone, C. Smith, M. Harris

Sediment Sampling on the Slave River Delta, NWT
In mid-June, the base-camp was re-established on Steamboat channel. For each day the researchers were in the delta, samples of shallow sediment cores from several shallow submarine landforms within channels and along the outer delta of the Slave River were taken. The core of sediment was sectioned into 2cm thick sections, air dried, and shipped south to be analysed for trace metals and organic contaminants.

027 Physical Sciences

Forbes, Donald L.
Marine Environmental Geoscience
Bedford Institute of Oceanography
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Dartmouth, Nova Scotia B2Y 4A2

Reference No: 12 404 399 (ARI)
Region: IN Location: Tuktoyaktuk Peninsula, Richards Island, modern Mackenzie Delta front
Year of Research: 1996
Other members of team: F. Jodrey

Coastal Impacts of Climate Change

The Coastal Impacts project on the Beaufort Sea coast had two complementary objectives; to improve our understanding of coastal processes, and to develop methods for prediction of coastal impacts of changing climate. Field work was performed from the Alaska border to the Tuktoyaktuk Peninsula and included sites of archaeological significance in Ivvavik National Park, sites on the outer Mackenzie Delta, at North Head, and in the vicinity of Tuktoyaktuk. The program consisted of surveys of the beach and near shore using a combination of high-resolution global positioning system [GPS] and echosounding systems which allowed us to develop a three dimension picture of the shape of the beach and near shore. The field work concentrated on revisiting 11 sites which were investigated in the past several years to look for changes that can be related to changing environmental parameters such as storms, floods, etc. There were also observations of the recovery of eroded areas affected by the fall 1993 storm. Erosion was measured at GSC monitoring sites (Tent, Ellice, and Taglu Islands, North Head, Tuktoyaktuk, Tibjak Point, and Toker Point) and near shore bathymetric profiles were acquired where possible. Sediment samples were taken with a jet drill and the thickness of the active layer was measured at several sites as input into models of coastal evolution. Aerial photography was also flown at selected sites for comparison with historical air photos in the order to provide a more complete picture of coastal variability.

028 Physical Sciences

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Reference No: 12 404 526 (ARI)
Region: ALL Location: Mackenzie River
Year of Research: 1996
Other members of team: Jerome Gaillardet, Bernard Dupre

Sampling of Water from the Mackenzie River and some of its Principal Tributaries

In August 1996, we sampled the Mackenzie and the Arctic Red River at Tsiigehtchic, as well as the Peel River at Fort McPherson. In addition, several of the large tributaries of the Mackenzie (Liard, Peace, Slave, Hay, Yellowknife, Athabaska rivers) were also sampled in northern Alberta and the NWT. Sampling consisted of collecting a few litres of river water, which were then filtered to separate the suspended matter (sediments) carried out by the river. An investigation was made of the chemical composition of the dissolved and suspended phases for their major and trace element contents. To our knowledge, this is the first study focussing on Sr (Strontium), Nd (Neodymium), Pb (Lead), and Os (Osmium) isotopic concentrations of a major drainage basin worldwide. The analytical work is currently being done out at the University of Paris (mass spectrometry) and the University of Toulouse (ICP-MS facilities). Some results show that Strontium isotopic analysis allow an identification of the regions that contribute the most, by chemical weathering, to the total element load carried by the Mackenzie River. It is noteworthy that the denudation rate of the Precambrian Shield areas is very low. The results also allowed for a calculation of the rate at which the Mackenzie Basin is being chemically eroded. The calculated rates are not very different from those found for the Amazon River basin, which is unexpected in view of the usually assumed premise that chemical erosion of continents occurs much faster under warm, tropical climates compared to very cold regions. In a collaborative effort, C. Gariepy is determining the amounts and the isotopic compositions of atmospheric heavy metals deposited in the drainage basin of the Mackenzie (Yukon, NWT, and northern BC) using lichen samples. The results from that research should provide answers to whether the wild basin of the Mackenzie River is significantly contaminated by industrial activities.

029 Physical Sciences

Kershaw, G.P.
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Edmonton, AB T6G 2E8

Reference No: 12 404 116 (ARI)
Region: SA Location: Camp 222, Canol Heritage Trail
Year of Research: 1996
Other members of team: Wendy Davis, Jennie Christensen, Michael Smilski, Taly Drezner

Ecological and Geomorphological Investigations in the Alpine Tundra of the western Mackenzie Mountains
In 1996, spring and late summer visits were made to the Canol study area. Automated weather stations were serviced, and the stored data was recovered. During July and August, detailed studies were completed on the natural recovery of Canol Project disturbances on the Mackenzie Mountain Barrens. Microclimate, soil, and vegetation studies were completed over approximately 6 km of the abandoned section between Mile Post 212 and 216. Six borrow pits, eight vehicle tracks, and two bladed areas in addition to undisturbed sites were found and studied. Data analysis continues on this study. In addition to these studies, work was completed on the vegetation and microclimate of an exposed esker, and a section of patterned ground. These studies were to evaluate the relationship between plants, soil disturbance, and microclimate. A small study was completed on crustose lichens which were used to date the development of rock glaciers in the area of the Yukon border. Lichen diameters were similar to those determined for areas to the south, in the vicinity of Tungsten. Ptarmigan crop analysis indicates that in the early autumn, birds feed mostly on willows and some of the smaller forbs. The sample was small, but there appears to be no difference between adults and young of the year, nor between the sexes. Automated weather stations were left running again in the hopes that a sixth complete year of information could be collected on temperatures (soil and air), wind speed, global radiation, precipitation, and snowpack depth. This data will be useful in the development of theories regarding the presence and status of permafrost landforms in the area.

030 Physical Sciences

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Reference No: 12 404 116 (ARI)
Region: SA Location: 10 km north of Tulita
Year of Research: 1996
Other members of team: Wendy Davis, Jennie Christensen, Michael Smilski, Taly Drezner

Studies of the Environmental Effects of Disturbances in the Subarctic (SEEDS)
On June 7, 1995 a forest fire burned through the SEEDS (Studies on the Environmental Effects of Disturbances in the Subarctic) camp and research site that was established in 1985, 10 km north of Tulita. As a result of the fire, all studies planned for the area were suspended until September 1995 when it was determined that an opportunity to shift the focus of investigations to that of assessing the impacts of fire was now possible. During May 1996, the research site was rebuilt and reactivated with new automated weather stations, and a section of an unburned forest site was selected for comparison (3km north of the original site). The area containing cooking facilities and food cache was enclosed within a solar powered electric-shock fence. In July and August, sampling was completed to describe the vegetation, the plant recovery, the permafrost changes, the soil, and the small mammals using the site. During February 1997, supplies to operate the camp were taken by snowmobile into the camp from the winter road. At this time, snowpack sampling was conducted, and data stored on the automated weather stations was retrieved.

031 Physical Sciences

Lesack, Lance
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Burnaby, BC V5A 1S6

Reference No: 12 404 485 (ARI)
Region: IN Location: Mackenzie Delta near Inuvik
Year of Research: 1996
Other members of team: Margaret Cobbett, Kathryn Pipke, Murray Hay (MSc students)

Biogeochemistry of Lakes in the Mackenzie Delta
This is an on-going research project and the long-term goal is to develop a biogeochemical model for lakes in the Mackenzie Delta, and ultimately, a more general ecosystem model for lakes in the flood plains & deltas of major world rivers that could help assess the effects of multiple stresses on rivers as a result of global change. Specific goals for the 1996 season included evaluating of the strength of methane emissions from a set of lakes in the Mackenzie Delta near Inuvik and evaluating algae community composition as a potential predictor of flooding regimes within lakes of the delta. During May, we successfully collected samples of methane that accumulated under the ice of 27 lakes during the winter. During August we returned to the same set of lakes and collected samples of algae for community analysis. Analysis of algal communities from previous years and preliminary analysis of the samples collected this year have lead to a publication in "Arctic and Alpine Research" entitled " A paleohydrological model for the Mackenzie Delta, NWT (Canada): A diatom-base approach for evaluation of past river discharge" (Authors: Hay, Smol, Pipke, & Lesack).

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032 Physical Sciences
Mackay, J. Ross
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University of British Columbia
Vancouver, BC V6T 1Z2

Reference No: 12 404 247 (ARI)
Region: IN Location: Garry Island, Illisarvik, pingo 20 km west of Tuktoyaktuk, and Paulatuk
Year of Research: 1996
Other members of team: Dr. C. R. Burn, Carleton University

Permafrost Studies: Western Arctic Coast
The researcher continued studies on the origin of permafrost, the ice found within permafrost, and processes that helped to create the present geocryologic environment. These studies were conducted on Richards Island, Inuvik, and Paulatuk. The different subjects were (1) Pingos, their growth, stability and the possible "birth" of a pingo from a frost mound in a drained lake on west side of Richards Island, (2) the effects of very strong winter winds blowing from the higher land south of Paulatuk north to the sea. Many rocks become abraded by wind blown sand and it has taken thousands of years for the larger rocks to become abraded and (3) a study of inactive ice wedges near Inuvik.

033 Physical Sciences

Marsh, Philip
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Reference No: 12 404 378 (ARI)
Region: IN Location: Trail Valley Creek, 50 km NE of Inuvik
Year of Research: 1996
Other members of team: Dr. J. Pomeroy, Mr. C. Onclin, Ms. N. Neuman, Mr. M. Russell & Mr. B. Reid

Snow Accumulation / Runoff in High Latitude Permafrost Basins

During 1996 we carried out detailed field studies in the Inuvik area. This work looked at the factors controlling the movement of energy and water between the land surface and the atmosphere during the spring snowmelt period. This controls both the supply of energy and water to the atmosphere, as well as snowmelt and therefore spring runoff in the streams and rivers. The long term objective of these studies is to provide an improved ability to predict weather, climate, and water resources. Improved predictive ability is essential to properly manage future environmental change and to adapt to such changes. Our work concentrated on measuring the energy fluxes (solar and heat radiation, evaporation or condensation, and the heat transfer between the air and the surface) for different surface types. A variety of specialised instrumentation were used to do this, including eddy correlation instruments. These instruments measure the vertical movement of both energy and water to or away from the surface by measuring the wind, air temperature, and humidity 10 times every second. One focus considered the importance of bare patches in controlling snowmelt. The size and shape of bare patches is very important in controlling the rate of snowmelt and few computer models of melt consider this factor. In order to better understand these processes and to develop better methods of predicting snowmelt, an atmospheric model for predicting snowmelt over surfaces with patchy snow is currently being tested. This work is being carried out with researchers in England. Other work carried out in 1996 included the testing of a continuous dye injection system for measuring stream discharge during periods when the channels are blocked with snow and ice. This is a major problem since the spring flood is the major event of the year, with the highest discharge and often over half of the annual streamflow. The development of this relatively simple system for measuring spring discharge would result in an improved technique for the operational measurement of streamflow in northen areas of Canada.

034 Physical Sciences

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Reference No: 12 404 248 (ARI)
Region: IN Location: Offshore Beaufort Sea
Year of Research: 1996
Other members of team: Paul Johnston, Darren Tuele and Peter Gamble

Ice Thickness Topography Study - Beaufort Sea

The base for operations was the Polar Continental Shelf Project Base at Tuktoyaktuk. The ice measurements were made by untended instruments operating beneath the sea throughout the year. The instruments were positioned in April 1995 and retrieved in March 1996. They were recovered through the ice using aircraft-based logistics. The survey of water properties was conducted at about 15 selected sites in the offshore, using a ski-equipped Twin Otter as a flying laboratory. Observations were made by lowering a probe to 1500 m depth or to the sea floor, whichever was shallower. The recorded data from sonars recovered at three sites provided full 12-month records of the ridging and thickness of the ice cover from April 1995 to March 1996. These data are now processed, and statistical summaries can readily be requested if required.

035 Physical Sciences

Narbonne, Guy
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Kingston, ON K7L 3N6

Reference No: 12 412 040 (ARI)
Region: IN Location: Wynniatt Bay, Victoria Island
Year of Research: 1996
Other members of team: Dr. Noel P. James, Mr Bill McFarlane

Precambrian Reefs on Victoria Island
Fieldwork near Wynniat Bay on northern Victoria Island was carried out by Professors Guy Narbonne and Noel James in July, 1996. The rocks are limestones called the Boot Inlet Formation of the Shaler Supergroup, and are approximately 800 million years old. Although these rocks are nearly twice as old as the oldest corals, small reefs made by colonies of bacteria called "stromatolites" are common. Nearly a dozen layers of reefs occur in the rock and some layers can be traced laterally over many kilometres. These reefs range from grocery-box-sized mounds less than a metre across to house-sized structures several tens of metres wide and 15 metres high. Although these reefs lack corals or any other shells, they show a structure that is similar to the ones built by ancient and modern corals. They also grew in the same ways - they grew up as the sea rose, and as the sea fell they either grew out or died. These features imply that the origin of reefs began many millions of years before corals themselves appeared. The reefs on Victoria Island are among the best examples of Precambrian reefs known anywhere in the world.

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036 Physical Sciences

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Reference No: 12 404 519 (ARI)
Region: DC Location: near Fort Simpson
Year of Research: 1996
Other members of team: Laura Liblik, Inez Kettles

Organic Carbon Accumulation in Discontinuously Frozen Peatlands
Research was conducted in a peatland complex approximately 12 km west of Fort Simpson (4 km west of the Wrigley Road). The major component of the field work included the collection of peat cores in both frozen and unfrozen terrain to about 1 m depth. Approximately 100 cores were collected. Core holes were approximately 15 cm wide, and were filled to minimize terrain disturbance. This research project also examined methane (an important greenhouse gas) emissions form a variety of peat landforms. Other information collected included peatland temperatures, water levels, and samples to analyze water chemistry.

Social Sciences

037 Social Sciences
Bedard, Joanne
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Reference No: 12 410 525 (ARI)
Region: SS Location: Hay River
Year of Research: 1996
Other members of team: self

Interaction of the Christian and Traditional Spirituality Among the Dene Nation.
This work involved talking to Band leaders, Elders, members of the Dene Cultural Institute (DCI), and others suggested by DCI staff. The method of data collection was designed in co-operation with community members and facilitated through DCI. Observation of the annual leadership meeting at Hay River was included as a snapshot of current Dene socio-political issues. Confidentiality was maintained at the request of the participants. Summaries of findings were deposited at the Dene Cultural Institute, The Woodland Cultural Centre, and McMaster University.

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038 Social Sciences
Blake, Dale
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Reference No: 12 410 514 (ARI)
Region: IN Location: Inuvik, Aklavik, and Tuktoyaktuk
Year of Research: 1996
Other members of team: self

Mythical/Material: The Pragmatic Artistry of Inuit Autobiography
Twenty-one interviews were conducted in the Mackenzie Delta area to investigate material and cultural conditions, changes over the years, and perceived stereotypes about Natives and "outsiders" (those who had moved to the North from more southern areas). Interviewees were also questioned on their familiarity with three books by Inuit autobiographers, Alice French and Anthony Thrasher. Three Gwich'in, twelve Inuvialuit, and nine "outsiders" were interviewed. Amongst concerns expressed were alcoholism, elder abuse, respect for land and animals, loss of traditions, problems with the education system, and the perception that "outsiders" were being forced out of the area. Informants were also asked about their ideas of other cultures, whether Native or "outsider," as well as what constituted the best and worst things about living in the North. The autobiographies of French and Thrasher did not seem to be widely read, although *Thrasher: Skid Row Eskimo* seemed better known than *My Name is Masak*, or *The Restless Nomad*. The high cost of living and turmoil caused by political changes seemed major concerns to interviewees. The results of the interviews will be incorporated into my Ph. D thesis on Inuit biography.

039 Social Sciences

Borisov, Andrian
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Petrovskogo,1,

Reference No: 12 410 511 (ARI)
Region: IN Location: Inuvik, Fort McPherson, and Aklavik
Year of Research: 1996
Other members of team: Greg Poelzer, Political Science Program, UNBC

Aboriginal Self Government in the Canadian and Russian North: Problems and Prospects
Studies in the Northwest Territories were part of a comparative study of Canadian and Russian Norths to understand the problems and prospects for greater aboriginal self-determination. Areas examined included the level of aboriginal organization at local, district, and regional levels. There was also an examination of the resources available to aboriginal peoples, and their leadership to pursue collective interests, the types of collective action undertaken by aboriginal organizations, and the opportunities and constraints which both facilitate and hinder the pursuit of greater aboriginal political autonomy.

040 Social Sciences

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Reference No: 12 410 521 (ARI)
Region: NS Location: Yellowknife
Year of Research: 1996
Other members of team: self

Women's Access to Employment in Northern Resource Communities: Barriers and Opportunities.
Since the main objective of visiting the NWT was the dissemination of research results and verification of findings with a similar community, sampling was done on a convenience basis, using lead contacts, and networking. Interviews with women who were both participants and non participants in the resource industry, trainers/educators, employers, labour force development staff, and/or advocacy organizers, was done using a triangulation methodology and feminist research techniques and principles.

041 Social Sciences

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Reference No: 12 410 503 (ARI)
Region: ALL Location: ALL
Year of Research: 1996
Other members of team: self

The Changing Roles of Principals in the Northwest Territories

This qualitative study focussed on how principals in the Northwest Territories understand and enact their responsibilities as educational leaders. Seven principals were selected, with consideration given to geographic location, gender northern experience, and school size. The study began with principals' written responses to general questions, followed by semi-structured interviews each, document analysis, and informal communication over six months of data collection. Principals identified school successes and expressed concerns over behavioural problems, student wellness and self esteem. Three major themes emerged around concepts of community, character and change. These were 1) community involvement in learning, 2) a focus on caring and community health and 3) effects of empowering communities to make educational decisions critical to local schooling and school programs.

042 Social Sciences

Causley, Trisha
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Reference No: 12 410 510 (ARI)
Region: NS Location: Rae-Edzo
Year of Research: 1996
Other members of team: Leslie Saxon

Dogrib Phonology and Variation

The research was about Dogrib language variation undertaken in January and February 1996. The goal of the project was to determine the existence of correlations between linguistic variation and social groupings based on age or geographic location. The study involved interviews with 135 adult speakers ranging from 19-80 years of age from all five Dogrib communities: Dettah, Rae-Edzo, Rae Lakes, Snare Lake, and Wha'ti. In the study, three types of phonological variation are identified: (1) oral/nasal alternation in vowels; (2) variation in vowel quality; and (3) affricate/fricative alternation.

043 Social Sciences

Clark, Karin
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2500 University Dr. N.W.
Calgary, AB T2N 1N4

Reference No: 12 410 519 (ARI)
Region: IN Location: Inuvik, Fort McPherson, and Tuktoyaktuk
Year of Research: 1996
Other members of team: C. O'Neil (co-researcher), Jana Zavitz, Cory Hetherington

Arctic Technology Preservation Project

The Arctic Technology Preservation Project was born of the recognition for the need to preserve the technological capital that had been developed and tested during the great amount of the oil and gas exploration in the Canadian Arctic during the 1970's and early 1980's. The project consisted of three components: securing and protecting data from destruction or loss; cataloguing and organising the data into an easily accessible form, and; collecting and archiving data at a single location. The research which was conducted in the NWT was focussed towards the second component. Specifically, this research attempted to collect and document the engineering, environmental, and socio-economic initiatives that had resulted in new technological innovations in the North. Toward this end, the research conducted in the summer of 1996 recorded information and insights from local people regarding their experiences interacting with the oil companies during the "boom" of exploration activity. The research consisted of approximately 30 interviews with people, both aboriginal and non-aboriginal, residing in Tuktoyaktuk, Inuvik, Fort McPherson, and Aklavik. Interviews were taped (when permitted) then transcribed and archived at the Arctic Institute of North America. These interviews served as the basis for a written report which has been published by the Arctic Institute of North America under the title, *Breaking Ice with Finesse: Oil and Gas Exploration in the Canadian Arctic*.

044 Social Sciences

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University Park, PA 16802

Reference No: 12 410 524 (ARI)
Region: IN Location: Holman
Year of Research: 1996
Other members of team: self

Aging and Intergenerational Family Dynamics in a Copper Inuit Community.

The research was conducted in Holman from January 1 through December 31, 1997. The investigation focussed on the attitudes towards and significance of aging in light of the rapid social changes that Inuit in Holman have experienced during the past 30-35 years. The material position of aged Inuit (age 50 and over) was also investigated, as well as the importance of the aged, both economically and symbolically, to young adult Inuit in the community. Data was collected through a series of survey and questionnaire procedures, which included a household census interview, health and functionality interviews, an age interview, life history interviews, and a biweekly hunting/fishing/food sharing survey. The research involved approximately 60 Inuit over age 20 in the community.

045 Social Sciences

Crowell, James W.
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Fort Smith, NT X0E 0P0

Reference No: 12 410 517 (ARI)
Region: ALL Location: All schools and School Boards in the NWT
Year of Research: 1996
Other members of team: self

(Home schooling in the Northwest Territories) Parent Choices in Education: Opting out of the Northwest Territories Education System.

This research used a mixed methods approach in three phases to collect data on parent choices that remove students from the local community school. In phase one, the study surveyed the principals of all schools in northern communities during the 1995-1996 school year. A simple form was used to get information on the grade level, age, gender, and parent occupations of home-schooled children in each community. Of the 84 principals polled, 64 responded with information indicating that 76 students were being home schooled, and a further 15 were in private schools in southern Canada. Some simple observations made so far are that most home schooled children are non-native, and in the primary and elementary levels. Most of the families have only begun home schooling in the last two or three years, and the vast majority of home schooled children (51) were in the three south-western communities of Yellowknife, Hay River, and Fort Smith. Only 12 students were home schooled in the Eastern Arctic, and all long-term home schoolers, those with 7 or more years of experience, were in the same three south-western communities. While the quantitative data may raise some interesting questions for further study, the more interesting results should come from interviews with home schooling parents in the next phase of the research.

046 Social Sciences

Doyle, Marie
327 Shuter St.
Toronto, ON M5A 1W8

Reference No: 12 410 507 (ARI)
Region: NS Location: Yellowknife
Year of Research: 1996
Other members of team: self

Towards a Woman-Positive Basic Education - MA Thesis

The researcher utilized three methods to gather data: interviews, document analysis, and a questionnaire. Interviews of staff and students at the Yellowknife campus were the centre piece of the planned research, while the questionnaires were used principally to identify interview participants. Informed consent was obtained through the use of consent forms.

047 Social Sciences

Driscoll Engelstad, Bernadette
10012 E. Bexhill Drive
Kensington, MD 20895

Reference No: 12 410 318 (ARI)
Region: IN Location: Holman
Year of Research: 1996
Other members of team: Alice Omingmak

Crafting Culture: Inuit Women's Work in the Canadian Arctic

This fieldwork session, undertaken in June 1996, continues dissertation research focussing on women's cultural production in the community of Holman, NT. The dissertation examines the economic, social, and cultural significance of Inuit women's creative labour in producing clothing, graphic arts, and crafts locally and for a commercial export market. The researchers discussed cultural production and marketing issues with seamstresses, craftswomen, and artists, updating data collected in earlier field sessions (1988-1992) with the assistance of Mary Okheena, Julia Ogina, and Alice Omingmak. The visit was timed to coincide with the Kingalik Jamboree, an annual three day festival, celebrating the vitality of Holman as an Inuit community. The researchers and the members of the Hamlet Council discussed a proposal to establish a local Archives and Research Centre for receiving publications, photographs, and research materials dealing with the Holman region. The book, Inuit:Glimpses of an Arctic Past by David A. Morrison (Canadian Museum of Civilization, 1995) was presented as an inaugural donation. Dr. Beatrice Collignon also presented the Council with her dissertation on geographical place names in the Holman region.

048 Social Sciences

Fajber, Elizabeth
505 Riverdale Avenue
Ottawa, ON K1S 1S3

Reference No: 12 410 475 (ARI)
Region: SA Location: Fort Good Hope
Year of Research: 1996
Other members of team: self

Healing Movements in the North: Gender and Tradition in Fort Good Hope, NWT.

The visit to Fort Good Hope served two purposes; to report findings from my M.A. research on concepts of healing and wellness in Fort Good Hope, NWT based on research in 1995, and also to consult with the K'asho Gotine Community Council in the development of a long-term research project (four years) exploring questions of gender and healing in the community. As this project was community based and collaborative, it was essential to obtain community input and direction to ensure the project was based on participatory research models. Language learning was also the focus of this visit for the researcher. In addition, participation in the daily life of the community aided the researcher's understanding of community issues.

049 Social Sciences

Hornal, Robert
Hornal Consultants Ltd.
401 - 1755 W. Broadway
Vancouver, BC V6J 4S5

Reference No: 12 410 523 (ARI)
Region: NS, SS Location: All communities in North Slave and South Slave
Year of Research: 1996
Other members of team: L. McNeil

A Socio-Economic Impact Assessment of the 5034 project
Draft community profiles of Yellowknife, Detah, Rae-Edzo, Snare Lake, Rae Lakes, Wha Ti, Lutsel k'e, Fort Smith, Fort Resolution, Hay River, and Hay River Reserve have been prepared. The profiles include data on the demographic, economic, employment, transportation, education, health, and community services in each of the communities. The information as collected through published and unpublished government and private reports, and through telephone interviews with representatives of the communities. This draft will form part of a socio-economic impact assessment that will be prepared in 1997.

050 Social Sciences

Hosty, Joan
1068 Carter Crest Road
Edmonton, AB T6R 2K2

Reference No: 12 410 520 (ARI)
Region: ALL Location: Fort Simpson
Year of Research: 1996
Other members of team: self

A History of the Community Teacher Education Program in the Western Northwest Territories
Data were collected from the various directors of the Divisional Boards of Education who oversee the programs, as well as from the archives of Aurora College Thebacha Campus.

051 Social Sciences

Jayachandran, John
7128 Ada Boulevard
Concordia College
Edmonton, AB T5B 4E4

Reference No: 12 410 508 (ARI)
Region: IN Location: Inuvik, Aklavik, and Tuktoyaktuk
Year of Research: 1996
Other members of team: Helga Madsen, Eddie Dean Kalausok

The Cultural Contributions of Canadian Aboriginal Societies

The purpose of the research was to study the cultural contributions that the Aboriginal societies have made, and can make, to our Canadian identity. We believe that the Canadian identity has been and is concerned with finding a balance between the forces of community and those of individualism. In recent history, individualism has been moving towards a domination and fragmentation of the sense of community. We believe that the Aboriginal people have an understanding of the sense of community that would serve to moderate the dominating influence of individualism. More specifically, community values such as the sharing of resources, community land ownership, community therapy for deviants, and respect or the elderly were examined. The data for the analysis is from the General Social Survey conducted in the Northwest Territories (Inuvik and Aklavik) in 1996 by Concordia University College. Methodological issues in conducting research in the North are discussed. The findings, overall, suggest significant differences in communitarianism be gender, age, ethnicity, and socio-economic status. Aboriginal people show a greater support for communitarianism in its various dimensions.

052 Social Sciences

Korber, Dianne
6318 108th Street
Edmonton, AL T6H 2Z4

Reference No: 12 410 516 (ARI)
Region: DC Location: Wrigley and Fort Providence
Year of Research: 1996
Other members of team: self

Aboriginal Women's Roles in Forest-Dependent Communities

Research concerning the integration of community values and concerns into forest management plans requires an identification of the many and varied roles of community members who participate in resource-related activities. The research focuses on both women's and men's role in forest resource use activities (including subsistence, industrial, and recreational). Identifying gender specific roles and activities better enable resource managers to identify potential impacts of forest resource development on people's home, workforce, bush, and community life. Broadening the scope of potential development impacts helps planners avoid conflict between resource users, and contributes to overall community well-being. During the fieldwork period (summer 1996), 146 formal surveys were conducted (27.8 percent of the adult population). Participant-observation and informal interviews were also used to collect data on roles, attitudes, an expectations with respect to subsistence harvesting and natural resource development (specifically the forest industry). Survey data categories included socio-demographic status, household and communal activity, subsistence roles and activities, attitudes and involvement in resource development an planning, and perceptions of community stability. Secondary data sources were compiled to supplement local survey data from Statistics Canada, GNWT Bureau of Statistics, Native Women's Association, and Deh Cho Tribal Council.

053 Social Sciences

Kuntz, Patricia A.
35 Stevens Crescent
Yellowknife, NT X1A 3T7

Reference No: 12 410 518 (ARI)
Region: ALL Location: NWT hospitals
Year of Research: 1996
Other members of team: self

Nurses Attitudes Towards Computerization
The population that was used for this study was nurses working in a hospital setting in the NWT. Participants were asked to complete a self-administered questionnaire (1.5 pages) and return the completed questionnaire to the researcher. A letter accompanied the questionnaire explaining the purpose of the study and nature of research to each participant.

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054 Social Sciences

Parlee, Brenda
Canadian Arctic Resources Council
#3 - 4807 49th Street
Yellowknife, NT X1A 3T5

Reference No: 12 410 522 (ARI)
Region: SS Location: Lutsel K'e
Year of Research: 1996
Other members of team: Lutsel K'e Community Researcher, Lutsel K'e Wildlife/Land and Environmental Committee, Health Committee

Community Based Monitoring
In 1996, the *Community-Based Monitoring Pilot Projet (1996)* took place in the Lutsel K'e, Northwest Territories. Similar to other northern communities in the Slave Geological Province, Lutsel K'e is currently faced with unprecedented mineral resource development. The goal of the *Community-Based Monitoring Pilot Projet (1996)* as to design a tool that would increase the capacity of Lutsel K'e and other northern communities to address both the positive and negative effects (achieve benefits and mitigate negative effects) of such development. The project was organized according to three phases. Phase one involved gathering ideas and Chipewyan terminology for concepts like monitoring, indicators and community health. During phase two, themes and indicators of community health were developed through open-ended home-visits with one hundred households in the community. In phase three, a four-step process of monitoring was designed to include: a) gathering information through home-visits, b) summarizing information and communication, c) evaluation of information with a committee, d) reporting.

055 Social Sciences

Pin, Gino
W&D, R.P.O. #2
3502 Raccine Rd.
Yellowknife, NT X1A 2S9

Reference No: 12 410 512 (ARI)
Region: NS, SS, DC Location: Rae-Edzo, Snare Lake, Fort Resolution, and Kakisa
Year of Research: 1996
Other members of team: Donna Diakun, Simon Taylor

Planning study of Northern Native Communities

This study was an evaluation of the success of existing planning and housing practice for Native communities in the western portion of the Northwest Territories, with an emphasis on the relationship between land use/ site planning, and social, cultural and environmental factors. The methodology centred around a core of community input, oral history, interviews, archival research, literature review, and mapping of incremental development to date. Workshops and reviews were held in the four case study communities -- Fort Resolution, Kakisa, Snare Lake, and Rae Edzo -- generated input from local people regarding future development options. Two or three field visits were made to each community. Key findings included the uniqueness of each community's history and present needs, the importance of traditional knowledge, heritage, and the land, the endurance of kinship groups in traditional communities, and the problems with short-range economics that inhibit long-term social benefits. As well, the global application of standard housing and planning options and technical solutions overlooks social, cultural, and environmental needs.

056 Social Sciences

Preston, Andrew
2016 Hollybrook Cres.
Gloucester, ON K1J 7Y6

Reference No: 12 410 500 (ARI)
Region: SA Location: Fort Good Hope
Year of Research: 1996
Other members of team: self

Dene Culture, Identity and the Land: A Family History Case Study

The project objective was to explore and characterize the links between traditional indigenous knowledge and the Dene socio-cultural complex in which this knowledge is realized and activated. Unstructured informal interviews and a participatory approach were used so that the community might have input directly into the direction of the project. This direction was influenced by the community's interest in family history, cultural change and continuity, the character of the relationship with the local natural environment, and strategies for strengthening ties to the land. Preliminary results have shown a need to recast the previous form of the original project in such a way that the project might better suit the needs of the community (ie. to focus on recording family histories as these histories intersect with the land as a vehicle to explore cultural change and continuity).

057 Social Sciences

Prystupa, Mark
Department of Geography
Laurentian University
Sudbury, ON P3E 2C6

Reference No: 12 410 513 (ARI)
Region: ALL Location: Yellowknife, Inuvik, Fort Simpson, Fort Norman, Rae-Edzo, and Fort Resolution
Year of Research: 1996
Other members of team: self

Changing Institutions for Sustainable Water Management

This study evaluated how the changing legislation, policy, and procedures for water management provides for the sustainable utilisation of the resource. This involved informal, unstructured interviews as the primary data source. Queries were directed to a description of the institutional arrangements and the evaluation of criteria. An analysis of pertinent newspaper articles, government documents and files, and academic literature complemented the interviews. Study results were published in the Canadian Water Resources Association edited book entitled *Practising Sustainable Water Management: Canadian and International Experience*.

058 Social Sciences

Richardson, Denrick
P.O. Box 8
Fort Resolution, NT X0E 0M0

Reference No: 12 410 515 (ARI)
Region: ALL Location: Western Arctic communities
Year of Research: 1996
Other members of team: self

Learning to be Responsible: A Case Study on Community Control and Social Change

This case study describes a process. It discusses how the community of Fort Resolution, over the period 1987 to 1997, progressively assumed responsibility of is social destiny. The problem explored in this research focussed on the issue of community development and social change. Two principal questions were explored: first, how does a community develop a system of governance that is responsive to the concern of is residents? Secondly, how is responsibility and collective accountability acquired by a small community for the delivery of services and government programs? Secondary questions such as what is the nature of the community responsibility? Who facilitates these responsibility skills among community participants? And, how and why must a community develop a vision for more autonomy? The answers to these questions were obtained through informal interviews, workshop sessions, public meetings, focus discussion groups, documents and minutes. The whole idea behind participation is that the real experts are the people involved from day to day in getting the job done.

059 Social Sciences

Shimpo, Mitsuru
Japan's Women's University
Department of Sociology
1-1-1 Nishi-Ikuta, Tama-Ku
Kawasaki City, Japan, 214

Reference No: 12 410 277 (ARI)
Region: NS Location: Yellowknife
Year of Research: 1996
Other members of team: self

Aboriginal Educational Development in the NWT

Due to limited time resources, the researcher limited her study to doing consultative interviews with staff members of the GNWT Department of Education, Culture and Employment, and with staff members of Aurora College in Yellowknife. No research was done outside of Yellowknife. This survey was part of a larger international 3-year research project sponsored by Japan's National Museum of Ethnology entitled *Indigenous Peoples in Urban Communities of the World* that started in 1995. The results of the research indicate that while the education policy became more democratic in the 1950's, and school curriculum and teaching materials became indigenous/heritage oriented, the pupils' level of academic performances seem to have deteriorated by the non-indigenous standard. The indigenous peoples did not achieve upward mobility, and the majority are likely to remain in the very low socio-economic groups. Only a few exceptional individuals might emerge into the middle class.

Traditional Knowledge

060 Traditional Knowledge
Nagy, Murielle
21 Mont-Carmel, #4
Quebec, QC G1R 4A5

Reference No: 12 410 373 (ARI)
Region: IN Location: Inuvik, Sachs Harbour, Holman, and Tuktoyaktuk
Year of Research: 1996
Other members of team: Agnes White

Aulavik Oral History Project
Since 1995, the Inuvialuit Social Program (ISDP) has been contracted by Parks Canada to undertake the *Aulavik Oral History Project*, about the history of Banks Island. In 1996, a total of 50 Inuvialuit, most of them elders, were interviewed in Aklavik, Inuvik, Holman, Sachs Harbour, and Tuktoyaktuk, about their knowledge and use of Banks Island. During the summer of 1996, elders were brought by helicopter to 22 sites on Banks Island to be interviewed. On the west coast, the following historical sites were visited: Mary Sachs, Cape Kellett, Blue Fox Harbour, Imnaqpaluk, Lennie Harbour, Siksik Point, Sea Otter Harbour, Storkerson Bay, and Satchik. Inland, archaeological sites were recorded during helicopter surveys of Bernard River, Storkerson River, Big River, Egg River, and Masik Pass. In the southern part of the island, historical sites were visited at Charlie Lake, De Salis, Bay, and at the mouth of the Nelson River, while archaeological sites were visited at Nagiyulialuk and Raddi Lake. On the eastern part, historical and archaeological sites were visited at Naqhaluk, Jesse Bay, and north of Johnson Point. A final report and a video about the project are in progress.

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061 Traditional Knowledge
Raygorodetsky, Gleb
P.O. Box 2240
Inuvik, NT X0E 0T0

Reference No: 12 410 497 (ARI)
Region: IN Location: Gwich'in Settlement Area: Aklavik, Inuvik, Fort McPherson, and Tsiigehtchic
Year of Research: 1996
Other members of team: Four community assistants and a data-entry clerk

Gwich'in Environmental Knowledge Project (GEKP)
The Gwich'in Environmental Knowledge Project (GEKP) began in June 1995 and was completed in December 1997. The GEKP documented Gwich'in traditional environmental knowledge (TEK) about 20 species of fish and wildlife that are important for Gwich'in subsistence: their utilization, their spiritual value, and the ethical principles associated with their use and conservation. In the initial phase of the project, community members, especially elders, were consulted on project design and implementation. The knowledge was recorded by community assistants through a series of interviews with Gwich'in elders, and by reviewing relevant literature. In a focus group session, elders reviewed and revised all the recorded knowledge. Completion of the Phase 1 produced the traditional knowledge book "*Gwich'in Words About the Land*" and an extensive database for use by researchers. Phase 1 also established a successful approach to collecting, storing, and using TEK for modern day renewable resource management. The project has been extended in order to conduct further interviews on a wider variety of species. Publication of a second book is expected in 2000 and the extension and development of the database is ongoing.

Prince of Wales Northern Heritage Centre
Archaeology Permits

062 Archaeology
Andrews, Tom
Prince of Wales Northern Heritage Centre
Yellowknife , NT

Reference No: 96-828 (PWNHC)
Region: SA Location: Deline
Year of Research: 1996

Deline Hotel Heritage Resource Impact Assessment
The proposed site of a new hotel in the Deline settlement underwent a week-long heritage resource assessment impact. The proposed development was considered risky because of its proximity to Sir John Franklin's 1825-1826 Winter Quarters, although test pits in the actual development site did not reveal any significant heritage resources. Other archaeological sites in the area were inspected and it was found that development in other areas had threatened and partially destroyed six house foundations which were (approximately) dated to the 19th and early 20th centuries. The abandoned cemetery 1.5 km northeast of the community was mapped to ensure that it would be protected from future developments, and it was recommended that further development be halted.

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063 Archaeology
Bertulli, Margaret M.
Prince of Wales Northern Heritage Centre
Yellowknife, NT

Reference No: 96-823 (PWNHC)
Region: IN Location: NiRm-1
Year of Research: 1996

Angik Archaeological Field School
This was a continuation of the archaeological field programme with the school children of Paulatuk. The students spent mornings and afternoons on site, weather permitting. They learned the basic methods of artifact recovery and recording. They also learned how to make rubber moulds and plastic casts of objects, and were responsible for recording their daily activities in a journal.

064 Archaeology

Bussey, Jean
Points West Heritage Consulting Ltd.
Langley, BC

Reference No: 96-834 (PWNHC)
Region: NS Location: North of Lac de Gras
Year of Research: 1996

BHP Diamonds Inc. Archaeology Project
The survey of 1996 in the area north of Lac de Gras yielded 25 new sites to the 62 sites that were located in 1994 and 1995. Nine of the new sites were found near previously recorded sites, and new areas of investigation revealed the remaining 16 sites. All of these sites were located on eskers and were characterized primarily by unworked stone flakes and contained light to dense concentrations of artifacts. A number of sites contained one or more stone tools, and all but one site was designated as pre-contact. One site in association with a small lake near the more southerly Exeter Lake esker was unique in that it consisted of a cache of unworked chunks of quartz that were likely collected in order to make stone tools, but were never used.

065 Archaeology

Damkjar, Eric
ERD Heritage Consulting
Edmonton, AB

Reference No: 96-825 (PWNHC)
Region: IN Location: MeTp-4
Year of Research: 1996

Tsiigehtchic Ethno-Archaeology Project: Martin Zheh Excavations 1996
This is another project developed on behalf of the Gwich'in Social and Cultural Institute to look at the Martin Zheh area. This site is important because it documents seasonal Gwich'in camps and provides some evidence of how Euro-Canadian technologies were integrated into traditional Gwich'in life ways over the last 200 years. Excavations in 1996 revealed five cultural layers dating from the 1700's to the early 1900's and the artifacts exposed in each level were appropriate to what was expected. An analysis of the animal bones that were uncovered at the site will indicate the seasonality of the occupation, and may also suggest just how much, if at all, the fur trade and changing technology affected the people's camping and hunting activities at Martin Zheh.

066 Archaeology

Damkjar, Eric
ERD Heritage Consulting
Edmonton, AB

Reference No: 96-822 (PWNHC)
Region: IN Location: Mouth of the Peel River
Year of Research: 1996

Delta Science Camp 1996
The mouth of the Peel River was a traditional summer fish camp of the Teetl'it Gwich'in, and was also the location of a small Gwich'in village in the first half of the 20th century. A number of buildings are still standing on the site today. The Delta Science Camp was developed for the Gwich'in Social and Cultural Institute to survey, test, map, and record sites at the mouth of the Peel River. Students learned both traditional and scientific skills, as well as being instructed in the oral history of the area.

067 Archaeology

Fedirchuk, Gloria
Fedirchuk McCullough Associates Ltd.
Calgary, AB

Reference No: 96-838 (PWNHC)
Region: SS Location: West of Walmsley Lake
Year of Research: 1996

Kenneday Lake Diamond Project (Mountain Province)
An overview of the potential facility locations associated with the Kenneday Project (Mountain Province Mining Inc.) located west of Walmsley Lake was conducted. Specifically, a potential road route over bedrock outcrops, alternate all-weather road routes, two possible airstrip locations, and a portion of an esker which may be used for borrow material. Three sites were identified in association with the esker system. One consists of a historic site containing axe-cut spruce and a related circular stone hearth feature. The remaining two sites contain primarily stone flake discards. One of these sites is located on top of the esker, whereas the other is on the shore of a small lake adjacent to the esker.

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068 Archaeology
Friesen, Max
Archaeological Survey of Canada, Canadian Museum of Civilization
Hull, QC

Reference No: 96-826 (PWNHC)
Region: IN Location: NhTs-2, NiTs-1
Year of Research: 1996

Qilalugaq Archaeology Project
A total of 22 driftwood-and-sod houses were recorded and mapped in the earliest Inuvialuit beluga whale hunting site in the Mackenzie Delta region. The houses at Cache Point were smaller than the more recent houses from Kittigazuit and an analysis of the associated artifacts include some Thule forms which confirmed the early date for the site. The information from this site will be used to plan future fieldwork, such as how the early Inuvialuit in the Mackenzie Delta lived and what methods were used to hunt beluga whales in the distant past.

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069 Archaeology
Hart, Elisa
Inuvialuit Social Development Program
Inuvik, NT

Reference No: 96-827 (PWNHC)
Region: IN Location: Kitigaaryuit, Mackenzie Delta
Year of Research: 1996

Kitigaaryuit Cultural Mapping Project
This project was undertaken to survey and inventory the cultural features at Kitigaaryuit (Kittigazuit) and resulted in the recording of approximately 190 graves, 17 sod house ruins, and the foundations of a Hudson's Bay Company Store and related buildings. The services of a professional survey team from the Federal Department of Public Works and Services in Winnipeg were instrumental in the production of a site map of all features, and scale drawings of some of the features. Elders who had lived at Kitigaaryuit or had visited when it was occupied year round were brought to the site to talk about its history and to help identify features.

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070 Archaeology
Kaul, Richard

Aircobra Aviation Ltd.
Calgary, AB

Reference No: 96-839 (PWNHC)
Region: SA Location: Norman Wells
Year of Research: 1996

Aircobra Recovery Project
Permission was received to conduct a visual search of lakes in the vicinity of Norman Wells to locate three submerged aircraft.

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071 Archaeology
Pickard, Rod
Parks Canada, Canadian Heritage
Yellowknife, NT

Reference No: 96-829 (PWNHC)
Region: SA Location: Great Bear Lake
Year of Research: 1996

Grizzly Bear Mountain and Scented Grass Hills Archaeological Survey and Place Names Project
The survey was conducted along the shores of Great Bear Lake from Keith Arm to McVicar Arm of Grizzly Bear Mountain, and from Deerpass Bay to Douglas Bay along the shores of Scented Grass Hills. The survey consisted of the mapping and recording of 51 previously unrecorded sites, and revisiting 3 known sites. Elders from Deline were interviewed in order to gather place names, legends, stories, and information on the significance of numerous locations. The survey is one of the final stages of a research project begun in 1990 and sponsored by the Deline Band and Parks Canada in preparation for the potential designation of Grizzly Bear Mountain and Scented Grass Hills as a National Historic Site.

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072 Archaeology
Unfreed, Wendy
Fedirchuk McCullough Associates Ltd.; Kennecott Corporation Inc.
Calgary, AB

Reference No: 96-835 (PWNHC)
Region: NS Location: Lac de Gras
Year of Research: 1996

Southwest Diavik Property -- Archaeological Inventory of Potential Development Areas
A survey was conducted of the eastern shore of Lac de Gras, on the eastern mainland and two adjacent islands. A total of 172 pre-contact activity locales were identified during the study of three areas. The sites include quarries (88), lithic scatters (68), isolated lithic finds (13), multiple hearth sites (2), and one Pre-Dorset camp. In addition, one set of post-contact travois poles was identified along the shore of an inland lake. The sites tended to cluster in areas of high relief near inland lake edges or on high bedrock outcrops. The majority of the sites were on the most central of the two islands, and the Pre-Dorset camp was located on the mainland, in an eroded sandy area adjacent to the Lac de Gras shoreline. Dogrib elders and Inuit representatives from Kugluktuk examined the site and shared their knowledge about traditional lifestyles.

Department of Resources, Wildlife & Economic Development
Wildlife Research Permits

073 Wildlife
Alisauskas, Ray
Research Scientist
Canadian Wildlife Service
115 Perimeter Road
Saskatoon, SK S7N 0X4

Reference No: 934 (RWED)
Year of Research: 1996
Location: Banks Island

Productivity of Lesser Snow Geese on Banks Island
Waterfowl, Snow Geese
Lesser snow goose productivity, population, and nesting surveys were conducted, and 15 pairs of adult birds were collected. Up to 20 arctic foxes were trapped and ear tagged in order to obtain an estimate of the number of foxes frequenting snow goose nesting colony.

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074 Wildlife
Austin, Jane
Biologist
National Biological Service
8711 37 Street SE
Jamestown, ND 58401

Reference No: 927 (RWED)
Year of Research: 1996
Location: Cambridge Bay, Fort Providence, Fort Simpson, Fort Simpson, Fort Smith, Fort Resolution, Hay River, Inuvik, Iqaluit, Kugluktuk, Norman Wells, Rae Edzo, Rankin Inlet, Tulita

Delineation of Sandhill Crane Subspecies and Their Distribution
Birds, Sandhill Crane
Sandhill cranes from across the arctic were collected in order to delineate their subspecies by chromosomal analysis and measurements.

075 Wildlife

Beaulieu, Danny
Sub-Chief
Deninu Kue First Nation
General Delivery
Fort Resolution X0E 0M0

Reference No: 942 (RWED)
Year of Research: 1996
Location: Hook Lake

Hook Lake Wood Bison Recovery Project
Bison, Wood Bison
Bison calves were captured and transported to Fort Resolution to preserve the genetic integrity of the herd, and to propagate a disease-free herd.

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076 Wildlife

Bradley, Mark
Biologist
Wildlife and Fisheries
Box 390
Fort Smith, NT X0E 0P0

Reference No: 961 (RWED)
Year of Research: 1996
Location: Fort Smith area between Talston and Little Buffalo Rivers

Fort Smith Area Moose Census
Large Mammals, Moose
An aerial survey for moose was conducted in the Fort Smith area.

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077 Wildlife

Branigan, Marsha
Wolf/Bear Biologist
Renewable Resources
Bag Service 1
Inuvik, NT X0E 0T0

Reference No: 1157 (RWED)
Year of Research: 1996
Location: Richardson Mountains

Grizzly Bear Reproductive Rates and Cub Survival in the Richardson Mountains
Large Mammals, Grizzly Bears
A program was established to monitor a minimum of 15 radio-collared adult female grizzly bears over a 6 year period in order to determine reproductive parameters.

078 Wildlife

Branigan, Marsha
Wolf/Bear Biologist
Renewable Resources
Bag Service 1
Inuvik, NT X0E 0T0

Reference No: 944 (RWED)
Year of Research: 1996
Location: Mackenzie Delta

Mackenzie Delta Bear Survey/Problem Bear Project
Large Mammals, Grizzly Bears
The bear population in the delta was determined, and bears were marked using radio telemetry to establish home ranges, den sites, and seasonal habitat use.

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079 Wildlife

Bromley, Robert
Waterfowl Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 914 (RWED)
Year of Research: 1996
Location: McConnel River Bird Sanctuary

Sustainable Harvest of Snow Goose Eggs
Waterfowl, Snow Geese
Guidelines for the sustainable use of waterfowl eggs was developed.

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080 Wildlife

Bromley, Robert
Waterfowl Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 938 (RWED)
Year of Research: 1996
Location: Walker Bay

Waterfowl of the Central Arctic
Waterfowl,
Nests were sought and monitored, lemming numbers were monitored by trapping, and geese were captured for banding and marking.

081 Wildlife

Bromley, Robert
Waterfowl Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 947 (RWED)
Year of Research: 1996
Location: Loche Lake near Tulita

Distribution, Harvest Location and Survival of Northern Dabbling Ducks
Waterfowl, Ducks
Swim-in traps were baited for the purpose of banding ducks to determine distribution and recovery rates.

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082 Wildlife

Case, Ray
Grizzly Bear Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 946 (RWED)
Year of Research: 1996
Location: Central Arctic

Population Ecology of Grizzly Bears in the Slave Geological Province
Large Mammals, Grizzly Bears
Satellite telemetry collars were applied to bears in the area in order to determine long-term movements, critical habitats, resource restrictions, seasonal forage selection, and habitat use.

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083 Wildlife

Caswell, Dale
Researcher
Canadian Wildlife Service
Room 513, 269 Main Street
Winnipeg, MB R3C 1B2

Reference No: 1175 (RWED)
Year of Research: 1996
Location: West Hudson Bay and West Baffin Island

Distribution and Chronology of the Migration of Canada Geese
Waterfowl, Canada Geese
Helicopters were used to drive moulting geese into capture pens where they were banded.

084 Wildlife

Cattet, Marc
Professor
University of Saskatchewan
Vet Med Bldg, 52 Campus Drive
Department of Veterinary Pathology, Western College of Veterinary Medicine
Saskatoon, SK S7N 5B4

Reference No: 1172 (RWED)
Year of Research: 1996
Location: Churchill Manitoba

Immobilization and Anaesthesia of Polar Bears on the Western Coast of Hudson Bay with Combinations of Medetomidine and Ketamine, Zolazepam-Tiletamine and Atipamezole
Polar Bears,
Various combinations of these drugs were tested in order to determine their effectiveness in the immobilization of polar bears.

---

085 Wildlife

Chetkiewicz, Cheryl
Biologist
Gwich'in Renewable Resource Board
Box 2240
Inuvik, NT X0E 0T0

Reference No: 960 (RWED)
Year of Research: 1996
Location: South of Inuvik, Rengleng River Region

Population Size and Composition of Moose at Rengleng River Region
Large Mammals, Moose
An aerial survey for moose was conducted in order to determine their population size and composition.

---

086 Wildlife

Cluff, Dean
Regional Biologist
Renewable Resources
Box 2668
Yellowknife, NT X1A 2P9

Reference No: 1166 (RWED)
Year of Research: 1996
Location: Lac des Gras area

Analysis of Esker Use by Wolves Denning in the Central Arctic
Wolves,
A determination was made of the density, abundance, and spatial distribution of wolf dens on eskers through the use of aerial survey methods. Wolf movements in the area were also monitored.

087 Wildlife

Cooch, Evan
Professor
Simon Fraser University
Department of Biological Sciences
Burnaby, BC V5A 1S6

Reference No: 910 (RWED)
Year of Research: 1996
Location: Siksik Lake, Banks Island

Demography and Management of the Banks Island Snow Geese
Waterfowl, Snow Geese
A determination was made of the annual productivity of snow geese, mortality rates, distribution, and movement patterns. The possibility of Banks Island being a reservoir for avian cholera was also assessed, and geese were also banded and collared.

---

088 Wildlife

Dickson, Lynne
Biologist
Canadian Wildlife Service
Rm 210 4999 89 Ave
Edmonton, AB T6B 2X3

Reference No: 930 (RWED)
Year of Research: 1996
Location: Holman

Eider Migration and Harvest at Holman
Waterfowl, Eiders
The abundance and composition of the eider migration near Holman was determined, as were the harvest characteristics.

---

089 Wildlife

Dickson, Lynne
Biologist
Canadian Wildlife Service
Rm 210 4999 - 89 Ave
Edmonton, AB T6B 2X3

Reference No: 929 (RWED)
Year of Research: 1996
Location: Coronation Gulf, Queen Maud Gulf, Dolphin Strait, Union Strait

Distribution and Abundance of Pacific Eiders in the Central Arctic
Waterfowl, Eiders
The size and distribution of the breeding population of eiders in the central arctic was determined by aerial survey and nest searching.

090 Wildlife

Downes, Connie
Coordinator
Canadian Wildlife Service
National Wildlife Research Centre
100 Gamelin Blvd
Hull, QC K1A 0H3

Reference No: 1170 (RWED)
Year of Research: 1996
Location: Yellowknife, Inuvik, Fort Smith

North American Breeding Bird Survey
Birds, Breeding birds
The populations of breeding songbirds were monitored by ground based survey methods.

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091 Wildlife

Elkin, Brett
Wildlife Disease Specialist
Wildlife and Fisheries
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 958 (RWED)
Year of Research: 1996
Location: Island on Pellatt Lake

Determine the Health of Stranded Muskoxen
Muskoxen,
Up to 18 muskoxen reported starving on an island in Pellatt Lake were shot and/or captured and released. Biological samples were collected from all animals killed to determine condition and, where possible, the edible parts of each carcass were saved.

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092 Wildlife

Englander, Sandra
Researcher
Royal Military College of Canada
Environmental Sciences Group
Department of Chemistry and Chemical Engineering
Kingston, ON K7K 5L0

Reference No: 1173 (RWED)
Year of Research: 1996
Location: Cape Hooper, Clyde River, Padloping Island

Environmental Assessment of Cape Hooper, Clyde River, and Padloping Island
Small Mammals, Lemmings
Lemmings were trapped at each site and shipped back for analyses.

093 Wildlife

Engstrom, Mark
Researcher
Royal Ontario Museum
100 Queens Park
Toronto, ON M5S 2C6

Reference No: 1171 (RWED)
Year of Research: 1996
Location: Arviat, Rankin Inlet, Resolute Bay

Fertility Assessment of Collared Lemmings in North America
Small Mammals, Lemmings
Up to 40 collared lemmings were collected from each location to add to the breeding colony in order to determine the degree of infertility.

094 Wildlife

Ferguson, Mike
Regional Biologist
Renewable Resources
General Delivery
Government of the Northwest Territories
Pond Inlet, NT X0A 0S0

Reference No: 924 (RWED)
Year of Research: 1996
Location: Near Kimmirut

Caribou Herd Condition
Caribou,
Specimens and information on snow melt and range were collected in order to determine herd condition. Five hundred caribou were sexed and aged, and any carcasses found were necropsied.

095 Wildlife

Gaston, Anthony
Research Scientist
Canadian Wildlife Service
100 Gamelin Boulevard
Hull, QC K1A 0H3

Reference No: 915 (RWED)
Year of Research: 1996
Location: Coats Island, Coral Harbour

Canadian Wildlife Service Seabird Monitoring Program
Birds, Seabirds
The abundance of Thick-billed murres was determined, and the population genetics and dispersal and survival of gulls was also studied.

096 Wildlife

Gates, Cormack
Bison Biologist
Renewable Resources
Box 390
Fort Smith, NT X0E 0P0

Reference No: 901 (RWED)
Year of Research: 1996
Location: Slave River Lowlands

Slave River Lowlands Bison Populations Studies
Bison,
An aerial census of the Slave River lowlands bison herd was made in order to measure composition and abundance.

---

097 Wildlife

Gates, Cormack
Bison Biologist
Renewable Resources
Box 390
Fort Smith, NT X0E 0P0

Reference No: 905 (RWED)
Year of Research: 1996
Location: Fort Providence area

Anthrax Research and Surveys of the Mackenzie Bison Population
Bison, Wood Bison
An aerial census of the Mackenzie bison sanctuary was conducted in order to determine herd composition, test the effectiveness of vaccine, and to determine anthrax in soil using bioassay.

---

098 Wildlife

Gauthier, Gilles
Professor
University of Laval
Department of Biology
Ste-Foy, QC G1K 7P4

Reference No: 913 (RWED)
Year of Research: 1996
Location: Bylot Island

Breeding Ecology of Greater Snow Geese
Waterfowl, Snow Geese
The productivity, movement, success, parasites, metabolic rates of chicks, and mortality factors of snow geese were all monitored. Nutrient cycles were determined from faeces, as well as the effects of goose grazing and lemming abundance.

099 Wildlife

Gilchrist, Grant
Sea-bird Biologist
Canadian Wildlife Service
600-5102 50 Ave
Yellowknife, NT X1A 2N5

Reference No: 1162 (RWED)
Year of Research: 1996
Location: Nirjutiqavvik National Wildlife area, Coburg Island

Demography of Thick-billed Murres & Black-legged Kittiwakes Coburg Island
Birds, Sea Birds
A photo mosaic of the entire thick-billed murre and black-legged kittiwake colony was completed and birds were counted on monitoring plots using scopes.

---

100 Wildlife

Gilchrist, Grant
Sea-bird Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1158 (RWED)
Year of Research: 1996
Location: East Bay, Southampton Island

Population Studies of King and Common Eiders in East Bay
Waterfowl, Eiders
Birds were banded while nesting in order to determine adult survival and philopatry and to provide information on the reproductive ecology of eiders.

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101 Wildlife

Gilg, Olivier
Researcher
Centre D'Études et Documentation sur les Milieux Polaires
#77 10, place de la Fontaine
d'Ouche
Dijon, France 21000

Reference No: 1161 (RWED)
Year of Research: 1996
Location: Mount Pelly area, Cambridge Bay

1996 Expedition of the Groupe de Recherches en Écologie Arctique
Small Mammals, Lemmings
The winter ecology of the collared lemming was studied and the CEDMP slide bank was completed with nearctic species.

102 Wildlife

Gullickson, Doug
Park Warden
Canada Parks Service
Box 348
Fort Simpson, NT X0E 0N0

Reference No: 917 (RWED)
Year of Research: 1996
Location: Nahanni national park

South Nahanni Woodland Caribou Study
Caribou, Woodland Caribou
The seasonal habitat use, migration patterns, critical habitats, population, and composition was documented by deploying radio collars and conducting ground and aerial surveys.

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103 Wildlife

Gunn, Anne
Caribou Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 941 (RWED)
Year of Research: 1996
Location: Bathurst calving ground

Photographic Census of the Bathurst Calving Ground
Caribou,
A photographic census of the Bathurst caribou calving grounds was conducted.

---

104 Wildlife

Gunn, Anne
Caribou Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 1152 (RWED)
Year of Research: 1996
Location: Prince of Wales Island, Somerset Island, Peel Sound

Prince of Wales Island Peary Caribou Survey
Caribou, Peary Caribou
A helicopter was used to survey Prince of Wales Island, Somerset Island, Peel Sound, and Franklin Strait for Peary Caribou.

105 Wildlife

Gunn, Anne
Caribou Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 1153 (RWED)
Year of Research: 1996
Location: Bathurst caribou range

Movements of the Bathurst Caribou Herd
Caribou,
A measurement was made of the daily movements of Bathurst caribou on the calving grounds, and weekly movements elsewhere using 15 satellite collars which were placed on cows.

---

106 Wildlife

Gunn, Anne
Caribou Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 912 (RWED)
Year of Research: 1996
Location: Bathurst Island

Movements of Bathurst Island Caribou
Caribou, Peary Caribou
Data was acquired on the daily movements of Bathurst Island Peary caribou from the satellite collars put on in 1995.

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107 Wildlife

Gunn, Anne
Caribou Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 948 (RWED)
Year of Research: 1996
Location: Lupin Mine site

Tailing Pond Use by Caribou at Lupin Mine
Caribou,
Ground survey methods were used to determine the use of tailing ponds by caribou at the Lupin Mine site. The usefulness of traditional deterrents was also assessed.

108 Wildlife

Harron, Donald
Environmental Scientist
Tetres Consultants
#603-386 Broadway
Winnipeg, MB R3C 3R6

Reference No: 1169 (RWED)
Year of Research: 1996
Location: Hood River area

Baseline Biophysical Characteristics of the Hood River Eskers
Animals, Mammals, Birds
Reconnaissance level terrestrial surveys to document bird, mammal, and plant use of eskers in the Hood River area.

---

109 Wildlife

Heinrich, Bernd
Professor
University of Vermont
Burlington, VT 05405

Reference No: 909 (RWED)
Year of Research: 1996
Location: Iqaluit, Hall Beach

Raven Foraging Behaviour
Birds, Raven
The interaction between hunters and ravens was studied by following hunters and baiting ravens.

---

110 Wildlife

Hines, Jim
Waterfowl Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1159 (RWED)
Year of Research: 1996
Location: Tuktoyaktuk peninsula, Anderson river area

Distribution, Abundance, and Survival of Pacific Brant from the Mainland of the Inuvialuit Settlement Region
Waterfowl, Pacific Brant
The distribution of pacific brant was established by flying aerial surveys. Survival was studied by banding a sample of brant when they were moulting by using helicopter drives.

111 Wildlife

Hubert, Ben
Researcher
Hubert and Associates Ltd.
Box 277
Yellowknife, NT X1A 2N2

Reference No: 954 (RWED)
Year of Research: 1996
Location: Near Lupin mine at Jericho, Ulu exploration sites

Wildlife Abundance and Distribution Near Jericho and Ulu Exploration Sites
Mammals, Birds
A combination of aerial and ground surveys were used to determine the abundance and distribution of wildlife near the Jericho and Ulu exploration sites.

---

112 Wildlife

Hubert, Ben
Researcher
Hubert and Associates Ltd.
Box 277
Yellowknife, NT X1A 2N2

Reference No: 1167 (RWED)
Year of Research: 1996
Location: Victoria Island

Victoria Island Caribou Radio Telemetry
Caribou,
The seasonal distribution of female caribou on western Victoria Island was monitored in relation to areas of interest of mining exploration. Caribou were captured using a net gun and a satellite telemetry collar was attached

---

113 Wildlife

Johnston, Victoria
Habitat Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 937 (RWED)
Year of Research: 1996
Location: Prince Charles Island

Bird Studies in the Northern Foxes Basin
Birds,
Ground and aerial counts were conducted in order to determine the distribution and abundance of breeding birds on Prince Charles Island.

114 Wildlife

Kalluk, Isaac
President
Resolute Hunters and Trappers Association
Box 61
Resolute Bay, NT X0A 0V0

Reference No: 821 (RWED)
Year of Research: 1996
Location: Resolute Bay

Kill of Muskox on Cornwallis Island
Muskoxen,
Ten muskox from Cornwallis Island were killed to determine their condition.

---

115 Wildlife

Kay, Dave
Biologist
Ducks Unlimited Canada
Box 1438
Yellowknife, NT X1A 2P1

Reference No: 931 (RWED)
Year of Research: 1996
Location: Brakett Lake

Distribution, Abundance and Reproductive Success of Breeding Waterfowl
Waterfowl, Ducks, Geese, Swan
The distribution, abundance, and reproductive success of breeding waterfowl was determined by aerial and ground based surveys.

---

116 Wildlife

Kershaw, G. P.
Professor
Department of Earth and Atmospheric Science
University of Alberta
Edmonton, AB T6G 2E3

Reference No: 1155 (RWED)
Year of Research: 1996
Location: North of Tulita

Studies of the Environmental Effects of Disturbance in the Subarctic
Small Mammals, Vole, Shrew
A mark and recapture project was done to quantify impacts of controlled surface disturbances, to evaluate test reclamation treatments, and to develop models to predict the results of both.

117 Wildlife

Kershaw, G. P.
Professor
Department of Earth and Atmospheric Science
University of Alberta
Edmonton, AB T6G 2E3

Reference No: 1168 (RWED)
Year of Research: 1996
Location: Mackenzie Mountain barrens at Macmillan Pass

Small Mammal Habitat Selection in Alpine Tundra of the Western Mackenzie Mountains
Small Mammals, Vole, Lemming
Small mammals were snap trapped in order to determine the species present and the population characteristics of each species.

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118 Wildlife

Krebs, Charles
Professor
University of British Columbia
Department of Zoology
6270 University Blvd.
Vancouver, BC V6T 1Z4

Reference No: 932 (RWED)
Year of Research: 1996
Location: Inuvik, Dew line sites across the arctic (Anderson River, Breakwater Island, Cockburn Island, Hope Bay, Horton River, Hurd Island, Jameson Islands, Nicholson Point, Northstar Harbour, Tuktoyaktuk, Walker Bay, Wilmot Island)

Lemming Population Fluctuations in the Eastern and Western Arctic
Small Mammals, Lemming
The timing of lemming cycles in the arctic was studied by snap trapping and live trapping, marking, and attempting to recapture.

---

119 Wildlife

Larter, Nicholas
Muskox/Caribou Biologist
Renewable Resources
Bag Service 1
Inuvik, NT X0E 0T0

Reference No: 921 (RWED)
Year of Research: 1996
Location: Banks Island

Banks Island Range Study
Muskox,
The diet and amount of overlap of Banks Island Caribou and Muskox was determined, as well as the impact of grazing, seasonal forage quality changes, and extent of types of range. A correlation was also made of non-invasive indices of health to actual indices of health.

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120 Wildlife

Latour, Paul
Habitat Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 925 (RWED)
Year of Research: 1996
Location: Mills Lake on the Mackenzie River

Assessment of Mills Lake as a Staging Area for Migrating Geese, Swans, and Shorebirds
Waterfowl, Birds
Regular aerial surveys were flown over Mills Lake to determine the abundance and distribution of staging waterfowl and shorebirds, and to evaluate the importance of Mills Lake as a staging area for western arctic populations of geese.

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121 Wildlife
Latour, Paul
Habitat Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 940 (RWED)
Year of Research: 1996
Location: Creswell Bay

Assessment of Creswell Bay for Protected Status
Birds, Shorebirds
Shorebird count plots were used on land classification units (TM) to determine population status.

---

122 Wildlife
Lee, John
Wolverine Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 903 (RWED)
Year of Research: 1996
Location: Daring Lake

Wolverine Ecology in the Central Arctic
Furbearers, Wolverine
A determination was made of wolverine home ranges, locations of dens, and the number of young produced. Harvest information was collected, tracks were monitored to determine road impacts, and wolverine were radio collared.

123 Wildlife

Martin, Jean-Louis
Centre d'Écologie Fonctionnelle et Evolutive
BP5051
Montpellier Cedex, France 34033

Reference No: 936 (RWED)
Year of Research: 1996
Location: Prince Charles Island

Bird Studies in the Northern Foxes Basin
Birds, Shorebirds
The distribution and abundance of shorebirds on Prince Charles Island was determined through the use of survey plots.

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124 Wildlife

Mech, David
Biologist
U.S. Fish and Wildlife Service
1992 Folwell Ave.
St. Paul, MN 55108

Reference No: 933 (RWED)
Year of Research: 1996
Location: Eureka

Behavioural Ecology of an Arctic Wolf Pack
Wolf,
The longterm productivity and survival of arctic wolf packs was determined through direct observation and photography.

---

125 Wildlife

Morantz, David
RESCAN Environmental Services
1111 West Hastings street
Vancouver, BC V6E 2J3

Reference No: 928 (RWED)
Year of Research: 1996
Location: Hope Bay area

Hope Bay Belt Project Baseline Environmental Studies
Animals, all species
Baseline studies on all species were continued using a series of aerial and ground based survey methods, as well as snap trapping small mammals.

126 Wildlife

Morantz, David
RESCAN Environmental Services
1111 West Hastings Street
Vancouver, BC V6E 2J3

Reference No: 926 (RWED)
Year of Research: 1996
Location: Lac de Gras

Northwest Territories Diamonds Project
Animals, all species
Baseline data on all species in the Lac de Gras area continued to be gathered. Visual observations were made with fixed wing aircraft, helicopters, as well as ground surveys, radio telemetry, small mammal trapping, and so forth.

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127 Wildlife

Morrison, R.I.G.
Biologist
Canadian Wildlife Service
100 Gamelin Boulevard
Hull, QC K1A 0H3

Reference No: 1160 (RWED)
Year of Research: 1996
Location: Alert, Ellesmere Island

Studies of the Migration, Ecophysiology and Energetics of High Arctic Shorebirds Near Alert
Birds, Shorebirds
Shorebirds were surveyed, radio tagged, and observed in order to study their ecophysiology.

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128 Wildlife

Mueller, Fritz
Researcher
Box 1563
Yellowknife, NT X1A 2P3

Reference No: 956 (RWED)
Year of Research: 1996
Location: Southeast of Omingmaktok (Bathurst Inlet)

Vegetation and Habitat of the Bathurst Calving Area
Caribou,
To document The distribution and abundance of plant species on and near the calving grounds of the Bathurst Caribou herd were documented, and caribou behaviour was observed.

129 Wildlife

Mulders, Robert
Regional Biologist
Renewable Resources
Box 120
Arviat, NT X0C 0E0

Reference No: 918 (RWED)
Year of Research: 1996
Location: Qamanirjuaq caribou range

Qaminirjuaq Caribou Spring Composition and Satellite Collaring
Caribou,
Aerial classification counts were conducted and three refurbished satellite collars were deployed on adult female caribou.

130 Wildlife

Mulders, Robert
Regional Biologist
Renewable Resources
Box 120
Arviat, NT X0C 0E0

Reference No: 904 (RWED)
Year of Research: 1996
Location: Southampton Island

Southampton Island Caribou Study
Caribou,
Aerial surveys and ground surveys were conducted in order to determine herd composition. Dead caribou were opportunistically sampled to determine body condition.

131 Wildlife

Mulders, Robert
Biologist
Wildlife and Fisheries
Box 120
Arviat, NT X0C 0E0

Reference No: 962 (RWED)
Year of Research: 1996
Location: Southampton Island

Caribou Collection and Necropsy
Caribou,
Up to 60 caribou on Southampton Island were collected and necropsied.

132 Wildlife

Mulders, Robert
Regional Biologist
Renewable Resources
Government of Northwest Territories
Arviat, NT X0C 0E0

Reference No: 949 (RWED)
Year of Research: 1996
Location: Near Arviat

Pesticide Contamination in Peregrine Falcons
Raptors, Peregrine Falcons
Peregrine falcons were captured and blood and tissue samples taken to determine levels of contamination.

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133 Wildlife

Nagy, John
Supervisor Wildlife Management
Renewable Resources
Bag Service 1
Inuvik, NT X0E 0T0

Reference No: 907 (RWED)
Year of Research: 1996
Location: Bluenose caribou herd range

Bluenose Caribou Herd Range Use
Caribou,
The seasonal ranges and movements of the Bluenose Caribou herd, as well as their calving grounds, were defined by deploying satellite collars.

---

134 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of the Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 822 (RWED)
Year of Research: 1996
Location: Cambridge Bay, Kugluktuk, Holman, Gjoa Haven, Pelly Bay

Body Condition of Commercially Harvested Muskoxen and Caribou
Muskoxen, Caribou
Hunter-killed muskoxen were sampled to determine standard indices of body condition.

135 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of the Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 953 (RWED)
Year of Research: 1996
Location: Queen Maud Gulf Area

Distribution and Abundance of Muskoxen in the Queen Maud Gulf Area
Muskoxen,
The population of muskoxen in the Queen Maud Gulf mainland area was determined by flying strip transects.

---

136 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of the Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 922 (RWED)
Year of Research: 1996
Location: Elu Inlet area of Bathurst Inlet

Satellite collars on Queen Maud Gulf Caribou
Caribou,
Satellite collars were deployed on female caribou adults to determine their seasonal movements and the herd to which they belonged.

---

137 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 1154 (RWED)
Year of Research: 1996
Location: Southern Victoria Island and adjacent mainland coasts

Distribution of Caribou Calving on Southern Victoria Island
Caribou, Peary Caribou
Radio collared caribou were relocated by aerial survey to determine their calving areas.

138 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 1174 (RWED)
Year of Research: 1996
Location: Queen Maud Gulf area

Distribution and Abundance of Muskoxen in the Queen Maud Gulf Area
Muskoxen,
The distribution and abundance of muskoxen in the Queen Maud Gulf area was determined using strip aerial transects.

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139 Wildlife

Nishi, John
Regional Biologist
Renewable Resources
Government of Northwest Territories
Kugluktuk, NT X0E 0E0

Reference No: 955 (RWED)
Year of Research: 1996
Location: Basil Bay area

Distribution and Abundance of Terrestrial Gastropods Northwest of Kugluktuk
Animals, Gastropods
A determination was made of the distribution and abundance of gastropods (the intermediate host of a Muskoxen lungworm) in the Basil Bay area 30 km northwest of Kugluktuk.

---

140 Wildlife

Penner, Fred
Biologist
Penner and Associates Ltd.
3-52059
Range Road 220
Sherwood Park, AB T8E 1B9

Reference No: 945 (RWED)
Year of Research: 1996
Location: Diavik Diamond Project

Baseline Environmental Information for the Diavik Project
Animals, all species
Baseline environmental information for the Diavik projects Environmental Impact Assessment was compiled using a series of ground and aerial survey methods.

141 Wildlife

Poole, Kim
Furbearer Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 823 (RWED)
Year of Research: 1996
Location: Calais Lake, Mackenzie Bison Sanctuary

Mackenzie Bison Sanctuary Lynx Study
Furbearers, Lynx
The home range size and movement patterns of lynx was examined and a determination was made of their reproduction, survival, and mortality with regards to snowshoe hare densities. Lynx were also collared and tracked using radio telemetry.

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142 Wildlife

Poole, Kim
Furbearer Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 824 (RWED)
Year of Research: 1996
Location: Fort Simpson, Fort Providence, Fort Good Hope, Deline, Fort Smith, Fort Resolution

Lynx and Marten Carcass Collection
Furbearers, Lynx, Marten
The age, sex, and reproductive condition of lynx and marten was determined.

---

143 Wildlife

Poole, Kim
Furbearer Biologist
Wildlife and Fisheries
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 959 (RWED)
Year of Research: 1996
Location: Near Dettah

Beaver Survey Near Dettah
Furbearer, Beaver
An aerial survey of ponds near Dettah was conducted in order to determine the abundance of beavers. This information was supplied to the Yellowknives Dene for harvesting information.

144 Wildlife

Poole, Kim
Furbearer Biologist
Renewable Resources
600 5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 825 (RWED)
Year of Research: 1996
Location: Fort Providence, Fort Simpson, Fort Smith, Inuvik, Mackenzie Bison Sanctuary, Norman Wells, Pine Point, Yellowknife

Snowshoe Hare Population Monitoring
Furbearers, Snowshoe Hare
Pellet counts were made to determine population index of snowshoe hare.

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145 Wildlife

Ramsay, Malcolm
Professor
University of Saskatchewan
112 Science Place
Saskatoon, SK S7N 5E2

Reference No: 920 (RWED)
Year of Research: 1996
Location: Viscount Melville Sound, Barrow Strait, Wellington Channel, Lancaster

Kinetics of Organochlorine Contaminants in Polar Bears and Their Cubs
Polar Bears,
Bears were captured, radio marked, and recaptured in order to determine the effects of PCB/DDE on living bears.

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146 Wildlife

Reimer, Kenneth
Royal Military College of Canada
Environmental Science Group
Department of Chemistry and Chemical Engineering
Kingston, ON K7L 3W9

Reference No: 1163 (RWED)
Year of Research: 1996
Location: Cape Parry, Tuktoyaktuk

Environmental Assessment of Cape Parry and Tuktoyaktuk Solid Waste Disposal Area
Small Mammals, Lemming
Lemmings were collected using snap traps in order to analyse them for contaminants.

147 Wildlife

Roach, Pat
Area Studies Scientist
Indian and Northern Affairs Ca
355-300 Main Street
Whitehorse, YT Y1A 2B5

Reference No: 906 (RWED)
Year of Research: 1996
Location: Holman, Paulatuk, Sachs Harbour

Giardia Analysis of Polar Bear Faeces
Polar Bear,
Faeces were collected from bears harvested by hunters and analysed for the parasite giardia.

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148 Wildlife

Shank, Christopher
Wildlife Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 1164 (RWED)
Year of Research: 1996
Location: Hope Bay area

Monitoring Nesting Success of Hope Bay Gyrfalcons
Raptors, Gyrfalcons
The population of gyrfalcons and other raptors in the area was established and young gyrfalcons were banded and measured.

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149 Wildlife

Shank, Christopher
Wildlife Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 1165 (RWED)
Year of Research: 1996
Location: near Kugluktuk

Monitoring Nesting Success of Kugluktuk Gyrfalcons
Raptors, Gyrfalcons
The number of nesting pairs of raptors was determined and young gyrfalcons were banded and measured

150 Wildlife

Shank, Christopher
Wildlife Biologist
Renewable Resources
600-5102 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 952 (RWED)
Year of Research: 1996
Location: Arviat, Baker Lake, Cambridge Bay, Coral Harbour, Daring Lake, Fort Simpson, Fort Smith, Kugluktuk, Norman Wells, Pond Inlet, Rankin Inlet, Repulse Bay, Yellowknife

Monitoring Abundance of Small Mammals
Small Mammals,
The populations of small mammals across the Northwest Territories were monitored using snap traps.

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151 Wildlife

Solberg, John
Biologist
US Fish and Wildlife Service
Box 1887
Klamath Falls, OR 97601

Reference No: 935 (RWED)
Year of Research: 1996
Location: Mills Lake

Cooperative Waterfowl Banding Program
Waterfowl,
Traps were baited to capture mallards, pintails, and green-winged teal for banding.

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152 Wildlife

Stirling, Ian
Research Scientist
Canadian Wildlife Service
5320 122 St
Edmonton, AB T6H 3S5

Reference No: 1156 (RWED)
Year of Research: 1996
Location: Radstock Bay, South West Devon Island

The Behaviour of Undisturbed Polar Bears
Polar Bears,
A determination was made of the undisturbed behaviour of polar bears by observing through spotting scopes from a distance.

153 Wildlife

Taylor, Mitch
Polar Bear Biologist
Renewable Resources
Bag 1000
Iqaluit, NT X0A 0H0

Reference No: 919 (RWED)
Year of Research: 1996
Location: Baffin Region

Inventory of High Arctic/Baffin Bay Polar Bear Population
Polar Bear,
As many bears as possible were marked, satellite collars were removed, and the use of traditional methods of conducting polar bear research was documented. Following immobilisation, bears were ear tagged, lip tattooed, and painted.

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154 Wildlife

van de Groot, Peter J.
Queens University
Department of Biology
Kingston, ON K7L 3N6

Reference No: 911 (RWED)
Year of Research: 1996
Location: Bathurst Island, Boothia Peninsula, Devon Island, Ellesmere Island, Prince of Wales Island, Victoria Island

Microsatellite Variation in Muskox
Muskoxen,
Muskox tissue samples from across the Territories were analysed for a genetic study.

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155 Wildlife

Veitch, Alasdair
Regional Biologist
Renewable Resources
Box 130
Norman Wells X0E 0V0

Reference No: 923 (RWED)
Year of Research: 1996
Location: Katherine Creek

Demography of Dall's Sheep in the Mackenzie Mountains
Large Mammals, Dall's Sheep
A determination was made of the proportion of population that consists of harvestable rams. Lamb production was assessed, and important lambing areas were identified through ground surveys.

156 Wildlife

Veitch, Alasdair
Regional Biologist
Renewable Resources
Box 130
Norman Wells, NT X0E 0V0

Reference No: 902 (RWED)
Year of Research: 1996
Location: Turton Lake

Juvenile Dispersal of Martens in the Boreal Forest of the Northwest Territories
Furbearers, Marten
A determination was made of the location of dens, the dispersal of juveniles, population trends, and Traditional Environmental Knowledge concerning martens. Marten were also radio collared.

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157 Wildlife

Voelzer, James
Flyway Biologist
U.S. Fish and Wildlife Service
911 NE 11th Ave
Portland, OR 97232-4141

Reference No: 916 (RWED)
Year of Research: 1996
Location: Mackenzie River Drainage

Cooperative United States/Canada Waterfowl Population Surveys
Waterfowl, Ducks, Geese
The size and species composition of the breeding population of ducks and other waterfowl in the Mackenzie River drainage was determined by aerial survey.

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158 Wildlife

Welch, Harold
Department of Fisheries and Oceans
501 University Crescent
Winnipeg, MB R3T 2N6

Reference No: 951 (RWED)
Year of Research: 1996
Location: Browne Island near Resolute Bay

Annual Census of Black-legged Kittiwake Colony Near Browne Island
Birds, Black-legged Kittiwakes
An annual count of black-legged kittiwakes was conducted, and six adults were collected for contaminant and stable isotope analysis. The accumulated carcasses from natural kittiwake deaths were also collected.

159 Wildlife

Wilson, Deborah
University of British Columbia
6270 University Blvd
Vancouver, BC V6T 1Z4

Reference No: 939 (RWED)
Year of Research: 1996
Location: Walker Bay

The Effect of Predation on the Lemming Cycle
Small Mammals, Lemming
The effects of predators on the lemming cycle were determined by trapping and marking lemmings, and by marking arctic fox.

Department of Fisheries and Oceans
Fisheries Scientific Licences

160 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-009 (DFO)
Region: IN Location: Mackenzie Delta, Beaufort coast
Year of Research: 1996

Mackenzie/Beaufort Inconnu Studies
A determination was made of the importance of various habitats within the study area for various life history aspects of inconnu and other associated species.

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161 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-010 (DFO)
Region: IN Location: Rat River
Year of Research: 1996

Rat River Charr Studies
The use of known and potential spawning areas by Dolly Varden charr in the Rat River was verified and its spawning population was monitored.

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162 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-011 (DFO)
Region: IN Location: Big Fish River
Year of Research: 1996

Big Fish River Charr Studies
Artificial egg incubation devices (redds) were installed in the Big Fish River and these were inoculated with the fertilized eggs of Dolly Varden charr. The spawning population of Dolly Varden charr was also monitored.

163 Fisheries

Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-012 (DFO)
Region: IN Location: Husky Lake
Year of Research: 1996

Stock Assessment - Husky Lake
A general assessment of the status and utilization of the fish population of Husky Lake was conducted, as well as a general limnological and habitat survey of the lake.

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164 Fisheries

Ferguson, Brian
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-003 (DFO)
Region: IN Location: Big Fish River
Year of Research: 1996

Big Fish River Charr Studies
Newly emerged charr were collected for stomach analysis to determine if early emerging charr suffer increased mortality due to food shortages.

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165 Fisheries

Ferguson, Brian
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-004 (DFO)
Region: IN Location: Rat River
Year of Research: 1996

Rat River Charr Studies
The study was designed to locate spawning areas in the Rat River, as well as to collect samples of resident charr for genetic analysis. The overwintering potential of pools was determined and other overwintering habitats were located.

166 Fisheries

Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-014 (DFO)
Region: IN Location: Aklavik Traditional Trail
Year of Research: 1996

Aklavik Area Stock Assessment/Habitat Utilization
A determination was made of the abundance and diversity of fish from waterbodies adjacent to the Aklavik Traditional Trail.

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167 Fisheries

Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-015 (DFO)
Region: IN Location: Rat River
Year of Research: 1996

Rat River/Fish Creek Charr Studies
A Petersen estimate of the spawning population of Dolly Varden charr within the Rat River was obtained. Information on the size, sex, and maturity of these fish were also gathered, and up to 500 Floy-type tags were applied for mark-recapture study.

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168 Fisheries

Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-96/97-016 (DFO)
Region: IN Location: Hornaday River
Year of Research: 1996

Hornaday River Charr Studies
The study was designed to locate the spawning areas of Arctic charr in the Hornaday River through the study of the distribution of the young of the year charr. Another objective of this study was to observe the movements of the Hornaday River charr over the course of their annual cycle. Th results will be incorporated into the development of a fishing plan for the Hornaday River in cooperation with the Paulatuk Hunters and Trappers Committee.

169 Fisheries

Healy, Maria
Department of Fisheries and Oceans
Box 2310
Yellowknife, NT X1A 2P7

Reference No: SLI-96/97-005 (DFO)
Region: ALL Location: NWT West all areas
Year of Research: 1996

General Program Requirements
This is a general license that is issued to an area biologist to collect fish in the course of their general program. It is neither project nor area specific.

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170 Fisheries

Low, George
Department of Fisheries and Oceans
42043 Mackenzie Highway
Hay River, NT X0E 0R9

Reference No: SLI-96/97-006 (DFO)
Region: ALL Location: NWT West all areas
Year of Research: 1996

General Program Requirements
This is a general license that is issued to an area biologist to collect fish in the course of their general program. It is neither project nor area specific.

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171 Fisheries

Tallman, Ross
Arctic Fisheries Research, Department of Fisheries and Oceans
Freshwater Institute
501 University Cres.
Winnipeg, MB R3T 2N6

Reference No: SLI-96/97-017 (DFO)
Region: IN, SS Location: Arctic Red River, Peel River, Slave River
Year of Research: 1996

Ontogenic Comparisons Between Two Populations of Young-of-the-Year Inconnu
Developmental variation was compared between 25 families of two distinct populations of inconnu. Analyses were conducted to determine if developmental differences were genetically or environmentally driven. Eggs and sperm were collected to establish the 25 genetic families from each area, and they compared the growth of the young-of-the-year inconnu from the two different stocks. The demographic characteristics and life history of inconnu within the Slave River were determined, as well as a suite of traits that will assist in differentiating fish stocks that enter the Mackenzie River inconnu fishery. The inter-population variability in population traits such as growth, fecundity, age at maturity and mortality were also established.

1997 Research Projects

Aurora Research Institute
Science Licences

Biology

172 Biology

Alexander, Martin E.
Northern Forestry Centre
5320-122 St.
Edmonton, AB T6H 3S5

Reference No: 12 402 597 (ARI)
Region: DC Location: 50 km north of Fort Providence
Year of Research: 1997
Other members of team: 40 fire scientists from 4 countries - Canada, Russia, USA, and Germany.

International Crown Fire Modelling Experiment (ICFME), Ft. Providence, NWT
In June 1997, after a few small test fires, the first full-scale crown fire was ignited July 1 (Plot A), followed by two additional successful high-intensity crown fires on July 4 (Plot 5) and July 9 (Plot 6). Experimental fires were attempted on several other days but were cancelled due to lack of suitable wind speeds, and/or wind direction. The "burning window" for the first phase (1997) of the ICFME effectively ended with the heavy rains beginning July 10. The three experimental fires were the most complex heavily-instrumented experimental crown fires conducted anywhere in the world to date.

173 Biology

Gillespie, Lynn
Research Division
Canadian Museum of Nature
P.O. Box 3443, Station D
Ottawa, ON K1P 6P4

Reference No: 12 402 572 (ARI)
Region: IN Location: Tuktoyaktuk, Nicholson Island, Kitigazuit, Richards Island, Anderson River Delta, Cape Dalhousie
Year of Research: 1997
Other members of team: Laurie Consaul

Hybridization and Genetic Variation in Arctic Grasses: Molecular, Morphological and Ecological Evidence.
Poa and *Puccinellia* are particularly difficult groups of grasses to identify and understand in the Canadian Arctic. Species occur in disturbed sites, such as river banks, erosion gullies, near animal burrows, and also near human settlements. They are an important indicator species of disturbed environments. We are using DNA techniques to examine genetic variation within and among species of Arctic *Poa* and *Puccinellia*. Collections of live plants and voucher herbarium specimens were made from several sites in the western Arctic (Tuktoyaktuk, Nicholson Island, Kittigazuit, and Richards Island) during the summer 1997 field season. Ecological notes on habitat, abundance, plant community, and reproductive biology were taken for each population sampled. The plants are being analysed in the lab using the technique of DNA restriction site analysis. The variation in DNA among different populations and species throughout the Canadian Arctic will be analysed to study species relationships and hybridization events. Numerous photographs of arctic flowering plants were taken in their natural habitat. These are being used for our long term project, a computer based identification guide to arctic flowering plants.

174 Biology

Hebert, Paul
Department of Zoology
University of Guelph
Guelph, ON N1G 2W1

Reference No: 12 402 333 (ARI)
Region: IN Location: Ponds & lakes - Mackenzie Delta area on Inuvialuit Private Lands near Aklavik, Inuvik, Tuktoyaktuk
Year of Research: 1997
Other members of team: Chad Rowe, Andrea Cox, Jonathan Witt, Klaus Schwenk

Genetic Diversity in the Biota of Arctic Lakes
Our research in 1997 involved a broad survey of zooplankton communities from 113 aquatic habitats, spanning 300 km from the NWT-Yukon border east to the Crossley Lakes Region. Over 21 zooplankton species, cyclopoid, calanoid copepods, and cladocerans dominated the fauna. Genetic analyses were conducted in the field on two of the species, while examination of the remaining taxa is in progress at the University of Guelph. Technical summaries of this genetic data will be made available upon their completion. Future plans include expanding the geographic range of the study in order to provide more detailed information about the biogeography and genetic diversity of arctic freshwater zooplankton communities.

175 Biology

Macdonald, Gord
Golder Associates Ltd.
940-6th Ave. S.W.
Calgary, AB T2P 3T1

Reference No: 12 402 598 (ARI)
Region: NS Location: Damoti Lake
Year of Research: 1997
Other members of team: Derek Melton, Jim Cassie, Mark Digel, Matt Kennedy, Michael Raine, Wayne Bessie, and Dogrib HTA representative

Damoti Lake Gold Project Environmental/Engineering Baseline Study.
Baseline field investigations were conducted by Golder Associates on behalf of Quest International Resources Corporation (Quest) at the Damoti Lake Gold Project located on Damoti Lake, NT. Field work included surveys of the hydrology, fish and fish habitat, water quality, vegetation, wildlife, archaeological sites, noise and air quality present in the area of the proposed project. Field technical assistance by Jonas Lafferty and Norm Mackenzie, both of whom are Dogrib Treaty 11 members. Water quality sampling found that Damoti and Lardass Lakes have low phosphorous concentrations which results in the lakes being classified as oligotrophic. The baseline concentrations of several metals were elevated in water samples taken from lakes near the camp, including Damoti Lake. These metals were aluminum, barium, manganese, and strontium. Metals in fish tissue samples were generally non-detectable or present in very low concentrations (ie. slightly above detection limits) for barium, chromium, cobalt, molybdenum, nickel, selenium, silver, strontium, and thallium. Some 125 species of birds, 50 species of mammals, and 1 species of amphibian may occur in the project area. Key indicator species were selected for further assessment work to be done in the future, including beaver, mink, black bear, grey wolf, caribou, moose, mallard, and peregrine falcon. Archaeological surveys of the area found one site of pre-historic occupation. No historic period materials of any antiquity were found, and neither was there any indication of sites reflecting traditional land use by aboriginal communities.

176 Biology

Melton, Derek
Golder Associates Ltd.
10th Fl., 940-6th Ave. S.W.
Calgary, AB T2P 3T1

Reference No: 12 402 601 (ARI)
Region: SA Location: Tulita and Norman Wells
Year of Research: 1997
Other members of team: Mark Ealey, Laurie Buckland or Tony Calverly

Wildlife and Fisheries Habitat Survey at Ranger Oil's Exploratory Drilling Project near Tulita (Fort Norman).

The main objective was to establish baseline wildlife and fisheries habitat conditions prior to start of Ranger Oil's winter exploration drilling program. All sampling was done over a 2-3 day period in mid-September. Three well sites were planned for drilling. Well site 1 is near Nota Creek and accessed by the Norman Wells-Tulita winter road, plus an existing short cutline. Well site 2 is near Bear Rock and accessed by regular winter road, plus 1.5 km of existing cutline. Well site 3 is west of the Mackenzie River and north of the Little Bear River. Wildlife surveys were done at all three well sites. The data collection was primarily observational and included visual surveys, scat counts, and ground travel on foot to establish den/nest locations. Fisheries work was done near well site 3 only, as some new ice roads will be created to access this location. The proposed ice road will cross two watercourses; the Slater River and one unnamed creek adjacent to the Mackenzie River. Field work included preparation of detailed maps showing instream riparian fish habitat at all crossing locations. A fisheries census was done at each proposed crossing to establish the character of the fish community prior to road travel. Fish were sampled using electroshocking equipment and seine nets where appropriate. Sampling focussed only on species presence/absence, but individuals from species difficult to identify were collected for later identification.

177 Biology

Nakamura, Ichiro
41 Sunrise Blvd.
Williamsville
New York, USA, 13221

Reference No: 12 402 595 (ARI)
Region: IN Location: Public/camp sites along the Dempster highway
Year of Research: 1997
Other members of team: Mitsuko Nakamura

Butterfly Fauna of the Western Northwest Territories

Butterflies were observed and some specimens were collected along the Dempster Highway in the western part of the NWT in late June to early July. The areas covered were limited to within a few miles from the road. Sample specimens were secured as representatives of the local populations, and to provide definitive identification. Altogether, 98 specimens of approximately 20 species were obtained, and a complete list will be forthcoming following further work with the Canadian National Collection in Ottawa. The time limitation and unfavourable weather did not permit a more comprehensive survey of the area's butterfly fauna, but the trip did provide a valuable preliminary result for future studies, particularly a study of various areas away from the Highway.

178 Biology

Osawa, Akira
Faculty of Intercultural Communication
Ryukoku University
Seta-Ohe, Ohtsu
520-21 Japan,

Reference No: 12 402 412 (ARI)
Region: SS Location: Wood Buffalo National Park along highway No. 5
Year of Research: 1997
Other members of team: Nahoko Kurachi, Masumi Miyaura, Tomiyasu Miyaura, Hiroo Yamada

Reconstruction of Forest Structure and Function in Canadian Taiga

The researchers went to Wood Buffalo National Park for a study of the historical changes of jack pine forests, such as the changes in structure and various functional amounts of a forest over time. They were interested in learning the details of the development patterns of these forests to determine if the forests are responding to environmental changes which are the result of global warming. Most activities consisted of re-measuring jack pine stands that were examined in 1992 using various kinds of measuring tapes and a specially designed pole for measuring heights. A few stands were studied by taking stem samples for examination of tree rings and tree growth that occurred in the past. This involved cutting about 30 trees of various sizes. Detrimental activity to the forest environment was minimized by allowing enough distance between the trees selected for cutting. They plan to compare the results of their research in the Northwest Territories to the data from similar studies in central Siberia.

179 Biology

Sander, Barbara
Department of Resources, Wildlife and Economic Development
University of Alberta
442 Earth Science Building
Edmonton, AB T6G 2E3

Reference No: 12 402 600 (ARI)
Region: SS, DC, NS Location: sites of old forest fires along Highways 1, 2 and 5 (near Fort Smith & Hay River)
Year of Research: 1997
Other members of team: Ian Nalder, one or two field assistants

Post-Fire Decomposition of Woody Material and Post-Fire Habitat Structures in the Western Canadian Boreal Forest.

Burned areas of different ages have been identified from fire-history maps and data bases provided by the Forest Management Division of the NWT in Fort Smith. Chosen fires were located along Highways 1, 2, and 5; the exact location of the sites was documented by using GPS-equipment. A total of three species (Jack Pine, Black Spruce, and Trembling Aspen) were sampled per selected fire. On the sites a total of 40 to 50 samples of wood were collected, consisting of disks approximately 2-5 cm thick. 30 samples were collected from dead and downed trees, 10 samples from standing dead trees (where available), and 10 samples were collected from trees that regenerated on site or survived the fire (the tree sizes were below merchantable timber sizes). The sampled trees were chosen randomly using the line interested method. The disks were taken using only manual saws; no chainsaws or any other powered equipment was used on site. The specific gravity of the samples is presently being measured for statistical analysis.

180 Biology

Steinecke, Karin
University of Bremen
FB8, Geography
P.O. Box 330440
D-28334 Bremen, Germany,

Reference No: 12 402 594 (ARI)
Region: NS, SS Location: Pine Point and Yellowknife & surroundings
Year of Research: 1997
Other members of team: Dipl.- Geogr. Bettina Wittenberg

Studies on the Past, Present and Future Ecological Impact on Canadian Northern Boreal Forest and Arctic Ecosystems Due to Mining Activities, Shown at the Great Slave Lake area, Northwest Territories, Canada
The research done in the period from July to September 1997 includes the theoretical study of scientific literature dealing with the impact of mining and settlement in the arctic, subarctic, and boreal environments (University of Alberta in Edmonton, local official libraries in Yellowknife), as well as practical ecological field work at selected investigation sites in Yellowknife and Pine Point. In Yellowknife, the research focussed on the health and biodiversity of terrestrial and aquatic ecosystems with variable human impact by mining and settlement within and outside the city limits. The specified lakes and ponds (Frame Lake, Range Lake, Kam Lake, Jackfish Lake, Trapper Lake, Mist Lake) were examined regarding their physical (water temperature, water depth, clouding, etc.), chemical (contaminant contents in water and sediment samples, pH and conductivity, etc.), and especially biological (biocoenosis of invertebrate aquatic animals) properties. The vegetation studies at selected sites (dense black spruce stands, light tree stands on outcrops, ruderal and roadside sites) include the determination of species composition, diversity, fertility, and vitality in the tree, shrub and moss/lichen layer in relation to the contamination of soil and leaf samples due to the man-made stress. In Pine Point, the abandoned mining site near the town of Hay River, similar analyses and measurements were done at disturbed and mostly forest or even vegetation free sites (former town site, former mill site, tailingspond, spoil banks, roads, air strip, now water-filled pits) in order to understand the process of recovery, revegetation, and recolonization in the boreal habitats after the direct human impact had stopped. Please note that these research activities are part of a longer research project which will be continued in summer 1998.

181 Biology

Sutor, Greg
10th floor, 940 6th Ave. S.W.
Golder Associates Ltd.
Calgary, AB T2P 3T1

Reference No: 12 402 599 (ARI)
Region: IN Location: Ikhil K-35, Caribou Hills and a 50 km right-of way to Inuvik
Year of Research: 1997
Other members of team: Derek A. Melton, Tony Calverly, Inuvik HTC representative

Vegetation Survey for the Ikhil Gas Development

The field survey was undertaken between September 25th and 28th, 1997 to obtain additional information on wildlife and wildlife habitat to ensure that potential environmental impacts are avoided or minimised to the greatest extent possible. Fisheries work was also carried out, as was a brief directed traditional knowledge study for the study area. A regional study area comprised approximately 2500 km^2 area around the three well sites, plus a 5 km buffer. Apart from existing cutline, all project components were surveyed on the ground. Sketch maps were made of all project components, noting vegetation types and any wildlife or signs of their presence. Special attention was made to search for features that could be disturbed by the winter project, such as dens or stick nests of raptors. None was found during the survey in the study area. Sign of woodland caribou, moose wolf, black bear, and beaver were present in the study area, and all but wolf were observed in the regional study area. Along with fisheries data, these observations have allowed for additional suggested mitigation activities for the project, which will be included in a final report to be finalised soon.

Contaminants

182 Contaminants

Puznicki, Wayne
Water Resources, Contaminants Div.
Department of Indian Affairs & Northern Development
P.O. Box 1500
Yellowknife, NT X1A 2R3

Reference No: 12 402 596 (ARI)
Region: NS Location: Bluefish Lake, Duncan Lake and Baptiste Lake
Year of Research: 1997
Other members of team: Yellowknives Dene First Nation

Mercury Concentration of Two Lakes on the Yellowknife River System Affected by the Bluefish Hydrodam
Field sampling was conducted between July 29 and August 4, 1997. All sampling was conducted with the participation of three members of the Yellowknives Dene First Nation (two youths and an elder) and a contractor. Representative samples of fish, water, and sediment were collected from Duncan, Bluefish, and Baptiste Lakes and submitted to either Taiga Environmental Laboratory or Flett Research Ltd. for mercury analysis. Fish information collected included the age, sex, weight, and length. Laboratory results for the fish, water, and sediment analysis have been received and the Yellowknives Dene First Nation notified. The final report will be prepared jointly with the Yellowknives Dene First Nation.

Fossils

183 Fossils

Cumbaa, S.L.
Canadian Museum of Nature
Box 3443, Stn. D.
Ottawa, ON K1P 6P4

Reference No: 12 412 030 (ARI)
Region: IN Location: Anderson River, 31 km east of Simpson Lake and 8.5 km SE of Ennak Lake
Year of Research: 1997
Other members of team: Richard Day (Can. Museum of Nature), Dr. Oliver Hampe (Museum fur Naturkunde), John Chorn (Univ. of Kansas, Museum of Natural History)

Early Devonian Bony Fishes and the Relationships of Lungfishes

Research was conducted July 17-August 3, along the Anderson River about 300 km east of Inuvik. High water prevented the collection of fossils from one locality, but the limestone rocks near our camp contained good fossil material from an ancient ocean which covered this part of North America about 400 million years ago. We found marine plants, and many invertebrate fossils, including eurypterids, sometimes known as "sea scorpions." Our major finds were the fossilised bones of fish. We uncovered fossils of lungfish (air-breathing fishes which live today in freshwater in Africa, Australia, and South America), and two kinds of porolepiforms, extinct lobe-finned fishes somewhat like the coelacanth, the "living fossil" discovered off the coast of Africa earlier this century. We also found a number of complete specimens of *Dialipina*, the earliest known relative of modern ray-finned fishes. These 10-20cm long fish were covered in very distinctive scales. For the first time we found a number of complete tiny fish (2-3 cm long) with big spines, called acanthodians (an extinct group). We also collected rock samples which will be examined for tiny fossils under microscopes to find better clues to the age of these important Anderson River fossils.

184 Fossils

Day, James E.
Department of Geography-Geology
Illinois State University
Normal, Illinois, USA 61790-4400

Reference No: 12 412 045 (ARI)
Region: SS, DC Location: South Mackenzie area near Hay River, Kakisa & Enterprise
Year of Research: 1997
Other members of team: Dr. Maya Elrick (University of New Mexico) Dr. Michael Whalen (University of Alaska-Fairbanks)

Investigation of Late Devonian Faunal Extinction's in the Ancient Tropical Ocean in Western Canada: Hay River Area-Southern Northwest Territories

The Hay River region features complete well preserved Upper Devonian deposits that accumulated over a span of time when known or suspected major species extinctions, sea level, and climate changes have been detected in other sites in North America, Europe, and Asia. The goals of the project were to (1) collect new detailed fossil data to allow for more accurate age estimates of Upper Devonian deposits in the Hay River region and adjacent areas of western Canada; to (2) study and document sea level and climate changes during the Late Devonian time interval (approx. 8 million years in duration); and (3) to study rates and possible causes of species extinctions in the tropical ocean recorded by rocks and fossil sequence in the region. The researchers conducted field work at 16 sites situated along the Hay River and along the Mackenzie Highway in the southern Northwest Territories from June 6 to June 21, 1997. Sampling was done with rock hammers and are being analysed at Illinois States University. Measurement of rocks at sites was done with portable hand-held compasses, transits, ruled tapes, and stadia rods. All sites were documented photographically, and all were located with GIS instruments and topographic maps. Rock sample size varied depending on if they were collected for microfossils, larger animal fossils, or chemical and physical studies of rock textures and chemistry. After analysis, description, and photographic documentation, all fossil specimens will be permanently placed at the Institute of Sedimentary and Petroleum Geology at Geological Survey of Canada in Calgary.

Geology

185 Geology

Bleeker, Wouter
Geological Survey of Canada
601 Booth Street
Ottawa, ON K1A 0E8

Reference No: 12 404 506 (ARI)
Region: NS Location: Yellowknife to Watta Lake and north of Lac de Gras; Acarta River area, Point Lake
Year of Research: 1997
Other members of team: Dr. John Waldron, Dr. Walter Roert, Dr. John Ketchum, Dr.Bill Davis, Dr. Richard Stern, Dr. Kathryne Bethune, Brian Shane Wilksinson

Thematic Structural Stratigraphic, and Geochronological Studies of the Slave Structural Province.
The study focuses on the relationship between the old rocks in the central, southern, and western part of the Slave Province and the adjacent volcanic and sedimentary rocks. Small camps were established to facilitate daily traverses by boat or foot to study the local rocks and fist-sized samples were taken of interesting rocks. A more detailed outline of basement rocks has been proposed. The stratigraphy of the overlying volcanic and sedimentary rocks has been refined and is being worked in further detail, applying state-of-the-art isotopic dating techniques. Interim results have been published in the Geological Survey of Canada's Current Research Papers, and a number of papers have been submitted to the Canadian Journal of Earth Sciences. Final results will be compiled on maps and these will be incorporated in a new geoscientific atlas of the Slave Province. Detailed and up-to-date geological maps and geoscientific data are essential to land use planning by various government and stakeholders. Results are also being disseminated yearly at the Yellowknife Geoscience Forum.

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186 Geology

Colpron, Maurice
Resources, Wildlife and Economic Development
Government of the NWT
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Yellowknife, NT X1A 2L9

Reference No: 12 404 533 (ARI)
Region: SA Location: Area west & south of Dal Lake (145 km East of Wrigley)
Year of Research: 1997
Other members of team: Carole Augereau

Geology and Mineral Occurrences of the Ravens Throat Area, Mackenzie Mountains, N.W.T.
The project was conducted from tent fly-camps within the study area. Each camp was occupied for approximately 5-7 days. Our work consisted of daily hikes from our camps, during which our observations of the rock types and mineral occurrences were noted on 1:50,000-scale topographic maps and air photos. Data collection was made using standard geological methods (rock hammer and compass), with occasional use of Global Positioning System (GPS) technology. Field data was entered in digital format during field work. Occasional rock samples (approx. 10x5x5 cm) were collected for further examination and analyses in the laboratory.

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187 Geology

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Calgary, AB T2L 2A7

Reference No: 12 404 532 (ARI)
Region: DC Location: central Kotaneelee Range near Ft. Liard
Year of Research: 1997
Other members of team: Denise Hodder, one other researcher

Geological Mapping 95 C/8 - South Kotaneelee Anticline and 95 B/5 and 12.
Parts of the Kotaneelee and La Biche ranges were mapped at 1:50 000 scale during the summer of 1997 to provide a regional context for more detailed mapping. This work builds on mapping by M.R. McDonough (1995 and 1996), donated by Husky Oil Operations Ltd; mapping by T. Kubli (1996), made available by Norcen Resources Ltd; and a 1:250 000 scale compilation map by Douglas (1974). The map pattern of the Babiche Mountain and Chinkeh Creek map areas is controlled by broad, west-verging detachment box folds of the Kotaneelee and La Biche anticline-syncline pairs. Many previously inferred faults do not exist. Anticlines are cored by the Devonian to Lower Carboniferous Besa River and Lower Carboniferous Mattson formations, and flanked by Permian rocks of the informal Tika map unit (previously considered Mattson Formation) and Fantasque Formation. Synclines are filled with Cretaceous Fort St. John Group strata.

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188 Geology

Dyke, Larry
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Ottawa, ON K1A 0E8

Reference No: 12 404 528 (ARI)
Region: IN Location: Niglintgak Island & Parsons Lake area
Year of Research: 1997
Other members of team: Jim Hunter, Marin Douma, Chris Hyde

Using Drilling Mud Sumps to Determine How Well Permafrost Contains Contaminants
Abandoned drilling mud sumps in the Mackenzie Delta area provide an opportunity to examine how well permafrost contains industrial wastes. The sumps are not presently considered to pose any kind of environmental hazard, but they do offer a unique opportunity to determine the effectiveness of permafrost as a containment for waste fluids containing water soluble salts. Conventional water disposal practise has tended to treat permafrost as impermeable, but unfrozen water typically present in permafrost, thawing ice fabric, or climate warming may render this assumption invalid. Results from spring 1997 field work on two sumps show that salt has migrated beyond the original confines of the pit. High electrical conductivity around the rims of sump mounds suggest that seepage shortly after burial caused fluid to be squeezed upwards along the edges of the pits where confinement by overfilling was least. Core samples show that potassium chloride, commonly added to muds to lower the freezing point, has migrated at least 10m beyond the sump edge through the active layer, and is also present in the permafrost below. Because there is no topographic gradient to induce groundwater flow, this movement must be due to diffusion alone. The probable importance of groundwater in promoting migration will be addressed during 1998 field work.

189 Geology

MacNaughton, Robert
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Kingston, ON K7L 3N6

Reference No: 12 404 529 (ARI)
Region: SA Location: Sekwi Brook North, Sekwi Brook South & Ingta Ridge
Year of Research: 1997
Other members of team: G.M. Narbonne, R.W. Dalrymple, R. Brown

Terminal Proterozoic Events in Northwestern Canada

Field work was done in three places: Shale Lake, Sekwi Brook North, and Sekwi Brook South. G.M. Narbonne and R.W. Dalrymple spent four days at Shale Lake doing a basic survey of the site's geology. Most of the work was done at the other two sites by R.B. MacNaughton and J.M. Cole. We studied the rocks in the geological units called the Gametrail, Blueflower, and Risky Formations, and interpreted how they were formed. The Gametrail and Blueflower Formations formed in deep ocean basins, whereas the Risky Formation formed in much more shallow ocean waters. After the Risky Formation was formed, its top was strongly eroded before younger rocks were deposited on top of it. The Gametrail and Blueflower Formations contain examples of some of the oldest animal fossils known in the world. Body fossils and fossilized animal burrows are both present. We will use our new knowledge about the environments in which the Gametrail and Blueflower Formations rocks formed to tell us more about how these animals lived.

190 Geology

Nixon, Mark
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Reference No: 12 404 398 (ARI)
Region: IN, DC, SA Location: Fort Simpson, Norman Wells, Inuvik and Tuktoyaktuk
Year of Research: 1997
Other members of team: Fred Wright

Active layer monitoring network in the Mackenzie Valley

During July and August 1997, the 7th annual survey of the active layer monitoring system in the Mackenzie Valley was completed, from Fort Simpson to the Arctic coast. Two sites were lost to animal damage and ice in the delta, and one was restored. The sites now number 58. Water-filled clear plastic observation tubes record maximum depth of thaw each year. Air and ground temperature loggers provide a thermal record at many sites. When possible, sites are close to automatic weather stations and are shared with research groups doing complimentary work. Along this 1400 km transect, active layer thickness varies more as a result of local factors, related to situation, than to regional climate, associated with latitude. Though the spatial variation is complex, over the last 5 to 7 years, thaw penetration is increasing at many sites over much of the system. Sites north of Norman Wells did not show the normal increase last season, perhaps as a result of the cold July and August 1996. In the longer term, measurements from this transect could be used to help model climate change impact on near surface permafrost in this fragile environment.

Health

191 Health

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Edmonton, AB T6J 1S9

Reference No: 12 408 113 (ARI)
Region: IN, SA Location: Inuvik, Aklavik, Ft. Good Hope, Ft. McPherson, Tuktoyaktuk, Deline & Tulita
Year of Research: 1997
Other members of team: Dr. C.W. MacNeil, Henry Pabst, D. Robert Shea, Dawn McCullum

Fetal Alcohol Syndrome and Effect: Following of Northern Infants at Risk
This study was originally planned for 1994 as a follow-up to the Northern Infant Nutrition Study (NINS) in the Inuvik Zone, however, the study was unable to proceed until 1996/97. This study involved the assessment of elementary school children with data collection involving questionnaires, physical and psychometric testing, and school achievement testing. All of the above was done in the local health centre or in the school. There was no lab work or other invasive procedures. Parents were required to give their consent for their children to be involved in the study. The study was explained in detail to ensure that informed consent was obtained and confidentiality was maintained. The testing was done so that the researcher was the only one who knew which children had alcohol exposure. Individual results were kept confidential, although parents were informed of their children's results. This study furthers the present knowledge of the effect of exposure to alcohol during pregnancy on the child and underlines the need for prevention and remedial programs.

192 Health

Pimstone, Simon Neil
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University of British Columbia
Vancouver, BC V6T 1Z4

Reference No: 12 408 114 (ARI)
Region: DC Location: Fort Providence
Year of Research: 1997
Other members of team: Michael R. Hayden, Walter Maksymowych and Marianne McCashin

The Genetic Basis of Seronegative Spondyloarthropathy in the Northwest Territories

Researchers from the Universities of British Columbia and Alberta are in the midst of a research project aimed at identifying the genetic basis for ankylosing spondylitis in the community of Fort Providence. Late in 1997, a genetic field worker and a rheumatologist visited Fort Providence to undertake clinical examinations and x-ray's of individuals from a large family living in Fort Providence. After careful planning, together with staff at the local health centre, the family was examined, blood samples were taken, and x-ray's performed on adults of this family. A few more individuals from this family are still being screened to complete the study. Blood from this study was sent to researchers in Vancouver for genetic analyses which are currently being planned. These are expected to take another year. However, preliminary analysis from the study shows a strong predisposition to ankylosing spondylitis in the Fort Providence community. It is unlikely that this form of arthritis is due solely to environmental factors as there is certainly a concentration of this disorder within certain nuclear families within the larger kindred. We hope to have the genetic analyses completed by the end of 1999, by which time, we hope to have elucidated a possible genetic mechanism resulting in this crippling condition within this community.

Physical Sciences

193 Physical Sciences

Kershaw, G. Peter
Department of Earth and Atmospheric Sciences
University of Alberta
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Reference No: 12 404 116 (ARI)
Region: SA Location: 10 km North of Tulita
Year of Research: 1997
Other members of team: self

Studies of the Environmental Effects of Disturbances in the Subarctic

On June 7 1995, a forest fire burned through the SEEDS camp and research site that was established in 1984, 10km north of Tulita. During May 1996, the research site was reactivated with new automated weather stations and an unburned forest site (3km north of the original site) was instrumented for comparison. The research initiated in 1996 was continued in 1997. In February 1997, detailed snow sampling was also conducted to compare the snowpack on the burned and unburned areas. The 1997 summer field season began in May and continued until mid-August. The automated microclimate stations were modified to attach sensors used only in the summer (eg. sensors to measure the amount of sun energy absorbed by the soil). Two topographic surveys were completed (June and August). In August, a survey was conducted to determine soil characteristics at depth using ground penetrating radar. A breeding bird survey was done in mid-July. Vegetation work included plant stage development during the growing season, as well as species identification and visual estimates of their cover.

194 Physical Sciences

Burn, Chris
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1125 Colonel By Dr.
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Reference No: 12 404 325 (ARI)
Region: IN Location: Richards Island (Illisarvik), Garry Island
Year of Research: 1997
Other members of team: Alex Elanik, Anne-Pascale Bartleman

Investigations of Ground Ice Development in Sediments of the Mackenzie Delta Area.

In 1997, we continued investigations of ground ice conditions at Illisarvik on Richards Island. We surveyed the deformation of ground beside ice wedges to examine how the ground is displaced by seasonal expansion and contraction. We began a geophysical survey of the drained lake bed to investigate changes since a similar survey in 1982 associated with the development of permafrost on the lake bottom. We continued data collection of air and ground temperatures on a transect from Inuvik to Pelly Island to determine how growing season conditions change with distance from the coast. Finally, in the spring, we completed data collection on the electrical conditions in lake water during winter, a project that was conducted in collaboration with the Aurora Research Institute.

195 Physical Sciences

Clark, Ian D.
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140 Louis Pasteur
Ottawa, ON K1N 6N5

Reference No: 12 404 534 (ARI)
Region: IN Location: Cache Creek Basin, Aklavik Range
Year of Research: 1997
Other members of team: Bernard Lauriol, Iannick Lamirande, Eric Deschamps and Mark Marschner

Water Quality in the Richardson Mountain Catchments

The objectives of this research were to study the chemistry of the groundwater that flow into the Little Fish River near the Cache Creek overwintering hole. The role of carbonate rocks is important as there is a lot of subsurface flow in this rock type. The presence of the aufeis (winter icing) on Cache Creek is a sign of groundwater flow, and is one of the reasons that this site was chosen. We studied the chemistry of the groundwater at these two sites to compare the effect of different rock types. We sampled water from springs and seeps in the area, as well as river water and surface water. These samples were chemically analysed at our laboratory at the University of Ottawa. Results show that the water of the Cache Creek area which flow through Fish Hole have a chemistry dominated by calcium and bicarbonate which is typical for surface waters and groundwater throughout the region. However, there was also a component of sodium and chloride salinity which is responsible for a significant portion of the river water salinity at baseflow. Studies show that these spring waters are locally recharged, likely on the Richardson Mountains. Another aspect of the work was to look at the effect of methane production on groundwater in the catchment. The results show that bacterial methane was produced in many of the shallow groundwater sampled, and affected the $CaHCO_3$ component of the water chemistry in the runoff from this basin. This information provides an understanding of what controls the chemistry of this runoff, and how it may be changing with global warming. This data is important to understanding how a warmer climate in the north will affect the land in this region, and it may also help understand changes to the water and how this may affect fish.

196 Physical Sciences

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University of British Columbia
Vancouver, BC V6T 1Z4

Reference No: 12 404 517 (ARI)
Region: DC, NS Location: along highways 7, 1, 3 and 4 from Nahanni Butte to Tibbet Lake
Year of Research: 1997
Other members of team: Dr. R.M. Ellis, UBC, Vancouver; Dr. I. Asudeh, GSC, Ottawa; Dr. G.D. Spence, U. of Victoria, Victoria; plus a field crew (approx. 60 people)

Slave - Northern Cordillera Refraction Experiment (SNORE 97)

This refraction seismic project was part of larger transect which extends from Yellowknife to Stewart on the west coast of British Columbia. It is part of the sequence of Earth & Ocean Science studies to provide an in-depth image of the deep structure of the Earth throughout the region and will help to define the sequence of emplacement of various types of rock formations in the region. Recording sites were marked and their precise location determined by Global Positioning System procedures. Each site is drilled with one to three holes, 50-60m deep and about 30m apart. The holes are packed with explosives and sealed at the surface to await detonation. It took approx. 2-3 weeks in July to drill and load 12 sites. In late August/early September, instruments were prepared for deployment by digging a small hole, 50cm deep, 20-30cm in diameter, in which the seismometer was firmly placed and the hole was then filled and tamped. If the site was on bedrock, the seismometer was placed on bedrock. The seismometer was connected to a recorder which records ground vibrations. Following detonations, crews were sent to pick up equipment and related materials. Data recorded by each seismograph was uploaded into a computer and the complete data analysis and interpretation will take 2-3 years to complete. However, record sections of the data from each shot have been compiled and these show excellent signal-to-noise characteristics. Thus the acquisition phase of the project was highly successful. Analysis and interpretation of the extensive data set is currently in progress at the University of British Columbia.

197 Physical Sciences

Corcoran, Patricia
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Reference No: 12 404 531 (ARI)
Region: NS Location: Beniah Lake, Drybones Lake & Point Lake
Year of Research: 1997
Other members of team: Clarence Picket, Renee-Luce Simard, Michael Cote

Volcanological and Sedimentological Evolution of the Slave Province along the Beniah Lk. Fault
The field crew was divided into two teams for the purpose of conducting two separate studies. One team studied the quartzite arenites (sedimentary rocks) in the area, while the other team mapped and sampled the volcanic sequence. The second team also spent some time in the Point Lake area working in similar geological terrain. The methodology of the first team included mapping outcrops on a regional and detailed scale to deduce contact relationships between older and younger rock types, and to identify the sedimentary structures characteristic of the formation. They also measured bedding and foliation directions to help determine the deformation in the area. A number of samples were collected for thin section study, which helped in characterizing the depositional environment. The result show that the quartz arenites were deposited in a shallow-water environment in a stable shelf setting. The second team also conducted large- and small-sale mapping, and sampled extensively for geochemical analysis. The results indicate that the volcanic rocks were emplaced in a subaqueous setting associated with arc or back-arc rifting. The rocks show geochemical features of crustal contamination, suggesting that they erupted through continental crust. The up-section change from quartz arenites to subaqueous volcanic rocks indicates continued basin subsidence caused by rifting -- a feature commonly recorded in Archean terrains.

198 Physical Sciences

French, Hugh
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Reference No: 12 404 074 (ARI)
Region: IN Location: Sachs Harbour, along coastal bluffs
Year of Research: 1997
Other members of team: self

Cryolithology and Permafrost Studies, Sachs River Lowlands and Sachs Harbour Vicinity
Field investigations in the Sachs Harbour townsite in August 1997 involved the examination of a number of disused ice cellars, most between 1-4m deep, which were constructed by local residents in the late 1950's and onwards, and the communal ice cellar approximately 1.0 km to the east of the village. The researcher studied the cryostructures which occur in perennially frozen, unconsolidated ice rich sediments. The aim of all these investigations is to develop an in-depth understanding of the permafrost conditions in and around the Sachs Harbour settlement in order to (1) minimize terrain disturbance, (2) identify local aggregate sources, and (3) develop a landscape evolution model for the southern flank of the Sachs Harbour ridge under periglacial (i.e. cold climate) conditions. Reconnaissance was also undertaken to identify the location of a possible circumpolar active layer monitoring (CALM) site.

199 Physical Sciences

Hallinan, Thomas J.
Geophysical Institute
University of Alaska
P.O. Box 757320
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Reference No: 12 404 527 (ARI)
Region: SS Location: Fort Smith
Year of Research: 1997
Other members of team: Hans Stenback-Nielsen

Ground-based Auroral Observations in Conjunction with the FAST Satellite

During the spring of 1997, the Geophysical Institute of the University of Alaska installed an automated all-sky television camera at the Upper Air Station in Fort Smith. The purpose of the all-sky camera was to obtain images of the aurora during passes of the FAST satellite, and to obtain a general collection of aurora video recordings as part of the International Aurora Study. Over the period from January 7 to April 14, 1997, we obtained 98 rolls of video tape, including 51 rolls with active aurora. The camera was operating during thirteen passes of the FAST satellite. Of these, the sky was cloudy during eight passes. During two passes the sky was clear, but there was no aurora. On three passes there was aurora. Two of the passes had particularly interesting aurora. One showed an array of large nested loops. Another was the beginning of a major brightening and poleward expansion of the aurora. In addition to the FAST passes, the recordings include a good variety of auroral forms such as spirals, omega bands, and pulsating aurora. These will be useful for general auroral studies. The data have all been logged, but have not yet been analysed.

200 Physical Sciences

Kershaw, G. Peter
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Reference No: 12 404 116 (ARI)
Region: SA Location: within 40 miles of Camp 222 and from Mile 53 to 113
Year of Research: 1997
Other members of team: Rob Young, Stewart Brown, Linda and Eric Kershaw

Ecological and Geomorphological Investigations in the Alpine Tundra of the Mackenzie Mountains, NWT.

In 1997, researchers were in the Canol study area from late-June to August. Automated weather stations were serviced and the stored data recovered. During July-August, detailed studies were completed on the natural recovery of Canol Project disturbances between Mile 56 and 111 of the Canol Heritage Trail. A total of 690 vegetation quadrants were assessed and permanently marked for future survey. Plant studies included identification of plants and estimates of their cover. Data analysis continues on this study. A small study was initiated in an attempt to determine if solifluction lobes (slow-moving earth lobes) in a valley north of Macmillan Pass, were active. A shallow trench was dug and soil samples removed for lab analysis. An automated weather station was left running in association with the feature. In association with permafrost studies, automated weather stations were left running in the hopes that a seventh year of information could be collected on temperatures (soil and air), wind speed, global radiation, precipitation, and snowpack depth. These data will be useful in the development of theories regarding the presence and status of permafrost landforms in the area.

201 Physical Sciences

Lesack, Lance
Department of Geography
Simon Fraser University
Burnaby, BC V5A 1S6

Reference No: 12 404 485 (ARI)
Region: IN Location: Mackenzie Delta near Inuvik
Year of Research: 1997
Other members of team: Margaret Squires, Christopher Teichreb

Biogeochemistry of Lakes in the Mackenzie Delta

This is an on-going research project and the long-term goal is to develop a biogeochemical model for lakes in the Mackenzie Delta, and ultimately, a more general ecosystem model for lakes in the flood plains & deltas of major world rivers that could help assess the effects of multiple stresses on rivers as a result of global change. Specific goals for the 1997 season included evaluating the rates of growth among specialized groups of aquatic plants among a set of lakes that range from non-transparent to relatively transparent (Ph. D. thesis project of Squires) and evaluating of the average amount of light available for plant growth in the same set of lakes. Ms. Squires spent July and August identifying potential study sites and performing initial fieldwork. She found a lake chain with a consistent gradient in turbidity which will be exploited for more detailed investigations during 1998 field season. We also installed a number of recording light meters that were able to measure the variation in water turbidity (capacity of water currents to carrying large quantities of particles in suspension) over the course of the summer. Analysis of data from earlier work by Ms. Squires has lead to submission of a publication to "Canadian Journal of Fisheries and Aquatic sciences" entitled "Benthic algal response to pulsed versus distributed inputs of sediments & nutrients in a limnocorral experiment in a Mackenzie Delta lake" Authors: Squires and Lesack). More comprehensive analysis of data from earlier work has lead to a publication in "Limnology and oceanography" entitled "Spatial and temporal dynamics of major solute chemistry among Mackenzie Delta lakes " (Authors: Lesak, Marsh, and Hecky).

202 Physical Sciences

Long, Darrel G.F.
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Laurentian University
Sudbury, ON P3E 2C6

Reference No: 12 404 530 (ARI)
Region: SA Location: Near Carcajou and Keele River, the west side of Tsezotene range, and east of Dall Lake
Year of Research: 1997
Other members of team: Sean Nelson

Sedimentary Architecture of Neoproterozoic Sandstones of the Katherine Group

Detailed measurements were made of the three-dimensional geometry fluvial sand bodies in the Neoproterozoic sandstones of the Katherine Group near Keel River in the Mackenzie Mountains, south of Norman Wells, and west of Tulita. These observations are suggestive of a down-stream marine influence on part of the sequence, due to the high angle of side bar slopes and directional attributes of the cross bedding. These observations will lead to a better understanding of how river systems worked before the advent of land plants. Unfortunately, field work was suspended after only one week as my field assistant developed vertigo on the steep scree slopes. Further research will be needed to fully understand the behaviour of these Precambrian giant river systems.

203 Physical Sciences

Mackay, Ross J.
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University of British Columbia
Vancouver, BC V6T 1Z2

Reference No: 12 404 247 (ARI)
Region: IN Location: Garry Island, Ilisarvik, West Point, Richards Island.
Year of Research: 1997
Other members of team: Dr. C.R. Burn, Carleton University, Ottawa

Permafrost Studies: Western Arctic Coast

Two weeks of field work were carried out along the coast to the west and east of Tuktoyaktuk, NT in association with Dr. C.R. Burn (Carleton University). At an experimental drained lake site at West Point, Richards Island, measurements were continued for the 19th successive year. Particular attention was devoted to a study of the ice-rich zone so commonly found at the top of permafrost. Samples were collected at the top of permafrost to determine the ice (water) content. The ice-rich zone is of practical importance, for example, in the construction of roads and pipelines. At Garry Island, measurements on the growth and deformation of ice wedge polygons were extended to more than 30 years. Studies at two pingo sites were continued. The first site is about 15 km east of Tuktoyaktuk, where measurements started in 1971, and the second site is near the eastern end of the Tuktoyaktuk Peninsula, where measurements started in 1969. The pingos at both sites are underlain by groundwater which is under such a high pressure that sub-pingo water lenses have developed beneath both pingos. The measurements, which are continuing, are designed to detect changes in pingo heights and growth conditions.

204 Physical Sciences

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Reference No: 12 404 378 (ARI)
Region: IN Location: Havikpak Creek and Trail Valley Creek
Year of Research: 1997
Other members of team: Dr. J. Pomeroy, Mr. C. Onclin, Mr.M. Russell

Snow Accumulation/Runoff in High Latitude Permafrost Basins

During 1997 we carried out detailed field studies in the Inuvik area. This work looked at the factors controlling the movement of energy and water between the land surface and the atmosphere during the spring snowmelt period. This controls both the supply of energy and water to the atmosphere, as well as snowmelt and therefore spring runoff in the streams and rivers. The long term objective of these studies is to provide an improved ability to predict weather, climate, and water resources. With future uncertainties in climate, and with potential development projects, such improved predictive ability is essential in order to properly manage future environmental change and to adapt to such changes. Our work concentrated on measuring or estimating all of the water entering into our two research areas (Trail Valley Creek and Havikpak Creek). These included snowfall, blowing snow into/out of the basin, sublimation of snow (the process by which the snow is transformed directly to the vapor state without passing through the liquid phase) during blowing events, rainfall, evaporation, and streamflow. This work clearly shows that snow and rain add similar amounts of water to the stream basin, but that because of its many steep slopes that trap snow, more snow actually blows into the Trail Valley Creek basin than is blown out of it. However, a large amount of snow sublimates during blowing snow events. This actually removes snow from the study area prior to it being able to melt and flow into the stream. Once melt occurs, about half of the available water evaporates and the other half leaves the area as streamflow. Ongoing work will compare the results from a number of different years so that we can understand the variation from year to year, and will compare the results from areas on either side of the treeline. This work provides the important data needed to test computer models aimed at predicting all of these components. Such models are very important for predicting the impact of possible climate warming on these environments.

205 Physical Sciences

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Reference No: 12 402 494 (ARI)
Region: IN Location: Komakuk Beach (BAR-1), Nicholson Penninsula (BAR-4)
Year of Research: 1997
Other members of team: Environmental Sciences Group: J. Rogers, W. Ingham, S.Englander, B. Zeeb, A. Liddiard, & D. Noonan; UMA Engineering: A. Washuta, R. Schmidtke, K. Staftfeld, E. Schulz, N. Plato, B. Fedorak, R. Merkosky, R. Nichol, M. Brolsma

Delineation of Komokuk Beach (BAR-1), and Nicholson Peninsula (BAR-4).
An environmental delineation of the BAR-4 Radar site and Komakuk Beach (BAR-1) was conducted late June and early July 1997. The study was undertaken to provide an up-to-date estimate of the volume of soil to be remediated in order that tender drawings could be finalized prior to the commencement of the cleanup in 1998, and to determine the PCB content of paint at the site. The main areas of contaminated soil at BAR-4 were in the sewage outfall, where untreated sewage was discharged through copper pipes, and in the two POL storage pads, where leaded fuel was spilled. At BAR-1, the contaminants of greatest concern were petroleum hydrocarbons and lead, both of which are associated with earlier fuel spills. An engineering investigation was also conducted to evaluate the general conditions of the site, to inventory buildings and structures, and to investigate the extent and magnitude of debris.

206 Physical Sciences

Solomon, Steve
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Dartmouth, NS B2Y 4A2

Reference No: 12 404 319 (ARI)
Region: IN Location: Richards Island, Tuktoyaktuk Peninsula, and Mackenzie Delta Front
Year of Research: 1997
Other members of team: Fred Jodrey

Coastal Impacts of Climate Change

Field surveys were undertaken July-August 1997 to continue monitoring coastal changes at 11 sites along the Beaufort Sea coast. The sites extended from the Alaska border to the Tuktoyaktuk Peninsula and included sites of archaeological significance (Ivvavik Park and Kittigazuit) and the Hamlet of Tuktoyaktuk. The program consisted of surveys of the beach and near shore using a combination of high resolution global positions systems and echosounders which allowed us to develop a three dimensional picture of the shape of the beach and near shore. This information is being compared with surveys from previous years in order to measure the amount of change which has taken place. At the same time, we have been compiling data on winds and water levels which can be used to understand the conditions which are responsible for the observed changes. Air photography was flown at selected sites for comparison with historical air photos in order to provide a more complete picture of coastal variability. Sediment samples were taken, and thickness of the active layer was measured at several sites for input into models of coastal evolution. Although data analysis is not yet completed, there have been several useful findings. During the field season, no severe storms occurred and most sites were generally stable. North Head continues to erode at a fairly rapid rate, but most sites in Ivvavik Park did not exhibit large changes. Observations during a small storm at Komakuk Beach were surprising in that they showed a large wave-cut notch below the runway being infilled with gravel during the storm. Wind in early August undermined new ad hoc shore protection (footings from the old school) at the Hamlet of Tuktoyaktuk, but had only minor effects on the beaches.

Social Sciences

207 Social Sciences

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2615 du Rhin St.
Quebec, Qc G1P 2Z7

Reference No: 12 410 540 (ARI)
Region: IN Location: Inuvik, Aklavik, Tuktoyaktuk, Fort McPherson and Tsiigehtchic
Year of Research: 1997
Other members of team: self

Policy and Planning for Ancestral Language Literacy in Inuvialuit and Gwich'in Communities.
The goal of this project was to discuss with the Inuvialuit and the Gwich'in their need for means to enhance Ancestral language usage in their communities. The first part of this study was an assessment of the means made available to the communities by the authorities. The researcher then tried to determine how each community was using those means. The study was conducted in Inuvik, Aklavik, Fort McPherson and Tsiigehtchic between September 23 - October 20 1997. A review of the available literature was done and 40 community members were interviewed. This data was integrated in a sociolinguistic description of these communities which includes such topics as the status given to Ancestral languages in the communities; the means made available by the Northwest Territories Government, the Beaufort-Delta Divisional Board of Education and the local authorities to implement specific programs for Ancestral languages; and the role that community members should take in the survival of their Ancestral language. The complete report can be accessed on the Internet trought Centre International de Recherche en Aménagement Linguistique site (www.ciral.ulaval.ca)

208 Social Sciences

Bright, Marilyn
Box 6302
Edson, AB T7E 1T8

Reference No: 12 410 527 (ARI)
Region: NS Location: Rae-Edzo and Snare Lake
Year of Research: 1997
Other members of team: self

Dene Graduates of Community Based Teacher Education Programs in the N.W.T.

In this exploratory and narrative study, stories of teaching and learning experiences were gathered from eight aboriginal teachers within the Dogrib Divisional Board of Education. The study provides insight into the teaching and learning experiences of the teachers in a time of extremely rapid cultural change, and reveals both similarities and differences between the traditional Dogrib and Euro-Canadian cultural heritage. The teachers' stories include their own childhood experiences of learning, within both their traditional land-based hunting and gathering cultural heritage and their attendance at Euro-Canadian residential or public schools. They also include the influences leading them to become teachers within their own communities' schools, the successes and difficulties they have encountered as teachers, and their ideas and suggestions regarding the directions their School Board needs to take to meet the needs of the students in the near future. A collaborative approach involved extensive negotiations between participants in the study. Data was collected with tape recordings of narrative-type conversations with Dene teachers, elders, and other community members. Reflective journals, written or oral biographies and autobiographies, observations, and field notes were included in the data collection.

209 Social Sciences

Cayen, Liz
Box 389
Fort McPherson, NT X0E 0J0

Reference No: 12 410 538 (ARI)
Region: IN Location: Aklavik, Fort McPherson, Inuvik and Tsiigehtchic
Year of Research: 1997
Other members of team: self

Distance Education in the Gwich'in Settlement Area: Its Current Status and Potential Role

The purpose of the study was to determine the current status of distance education in the Gwich'in Settlement Area, to analyse the existing education/training needs, and to make recommendations about the use of distance education methods and strategies to meet those needs. This involved surveying people who were presently or had recently pursued education through this delivery method. The data collected included information about the types of courses/programs, reasons for taking particular courses, structure of the course, support offered by the institution, how helpful the support was to the student, and the outcome of the course. There was complete anonymity and confidentiality of the respondents participating in the survey. A report was developed from the data, and recommendations were produced which may be used to develop a model of distance education which provides appropriate education and training endeavours to meet the needs and desires of the Gwich'in people.

210 Social Sciences

Crowell, James W.
Box 627
Fort Smith, NT X0E 0P0

Reference No: 12 410 517 (ARI)
Region: ALL Location: All schools and School Boards in NWT
Year of Research: 1997
Other members of team: self

(Home schooling in the Northwest Territories) Parent Choices in Education: Opting out of the Northwest Territories Education System.

This study is a continuation of work from 1996. School Principals had been contacted during the 1996/97 school year to collect data on the number of students involved in home schooling in each community. In the towns of Fort Smith, Hay River, and Yellowknife, parents of home schooling children were contacted through the principals to participate in tape recorded interviews. The data collection was limited to mail, phone, FAX, and personal contacts.

211 Social Sciences

Dixon, Nora
P.O. Box 2627
Inuvik, NT X0E 0T0

Reference No: 12 410 541 (ARI)
Region: IN Location: Inuvik
Year of Research: 1997
Other members of team: self

Literacy in the Far North: A Case Study of One Adolescent

The purpose of the project was to document the nature of a struggling adolescent reader's reading experiences including types of materials read, the reading settings and functions, and socio-cultural factors that influence reading. This research will involve a series of interviews of one adolescent and a reading diary will be prepared by the participant. The researcher will obtain informed consent from the participant and parental permission, and participant confidentiality will be maintained by identifying the individual by a pseudonym and general descriptors. Interviews will be tape recorded and transcribed, and the results will be written as an article for *Communicate*, the professional newsletter for the NWT Teachers Association, community presentation to teachers, parents and other interested individuals. The research proposal was accepted by York University, but no other progress has been made to date.

212 Social Sciences

Gerein, H.J.
8012E. Woodview Dr.
Spokane, WA 99212

Reference No: 12 410 539 (ARI)
Region: NS Location: Yellowknife
Year of Research: 1997
Other members of team: self

Community Wellness in the Northwest Territories: Indicators and Social Policy

As the foundation for the development of a common language about community, the researcher sought to define a healthy northern community and develop an instrument for the measurement of community wellness. A definition of community wellness and its measures composed a draft instrument derived from the literature on the quality of life, sustainable community, healthy community, and moral community movements as well as northern public policy documents. Designed for adaptation, application, and maintenance at the local and regional levels, the Community Wellness Instrument and its output, a wellness index, were based on available administrative and publicly collected statistics. The Instrument is a tool -- a means by which the Northwest Territories government and its communities can assess community socio-economic condition, gain insights to causal relationships, and mutually design policies and intervention strategies that will optimize effectiveness and the building of a more just society. The study measures the condition of the Territories' 58 communities, using the Instrument and statistical analyses to examine the relationships between socio-economic indicators; the differences among the communities based on their size, population composition, and administrative region; and to identify the best predictors of the Community Wellness Index. The project's findings and conclusions include implications of community wellness measurement and reporting to political accountability, policy-making, bureaucratic organisation, and administrative practice in Canada's north, along with recommendations for change and further study.

213 Social Sciences

Hainstock, Beverly
Box 2304
Inuvik, NT X0E 0T0

Reference No: 12 410 530 (ARI)
Region: IN Location: Inuvik
Year of Research: 1997
Other members of team: Abe Stewart

The Potential for FAS/FES Prevention in the Inuvik Community

The project methodology consisted of a literature search and a questionnaire. The literature search was done via the Internet, and the questionnaire was distributed to the communities of Inuvik, Aklavik, Tsiigehtchic, Fort McPherson, and Tuktoyaktuk. The literature search resulted in a report on recent developments in FAS/FAE research and a discussion of the definitions, characteristics, and causes of FAS/FAE. The results of the questionnaire show that all the communities surveyed see FAS/FAE as a problem. There is a significant need for FAS/FAE prevention work as little seems to have been done in the past to prevent this totally preventable condition. The people of the communities surveyed were very open about their knowledge of FAS/FAE and are looking for some education on the subject. A brochure in English, Gwich'in, and Inuvialuit was also produced for distribution.

214 Social Sciences

Hogan, Bernard
Box 155
Yellowknife, NT X1A 2N2

Reference No: 12 410 526 (ARI)
Region: IN, NS, SS Location: Yellowknife, Ft. Smith, Inuvik
Year of Research: 1997
Other members of team: self

The Internet as a Research and Communications Tool: the Promise and Reality

The goal of this project was to examine the effects the Net is having on the research and communication practices of post-secondary students. A "Net as a Research and Communication Tool" framework was adopted for the study, which utilised a combined quantitative and qualitative methodology. Students at Aurora College, Canada (surveyed between January and March 1997) and at Griffith University in Brisbane, Australia (surveyed in April 1997) served as the study subjects. 293 students participated from Aurora College, though only 272 surveys were considered usable. Of the 272, 138 students indicated that they were using the Net. 149 students participated from Griffith, and of the 140 usable surveys, 80 indicated that they were using the Net. Statistical indices are being developed from the survey data to explore the relationship between a) age, sex, and access, and b) usage, utility, and value. Focus group sessions and case study interviews with select Griffith students took place April 27-29, 1998. This qualitative data will highlight issues not fully explored in the survey. The final publication of the completed study is expected in early 1999.

215 Social Sciences

Hornal, Robert
Hornal Consultants Ltd.
401 - 1755 W. Broadway
Vancouver, BC V6J 4S5

Reference No: 12 410 523 (ARI)
Region: NS, SS Location: All communities in North Slave and South Slave Regions
Year of Research: 1997
Other members of team: L. McNeil

A Socio-Economic Impact Assessment of the 5034 project
This research was a continuation of the study started in 1996. Data on current conditions was collected through a literature review of government reports, through telephone conversations with community leaders and administrators and, when possible, visits to the communities.

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216 Social Sciences

King, Dave
12 West River Rd.
Box 1131
Walkerton, ON N0G 2V0

Reference No: 12 410 532 (ARI)
Region: NS Location: Yellowknife
Year of Research: 1997
Other members of team: Peter Kulchyski (Trent University), Andrew Pagak Sr. (Iqaluit)

The History of the Inuit Residential School System, under the Federal Government of Canada, 1955-1967.
The researcher planned to interview approximately 15 people in Yellowknife who went to schools in Yellowknife, Churchill, or Chesterfield. Unfortunately, he was unable to travel to Yellowknife that year due to unexpected circumstances.

217 Social Sciences

Storace, Fleur
Natural Resources Institute
University of Manitoba
Winnipeg, MB R3T 2N2

Reference No: 12 410 533 (ARI)
Region: IN Location: Inuvik, Tuktoyaktuk, and Aklavik
Year of Research: 1997
Other members of team: Mae Cockney, Joey Amos, Alan Fehr, Dr. Jack Mathias

Developing a Management Framework for Establishing Marine Protected Areas in the Inuvialuit Settlement Region: A Case Study of Beluga

The purpose of the research is to evaluate marine protection mechanisms for beluga management in the Inuvialuit Settlement Region (ISR). Field work was conducted from June 20-July 4, 1997 in order to assess the effectiveness of the Beaufort Sea Beluga Management Plan (BSBMP) from the perspective of the Inuvialuit. While in the Inuvialuit Settlement Region (ISR), the researcher spoke with academics, members of co-management committees, federal government representatives, local hunters and trappers, etc. Presentations were also made to various groups. In addition, the researcher obtained permission to visit various whaling camps. The researcher learned that the Inuvialuit are not against development as long as activities do not affect their most important resource harvesting regions.

218 Social Sciences

Sweeney, Sharon
Box 2304
Inuvik, NT X0E 0T0

Reference No: 12 410 528 (ARI)
Region: IN Location: Inuvik
Year of Research: 1997
Other members of team: self

Solvent Abuse Prevention Program

The first step in carrying out the duties of the Solvent Abuse Prevention Program was for the assigned staff to learn about solvents, their abuse, and the current resources in the community. These activities were carried out during the months of May and June, 1996. Next, it was important to find out how much evidence there was in Inuvik regarding active sniffing. To this end, the workers gathered evidence of sniffing and identified some of the locations in the Inuvik area where these activities were taking place. In the next phase of the project, initial contact was made with the schools regarding the giving of presentations to both students and teachers. A tentative Solvent Abuse Education package was developed. This package was used to conduct 15 presentations in different classrooms at both schools in Inuvik during the week of November 18 to 22 (National Addictions Awareness Week). Data collection included questionnaires to businesses, schools, and law enforcement and medical personnel within the Town of Inuvik. The questions focussed on the community organizations and agencies knowledge of solvent abuse in the community. The questionnaire responses were incorporated into a final report. This information package was distributed throughout the entire community.

219 Social Sciences

Tanaka, Katsuyuki
201 Heiz MSS
2-40-11 Kamiigusa
Suginami-ku, Tokyo, 167 Japan

Reference No: 12 410 536 (ARI)
Region: SA Location: Fort Good Hope
Year of Research: 1997
Other members of team: self

The Origin of the Masuzumi Family

The researcher stayed in Fort Good Hope from July 21-August 19, 1997 where he researched the origins of the Masuzumi family, focussing most closely on the life of Hiroki Masuzumi. The researcher stayed with one of Hiroki's grandson's, Alfred Masuzumi, and listened to the details of Hiroki's life and how he came to live in Fort Good Hope. The researcher also stayed in a Fish Camp in order to experience how Hiroki had lived. This research trip was designed as a "fact finding" mission and does not constitute enough to fill up a biography, but the work will continue in future years.

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220 Social Sciences

Wade, Bill
South Slave Research Centre
Box 45
Fort Smith, NT X0E 0P0

Reference No: 12 410 529 (ARI)
Region: ALL Location: Inuvik, Yellowknife, Ft. Smith, Ft. Resolution, Ft. Rae, Ft. Good Hope, Ft. Simpson, Hay River
Year of Research: 1997
Other members of team: self

Distance Education Strategy - Aurora College 1997-2000

The research involved collecting baseline data from previous and current distance education initiatives that the College has been engaged in, and examining strategies employed by other educational organizations. In addition, a needs assessment was conducted in order to identify opportunities for program delivery via distance education technology.

221 Social Sciences

Zimmerman, Dennis
Room 124 Johnston Hall
USRPD, University of Guelph
Guelph, ON N1G 2W1

Reference No: 12 410 534 (ARI)
Region: IN Location: Inuvik, Tuktoyaktuk, Sachs Harbour
Year of Research: 1997
Other members of team: self

Organizational Constraints and Opportunities of Entrepreneurial Tourism Activity in the Western Arctic
The research was designed to provide a potential "streamlined" model for the application and approval process of tourism entrepreneurs in the Western Arctic. The researcher was based in Inuvik. Data collection included literature and document review, key informant interviews, participant observation, and personal journal. The researcher conducted approximately 20 interviews with government officials, aboriginal representatives (Inuvialuit), and local entrepreneurs. Informed consent was obtained through the use of consent forms. The research was intended to be utilized by the bodies responsible for small business development and tourism planning. The results of the implementation plan will be incorporated into a regional tourism plan for the Inuvialuit Settlement Region.

Traditional Knowledge

222 Traditional Knowledge

Clayton, Deena
Department of Geography
University of Calgary
2500 University Dr. N.W.
Calgary, AB T2N 1N4

Reference No: 12 410 531 (ARI)
Region: IN Location: Inuvik
Year of Research: 1997
Other members of team: self

The Incorporation of Gwich'in Traditional Environmental Knowledge into a Knowledge Support System
This research used a case based reasoner (CBR) to develop a traditional environmental knowledge base for the Gwich'in Nation of the Northwest Territories. A prototype was developed, on a stand-alone machine and on the Internet, to assist Gwich'in resource managers with decision-making by incorporating the knowledge from interviews with Gwich'in elders into a CBR. Resource managers were able to search the prototype by entering a query, answering a series of interactive questions, and receiving appropriate response through the CBR. On a stand-alone machine, the CBR responses include scripts which launch images created in a geographic information system (GIS). This allows the user access to descriptive data from the interviews, as well as spatial data in the GIS images. Access on a stand-alone machine is limited due to a number of technical factors and costs, but integration of the knowledge base with GIS on the Internet offers potential solutions which should be further explored in the future.

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223 Traditional Knowledge

Fehr, Alan
Inuvik Research Centre
Box 1430
Inuvik, NT X0E 0T0

Reference No: 12 410 535 (ARI)
Region: IN Location: Dempster Highway and Mary Kendi's camp
Year of Research: 1997
Other members of team: Alestine Andre, Elders

Gwich'in Ethnobotany Project
Elders, students, and researchers worked together to document the food value and medicinal use of plants. Each month, elders from each community (Aklavik, Fort McPherson, Inuvik, and Tsiigehtchic) spent two days collecting and preserving plants. The students and researchers assisted them, plus photographed the plants and recorded Elder's comments about each plant. After each field trip, the specimens were pressed and then mounted on cardboard. The collections are now being organized into kits for use in schools. A report of the Elders information and photographs will be prepared.

224 Traditional Knowledge

Legat, Allice
Gagos Social Analysts
4706-38th St.
Yellowknife, NT X1A 1J5

Reference No: 12 410 537 (ARI)
Region: NS Location: Fort Rae
Year of Research: 1997
Other members of team: Sally Ann Zoe, Madelaine Chocolate, Georgina Chocolate, Bobby Gon

Caribou Habitat Project and Placenames Habitat Project
Researchers interviewed elders throughout the Dogrib region. Interviews were taped, translated, and transcribed. Data was collected using the participatory action research (PAR) method which ensured Dogrib ownership and direction of the project and provides researchers with research skills. Researchers were being trained in GIS/database installation. The project was conducted under the authority of the Community Elder's Committee, and the final report will be read to the Committee for verification. Copies of the final report will be forwarded to all Dogrib schools. Both projects are still in progress.

Prince of Wales Northern Heritage Centre
Archaeology Permits

225 Archaeology
Bussey, Jean
Points West Heritage Consulting Ltd.
Langley, BC

Reference No: 97-852 (PWNHC)
Region: NS Location: LeNt-6, LdNs-17, LdNs-16, LdNs-18 (North of Lac de Gras)
Year of Research: 1997

BHP Diamonds Archaeological Project
This was the fourth year of archaeological investigations for BHP Diamonds Inc. in their claim block north of Lac de Gras. The emphasis of the investigations was to survey areas near proposed developments and exploration. To the previous 87 sites, 30 new sites were added and the locations of 94 sites were accurately determined using a Global Positioning System (GPS) to ensure that site boundaries can be identified and avoided, even under snow cover. Excavations were conducted at three sites which were threatened by the development of an open pit mine. All sites were characterized by unworked stone flakes of varying sizes and concentrations, and the majority of the sites were associated with eskers and esker remnants The sites known as LdNs-16, 17, and 18 were all located near the road and camp of the proposed open pit mine. Excavations at these sites yielded varying quantities of lithic material, primarily unworked quartzite. Analysis of these materials will be undertaken during the winter.

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226 Archaeology
Fedirchuk, Gloria
Fedirchuk McCullough Associates Ltd.
Calgary, AB

Reference No: 97-857 (PWNHC)
Region: NS Location: Eastern Lac de Gras
Year of Research: 1997

Diavik Project -- Archaeological Impact Assessment of Additional Potential Facility Sites
An archaeological impact assessment of a small group of islands within the proposed Diavik Diamond Mines Inc. area was conducted with the assistance of two Yellowknives Dene and an interpreter. Three larger and four smaller islands were examined for signs of previous occupation and use, but neither archaeological nor historical sites were identified during the field visit.

227 Archaeology

Hanks, Christopher
BHP Diamonds Inc.
Yellowknife, NT

Reference No: 97-853 (PWNHC)
Region: NS Location: Paul Lake to Lac du Sauvage
Year of Research: 1997

BHP Archaeological Management Programme

This was part of the site management programme for the Ekati Diamond mine. Short surveys were conducted to investigate proposed changes in the footprint of the mine, but also to deal with the possibility of a previously unrecorded site being discovered. Before beginning any investigations, the Prince of Wales Northern Heritage Centre was notified. A joint project was also conducted with the Yellowknives Dene Traditional Knowledge Study. BHP staff worked with Yellowknives Dene elders to examine a site they traditionally used at Pointe de Misère on Lac de Gras, and to confirm the location of a grave remembered by Elders near the narrows of Lac du Sauvage.

228 Archaeology

Hart, Elisa
Heritage Research Services
Yellowknife, NT

Reference No: 97-849 (PWNHC)
Region: IN Location: Mackenzie Delta (Kitigaaryuit, Kitigaaryuat, and Kugatchiak)
Year of Research: 1997

Kitigaaryuit Cultural Mapping Project - 1997

The Kitigaaryuit Archaeological Inventory and Mapping project of 1997 consisted of a number of different components. A 9 km survey of the coast west of the village of Kitigaaryuit was conducted. Within the survey area were located 67 log graves, three recent camps, a reindeer corral, and a number of isolated artifacts and faunal remains. The remains of an occupation area previously located by Robert McGhee was relocated and may correspond to the old village of Sanmiraq, according to Tuktoyaktuk elders. Further work carried out at Kitigaaryuit consisted of sample verification of the maps created from the 1996 survey data, the location of cultural remains that were missed in 1996, as well as the identification of new remains. Appreciation is extended to Steve Soloman of the Geological Survey of Canada and Don Gardner. The oral traditions research continued under the guidance of Cathy Cockney and interpreter Florence Nasogaluak with the assistance of Tuktoyaktuk elders. Thanks are also extended to Alan Fehr and Les Kutny of the Aurora Research Institute for their inventory of the plants found on different parts of the site.

229 Archaeology

Mason, Andrew
Golder Associates Ltd.
Burnaby, BC

Reference No: 97-855 (PWNHC)
Region: IN Location: North of Reindeer Station to Inuvik, along the East Channel
Year of Research: 1997

Ikhil Gas Development -- Archaeological Investigations

The Inuvialuit Petroleum Corporation (IPC) is planning to develop the Ikhil Gas Reservoir to supply natural gas to the Town of Inuvik. An impact assessment of the existing Ikhil wellsite, a winter access trail, two proposed wellsites, and a gas pipeline right-of-way located north of Inuvik. Areas with high archaeological potential, such as well-drained ground, lake shore, and the leading edge of terraces, were all traversed. The entire winter trail was also surveyed as were the three wellsites and the production facilities area. Test pits of targeted areas were shovelled down to the permafrost, but no sites were located in the project area. Two previously recorded sites (NeTs-2 and 4) were revisited, and a historic camp was discovered along the pipeline right-of-way. The historic camp is slightly off the right-of-way and will not be disturbed.

230 Archaeology

Ronaghan, Brian
Golder Associates Ltd.
Calgary, AB

Reference No: 97-856 (PWNHC)
Region: NS Location: Damoti Lake
Year of Research: 1997

Damoti Lake Gold Project - An Archaeological Assessment

A small underground gold mine on the southwest shore of Damoti Lake has been examined for sites of archaeological and cultural interest. The proposed facilities include a small surface plant, a camp, two access roads, an airstrip, a tailings area, and a source of sand for building on a small island in the lake. The archaeological investigations yielded 4 small sites on an esker on this island. They consisted of small amounts of scattered stone flakes, primarily of the commonly occurring white quartz in the area. The first site is on a high ridge, two are on the exposed sand of the eskers at the south end, and the last is along the west shore of the island. No sites were found on the mainland, where most of the construction will take place, and no sites of importance to the local communities were identified. The good supply of fish in the lake and the fact that the caribou herd migrates past this island in spring explains why precontact peoples favoured this island over the mainland.

231 Archaeology

Toews, Stephen
Parks Canada
Winnipeg, MB

Reference No: 97-851 (PWNHC)
Region: IN Location: Lower Thomsen River and coast of Aulavik National Park Reserve
Year of Research: 1997

Thomsen River Cultural Resources Survey

This project was the third year of a three-year non-intrusive survey developed by Parks Canada together with the community of Sachs Harbour. The survey is designed to provide a comprehensive inventory and assessment of all sites within the Park boundary, particularly those sites near the Thomsen River. Other objectives included the evaluation of each sites condition and vulnerability, as well as the establishment of a monitoring program to be implemented by Parks Canada in future years. Approximately 33 previously unrecorded sites were added to the inventory. They were mainly short term seasonal camp or cache sites, although some were fairly substantial, and they were most likely occupied by Innuinait or Copper Inuit. Three previously recorded sites were revisited and their monitoring programs were established. In total, 262 archaeological sites in the Aulavik National Park Reserve have been located and recorded.

Department of Resources, Wildlife & Economic Development
Wildlife Research Permits

232 Wildlife
Adamczewski, Jan
Biologist
Sahtu Renewable Resources Board
Box 490
Norman Wells, NT X0E 0V0

Reference No: 1555 (RWED)
Year of Research: 1997
Location: Fort Good Hope, near Shale Lake (Norman Wells area), near Dark Rock Creek (Tulita area)

Community Based Population Monitoring of Dall's Sheep in the Sahtu
Large Mammals, Dall's Sheep
The researchers did ground based classification surveys of Dall's sheep.

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233 Wildlife
Alisauskas, Dr. Ray T.
Biologist
Canadian Wildlife Service
115 Perimeter Road
Saskatoon S7N 0X4

Reference No: 994 (RWED)
Year of Research: 1997
Location: Banks Island #1 Migratory Bird Sanctuary

Productivity of Lesser Snow Geese on Banks Island
Waterfowl, Lesser Snow Geese
The population size and productivity of lesser snow geese on Banks Island was determined through aerial surveys, and ground methods were used to survey nests. Also, 25 female snow geese were collected. Observations were made of predators and their effects on the geese. Habitat alteration by geese was also documented.

234 Wildlife

Attew, Jason
Field Supervisor
Canamera Geological Ltd.
Suite 650 - 220 Cambie Street
Vancouver, BC V6B 1M9

Reference No: 1534 (RWED)
Year of Research: 1997
Location: Jericho Diamond Project area north of Contwoyto Lake

Wildlife Baseline Studies in Area of Jericho Project and Transportation Routes
Mammals, Birds
Aerial reconnaissance and ground truthing were carried out in order to document wildlife distribution and abundance in the Jericho project area and transportation routes. Important habitat areas were identified.

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235 Wildlife

Austin, Jane
Wildlife Research Biologist
USGS Biological Resources Division
Northern Prairie Science Centre
8711 37th St. SE
Jamestown, ND 58401

Reference No: 993 (RWED)
Year of Research: 1997
Location: Rae, Providence, Smith, Resolution, Cambridge, Queen Maude, Hay River

Delineation of Sandhill Crane Subspecies and Their Distributions
Birds, Sandhill Crane
A maximum of two cranes were collected from each site for morphological classification and subspecies delineation.

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236 Wildlife

Balsillie, Don
Chief
Deninu Kue First Nation
PO Box 1899
Fort Resolution, NT X0E 0M0

Reference No: 1558 (RWED)
Year of Research: 1997
Location: Hook Lake area of Slave River lowlands

Hook Lake Bison Genetics Research
Large Mammals, Bison
Hair and tissue samples were collected from four Hook Lake bison harvested by Ft. Resolution hunters and used in evaluation of genetic makeup of the Hook Lake herd.

237 Wildlife

Bradley, Mark
Regional Biologist
Resources, Wildlife, and Economic Development
Government of the Northwest Territories
Box 390
Fort Smith, NT X0E 0P0

Reference No: 1562 (RWED)
Year of Research: 1997
Location: Fort Providence study area

Fort Providence Moose Census
Large Mammals, Moose
A standard aerial survey was conducted in order to estimate population size of moose within the Fort Providence study area, specifically in the Mills Lake-Mink Lake area.

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238 Wildlife

Bradley, Mark
Regional Biologist
Resources, Wildlife, and Economic Development
Fort Smith, NT X0E 0P0

Reference No: 1538 (RWED)
Year of Research: 1997
Location: Along Slave River near Fort Resolution

Slave River Biodiversity Study
Birds,
Bird abundance was monitored and vegetation plots were studied.

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239 Wildlife

Branigan, Marsha
Wolf/Bear Biologist
Resources, Wildlife, and Economic Development
Bag Service #1
Inuvik, NT X0E 0T0

Reference No: 1525 (RWED)
Year of Research: 1997
Location: Anderson - Horton Rivers area

Grizzly Reproductive Rates and Cub Survival in Anderson-Horton Rivers Area
Large Mammals, Grizzly Bear
Collared grizzly bears were located from aircraft and immobilized in order to remove collars for conclusion of this study.

240 Wildlife

Bromley, Robert G.
Waterfowl Biologist
Resources, Wildlife, and Economic Development
Wildlife and Fisheries Division
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 988 (RWED)
Year of Research: 1997
Location: Walker Bay area of Kent Peninsula

Waterfowl of the Central Arctic
Birds, Geese, Ducks, Swan
The productivity of geese and swans was determined and a sample of plants and insects was collected.

241 Wildlife

Buckland, Laurie
Environmental Assessment Biologist
Golder Associates Ltd.
Postal Service 9600, Box 255
Yellowknife, NT X1A 2R3

Reference No: 1511 (RWED)
Year of Research: 1997
Location: Anteater Lake, North of Inuvik Lake in "Esker Project" area

Environmental Baseline Study, Esker Project Northwest Territories
Mammals, Birds
The wildlife use of the area was documented prior to any future mine development. The wildlife examined included caribou, grizzly bear, furbearers, and raptors. Their distribution, abundance and movements were also investigated.

242 Wildlife

Case, Ray
Manager, Technical Support
Resources, Wildlife, and Economic Development
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 998 (RWED)
Year of Research: 1997
Location: Slave Geological Province

Population Ecology of Grizzly Bears in the Slave Geological Province
Large Mammals, Grizzly Bear
This study forms part of the grizzly bear population, habitat use, and nutrition research in Slave Geological Province. Thirty bears were captured and fitted with satellite telemetry collars to be tracked along with those from 1996. The collars from 1995 were removed.

243 Wildlife

Case, Ray
Manager, Technical Support
Resources, Wildlife, and Economic Development
600, 5102 - 50th Ave
Yellowknife, NT X1A 3S8

Reference No: 972 (RWED)
Year of Research: 1997
Location: Calais Lake, Mackenzie Bison Sanctuary

Mackenzie Bison Sanctuary Lynx Study
Furbearers, Lynx
As part of multi-year lynx study, lynx were captured, marked, and released.

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244 Wildlife

Caswell, Dale
Chief, Migratory Birds Division
Canadian Wildlife Service, Prairie and Northern Region
525 - 269 Main St.
Winnipeg, MB R3C 1B2

Reference No: 1539 (RWED)
Year of Research: 1997
Location: Dewey Soper Migratory Bird Sanctuary on West Baffin Island

Habitat Mapping and Assessment of Dewey Soper Migratory Bird Sanctuary
Habitat, Wetland Vegetation
Habitat mapping was carried out using LANDSAT TM and RADARSAT SAR imagery and ground sampling

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245 Wildlife

Caswell, Dale
Chief, Migratory Birds Division
Canadian Wildlife Service, Prairie and Northern Reg.
525 - 269 Main St.
Winnipeg, MB R3C 1B2

Reference No: 1540 (RWED)
Year of Research: 1997
Location: West Hudson Bay - Manitoba border to Whale Cove; West Baffin - Cape Dominion to Koukdjuak River

Distribution and timing of fall migration of TGP Canada, Ross and snow geese
Watefowl, Canada Goose, Ross Goose, Snow Goose
Ross and snow geese were banded and collared in order to study their distribution and migration chronology.

246 Wildlife

Caswell, Dale
Chief, Migratory Birds Division
Canadian Wildlife Service, Prairie and Northern Region
525 - 269 Main St.
Winnipeg, MB R3C 1B2

Reference No: 1541 (RWED)
Year of Research: 1997
Location: West Hudson Bay, Geillini River to Wallace River

Role of Snow Goose in Changes to Coastal Wetland Habitats
Habitat, Snow Goose, Ross Goose, Wetland Vegetation
Changes in West Hudson Bay coastal wetland habitat were monitored in response to changes in snow goose populations.

247 Wildlife

Caswell, Dale
Chief, Migratory Birds Division
Canadian Wildlife Service, Prairie and Northern Reg.
525 - 269 Main St.
Winnipeg, MB R3C 1B2

Reference No: 1542 (RWED)
Year of Research: 1997
Location: West Hudson Bay - Manitoba border to Dawson Inlet

Role of Climate Change and Uplift in Destruction of Coastal Wetlands
Habitat, Snow Goose, Ross Goose, Wetland Vegetation
This study was designed to research the role of climate change and isostatic rebound in the changes to West Hudson Bay coastal wetland habitat.

248 Wildlife

Caswell, Dale
Chief, Migratory Birds Division
Canadian Wildlife Service
525 - 269 Main Street
Winnipeg, MB R3C 1B2

Reference No: 1529 (RWED)
Year of Research: 1997
Location: West Hudson Bay - Thaane River to Arviat

Ground Truthing of Goose Colonies for Aerial Photo Census in Area
Waterfowl, Ross Goose, Lesser Snow Goose
Ground surveys were conducted of lesser snow geese and Ross geese in order to assess the ratios of the two species nesting in colonies south of Arviat. These surveys will enable later photo surveys to estimate each species.

249 Wildlife

Chetkiewicz, Cheryl
Biologist
Gwich'in Renewable Resource Board
Box 2240
Inuvik, NT X0E 0T0

Reference No: 1531 (RWED)
Year of Research: 1997
Location: Inuvik-Tsiigehtchic area

Moose Habitat Assessment Project
Large Mammals, Moose
A preliminary vegetation classification for study area was carried out, as well as a winter browse survey. Snow measurements were taken, and hunter/kill samples were collected for research in the diet, condition, age, sex, and genetics of moose in the study area.

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250 Wildlife

Cluff, Dean
Regional Biologist, North Slave
Resources, Wildlife, and Economic Development
Box 2668
Yellowknife, NT X1A 2P9

Reference No: 999 (RWED)
Year of Research: 1997
Location: Slave Geological Province - Lac de Gras, Lupin mine area

Analysis of Esker Use by Wolves Denning in the Central Arctic, NWT
Large Mammals, Wolf
Eskers were surveyed for wolf dens, and wolves were collared at 12 dens in order to monitor their movements

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251 Wildlife

van de Groot, Peter J.
PhD candidate
Queens University
Department of Biology
Kingston, ON K7L 3N6

Reference No: 974 (RWED)
Year of Research: 1997
Location: Pan arctic

Microsatellite Variation in Muskoxen
Large Mammals, Muskox
Muscle samples were collected from hunter killed muskox and analysed for genetic structure as part of a study of evolutionary divergence and variation among muskox.

252 Wildlife

Dickson, Lynne
Biologist
Canadian Wildlife Service
Room 200, 4999-98 Avenue
Edmonton, AB T6B 2X3

Reference No: 1520 (RWED)
Year of Research: 1997
Location: Kagloryuak River valley on Victoria Island

Satellite Telemetry to Find Moulting and Winter Areas of Victoria Island King Eiders
Birds, King Eiders
Satellite transmitters were implanted in 10 king eiders in Kagloryuak River valley and tracked to their moulting and wintering areas.

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253 Wildlife

Dickson, Lynne
Biologist
Canadian Wildlife Service
Room 200, 4999-98 Avenue
Edmonton, AB T6B 2X3

Reference No: 1521 (RWED)
Year of Research: 1997
Location: Coronation Gulf, Bathurst Inlet, Melville Sound, Elu Inlet, Queen Maude Gulf, Dolphin and Union Strait

Distribution and Abundance of Pacific Common Eiders in the Central Arctic
Birds, Pacific Common Eider
The size of the breeding population of Pacific common eiders in Central arctic was estimated, and nests were sought on islands where colonies are known to exist.

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254 Wildlife

Dickson, Lynne
Biologist
Canadian Wildlife Service
Room 200, 4999-98 Avenue
Edmonton, AB T6B 2X3

Reference No: 995 (RWED)
Year of Research: 1997
Location: Holman Island and northwest of Holman

Eider Migration and Harvest at Holman
Birds, King Eider, Pacific Common Eider
Eiders migrating near Holman were surveyed and characteristics of the harvest were studied.

255 Wildlife

Ferguson, Michael A.D.
Regional Biologist, Baffin
Resources, Wildlife, and Economic Development
Pond Inlet, NT X0A 0S0

Reference No: 1522 (RWED)
Year of Research: 1997
Location: Northern Baffin Island

Variability in Calving by North Baffin Caribou
Large Mammals, Caribou, Wolves
Aerial surveys were carried out for calving caribou, and dead caribou specimens were collected and necropsied. Evidence of wolves in the Pond Inlet area of North Baffin was also recorded.

256 Wildlife

Gaston, A.J.
Biologist
Canadian Wildlife Service
100 Gamelin Boulevard
Hull, PQ K1A 0H3

Reference No: 1551 (RWED)
Year of Research: 1997
Location: 5km W of Cape Pembroke, Coats Island

Canadian Wildlife Service Seabird Monitoring Program, North Hudson Bay and Hudson Strait
Birds, Thk-bl murre, GL Gull, Ice. gull,b guillemt
Population numbers and survival were studied, and genetic sampling was carried out for relatedness study.

257 Wildlife

Gates, Dr. Cormack
Bison Ecologist
Resources, Wildlife, and Economic Development
Box 390
Fort Smith X0E 0P0

Reference No: 1547 (RWED)
Year of Research: 1997
Location: Fort Providence area

Population and Disease Monitoring of the Mackenzie Wood Bison Herd
Large Mammals, Bison
The study included a composition survey for bison, as well as field research on anthrax contamination of the bison range. Specimens were collected from hunter-killed bison and analysed for the presence of antibodies to brucella.

258 Wildlife

Gates, Dr. Cormack
Bison Biologist
Resources, Wildlife, and Economic Development
Box 390
Fort Smith, NT X0E 0P0

Reference No: 977 (RWED)
Year of Research: 1997
Location: Hook Lake and Fort Resolution

Salvage and Propagation of Hook Lake Wood Bison
Large Mammals, Bison
Twenty newborn bison calves from the Hook Lake herd were captured and hand reared. They were treated for diseases in order to maintain the captive breeding herd in Fort Resolution.

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259 Wildlife

Gauthier, Dr. Giles
Professor
Universite Laval
Department of Biology
Ste-Foy G1K 7P4

Reference No: 984 (RWED)
Year of Research: 1997
Location: South West Bylot Island

Breeding Ecology of Greater Snow Geese and Interaction with Their Habitat.
Birds, Greater Snow Goose, Snowy Owl, Arctic FOx, Lemming, Longspur
This project is part of long term study of gosling growth and survival, the effects of fox predation on goose population, and the effect of geese on their habitat.

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260 Wildlife

Gilchrist, Grant
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1533 (RWED)
Year of Research: 1997
Location: Coburg Island

Comp studies of seabird foraging & repro ecol at Northwater polynya
Birds, Thick-billed Murre, Black-Legged Kittiwake
Thick-billed murre and black-legged kittiwake foraging and reproductive ecology on Coburg Island.

261 Wildlife

Gilchrist, Grant
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1537 (RWED)
Year of Research: 1997
Location: South Baffin between Cape Dorset and Lake Harbour

Distribution and Abundance of Common Eider off South Baffin Island
Birds, Northern Common Eider
The breeding population of common eiders on and near south Baffin Island was censussed, and hunters were interviewed about the population.

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262 Wildlife

Gilchrist, Grant
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1530 (RWED)
Year of Research: 1997
Location: Belcher Islands

Population Studies of the Hudson Bay Common Eider in the Belcher Islands, 1997
Birds, Common Eider
The breeding population of common eiders on the Belcher Islands was censussed and hunters were interviewed about the population.

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263 Wildlife

Gilchrist, Grant
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1506 (RWED)
Year of Research: 1997
Location: East Bay area of Southampton Island

Population Studies of King and Common Eiders in East Bay, Southampton Island
King Eider, Common Eider
Adult survival, philopatry, migration, and reproductive ecology of king and common eiders in East Bay was studied.

264 Wildlife

Golder Associates,
Golder Associates Ltd.
Postal Service 9600
Box 255
Yellowknife, NT X1A 2N3

Reference No: 1553 (RWED)
Year of Research: 1997
Location: Thor Lake project area

Environmental Baseline Study, Thor Lake Beryllium Deposit, NWT
Large Mammals, Birds, Caribou, Moose, Raptors
Environmental baseline wildlife studies were carried out in order to document wildlife use of the project area prior to any mine development. The distribution, abundance, and habitat use of caribou, moose, and raptors was investigated as well.

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265 Wildlife

Gunn, Dr. Anne
Ungulate Biologist
Resources, Wildlife, and Economic Development
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 987 (RWED)
Year of Research: 1997
Location: Rae, Kugluktuk, Umingmaktok, Cambridge Bay, Snare Lakes, Wha Ti, Rae Lakes, Lutsel k'e

Movements of the Bathurst Caribou Herd
Large Mammals, Caribou
Collared caribou were located, the caribou distribution around them was described, and the movements of satellite collared caribou were mapped.

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266 Wildlife

Gunn, Dr. Anne
Ungulate Biologist
Resources, Wildlife, and Economic Development
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 986 (RWED)
Year of Research: 1997
Location: Lutsel k'e, Gjoa Haven, Umingmaktok, Cambridge Bay

Movements of Queen Maude Gulf Caribou.
Large Mammals, Caribou
The movements of adult female caribou collared in 1996 were tracked by aerial methods.

267 Wildlife

Gunn, Dr. Anne
Ungulate Biologist
Resources, Wildlife, and Economic Development
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 1512 (RWED)
Year of Research: 1997
Location: Bathurst caribou calving ground

Bathurst Caribou Calving Distribution and Summer Range Ecology
Large Mammals, Caribou
The distribution of Bathurst caribou on calving grounds was determined, ecological conditions were estimated, and the proportion of breeding females was established using aerial and ground based surveys.

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268 Wildlife

Gunn, Dr. Anne
Ungulate Biologist
Resources, Wildlife, and Economic Development
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 1519 (RWED)
Year of Research: 1997
Location: Lupin mine.

Bathurst Caribou Behaviour at Lupin Mine
Large Mammals, Caribou
Caribou behaviour at the mine site was described and traditional techniques that might guide caribou away from tailings ponds and airstrips were tested.

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269 Wildlife

Gunn, Anne
Ungulate Biologist
Resources, Wildlife, and Economic Development
600, 5102 - 50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 1548 (RWED)
Year of Research: 1997
Location: Melville, Prince Patrick and Bathurst Islands

Melville, Prince Patrick and Bathurst Islands Caribou and Muskox Survey
Large Mammlas, Peary Caribou, Muskox
Aerial surveys of the islands were made in order to determine the abundance of Peary caribou and muskox.

270 Wildlife

Hanks, Chris
Senior Environmental Specialist
BHP Diamonds Inc.
1102 4920-52 Street
Yellowknife, NT X1A 3T1

Reference No: 1514 (RWED)
Year of Research: 1997
Location: Lac de Gras, BHP diamond project area

Wildlife Monitoring Program - 1997
Mammals, Birds
Wildlife monitoring under Environmental Agreement.

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271 Wildlife

Henry, Dr. Greg
Associate Professor
University of British Colombia
1984 West Mall
Department of Geography
Vancouver, BC V6T 1Z2

Reference No: 1546 (RWED)
Year of Research: 1997
Location: Rideout Island, islands in Surrey and Pellatt lakes

Long Term Recovery of Arctic Plants After Heavy Grazing
Habitat, Dwarf Birch, Willow, Heather
The recovery of vegetation grazed heavily by caribou or muskoxen was monitored.

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272 Wildlife

Hines, James E.
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 973 (RWED)
Year of Research: 1997
Location: Tuktoyaktuk Peninsula, deltas of the Anderson, Kugulak, and Smoke/Moose Rivers, Campbell Island

Distribution, Abundance, and Survival of Pacific Brant from Mainland of Inuvialuit Settlement Region
Birds, Black Brant
The distribution of black brant from mainland of Inuvialuit Settlement Region was determined, as well as their annual survival rates. The abundance and productivity of mainland brant was also established, and 600 white-fronted geese were banded in order to complete a 6 year project studying them.

273 Wildlife

Hines, James E.
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1517 (RWED)
Year of Research: 1997
Location: Yellowknife study area (Rae highway from 15km to 45km out of Yellowknife, 400m each side)

Abundance and Productivity of Waterfowl Breeding in the Boreal Forest
Waterfowl, Ducks, Loons, Grebes
A determination was made of the factors that limit the size, composition, and productivity of the breeding populations of ducks in the Yellowknife study area. This information was used to improve and develop new survey designs for censussing duck populations.

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274 Wildlife

Holder, Karen
PhD. Candidate
Queen's University
Department of Biology
Kingston, ON K7L 3N6

Reference No: 1523 (RWED)
Year of Research: 1997
Location: Resolute, Cornwallis Island, Polar Bear Pass, Bathurst Island, Alexander Fjord, Eureka, Ellesmere Island

Evolutionary Divergence of North American Rock Ptarmigan
Birds, Rock Ptarmigan
Blood was collected from live ptarmigan, or tissue was salvaged from dead ptarmigan. These samples were used to study rock ptarmigan genetics, part of North America wide study of the evolutionary divergence of rock ptarmigan.

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275 Wildlife

Hubert, Ben
Project Leader
Hubert and Associates Ltd.
Box 277
Yellowknife, NT X1A 2N2

Reference No: 1526 (RWED)
Year of Research: 1997
Location: Ulu mine area and winter road route connecting to Lupin

Wildlife Monitoring in Area of Ulu Mine Site and Related Winter Road
Large Mammals, Birds, Caribou, Grizzly Bear, Raptors
Wildlife activity and abundance in the Ulu mine area, and along the winter road route from there to Lupin mine, was monitored and documented.

276 Wildlife

Johnston, Victoria
Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 1528 (RWED)
Year of Research: 1997
Location: Prince Charles, Air Force, and Foley Islands

Bird Distribution and Abundance in Northwest Foxe Basin
Shorebirds, Waterfowl, Gulls
The distribution and abundance of shorebirds, waterfowl, and other migratory birds in the Northwest Foxe Basin was determined, and the preferred habitat of migratory birds in this area was also established. Background information for the potential designation as a protected area was provided.

277 Wildlife

Kay, Dave
NWT Manager
Ducks Unlimited, Canada
Box 1438
Yellowknife, NT X1A 2P1

Reference No: 979 (RWED)
Year of Research: 1997
Location: The Ramparts-Hume River Basin

Distribution, Abundance, and Nesting Success of Waterfowl in the Ramparts-Hume River Basin
Waterfowl,
The distribution, abundance, and reproductive success of boreal forest waterfowl in the Ramparts-Hume River Basin was determined through the use of traditional knowledge interviews and aerial, canoe, and ground surveys.

278 Wildlife

Kershaw, Dr. G.P.
Associate Professor
University of Alberta
Earth and Atmospheric Sciences
1 - 26 Earth Sciences Building
Edmonton, AB T6G 2E3

Reference No: 1536 (RWED)
Year of Research: 1997
Location: SEEDS research site near Tulita

Studies of the Environmental Effects of Disturbances in the Subarctic
Small Mammals,
The project was part of the SEEDS ecosystematic study of disturbances in subarctic. Small mammals were live trapped and marked for later recapture and identification.

279 Wildlife

Krebs, Charles J.
Professor of Zoology
University British Columbia
Department of Zoology
6270 University Boulevard
Vancouver, BC V6T 1Z4

Reference No: 991 (RWED)
Year of Research: 1997
Location: Anderson River, Breakwater Island, Cockburn Island, Hope Bay, Horton River DEW line site, Hurd Island, Inuvik, Jameson Islands, Nicholson Point, North Star Harbour, Tuktoyaktuk, Walker Bay, Wilmot Island

Brown Lemming, Collared Lemming, rb and tundra Vole
The timing of lemming cycles west and east of the Mackenzie River was studied in order to find out how lemming cycles in the Cambridge Bay area are synchronized with those in the west.

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280 Wildlife
Kutz, Susan
A/Regional Biologist
Resources, Wildlife, and Economic Development
Kugluktuk, NT X0E 0E0

Reference No: 1556 (RWED)
Year of Research: 1997
Location: Mainland Keewatin, Sahtu, and Inuvialuit regions.

Survey Keewatin, Sahtu, and Inuvialuit Regions for Muskox Lungworm.
Large Mammlas, Muskoxen, Barren Ground Caribou, Moose, Dall's Sheep
A determination was made of the geographic and species range of *Umingmakstrongylus pallikuukensis* in mainland Keewatin, Sahtu, and Inuvialuit regions through the examination of specimens from hunter kills of muskoxen, caribou, moose, and Dall's sheep.

281 Wildlife

Larter, Nicholas
Muskox/Caribou Biologist
Resources, Wildlife, and Economic Development
Bag Service #1
Inuvik, NT X0E 0T0

Reference No: 1509 (RWED)
Year of Research: 1997
Location: Banks Island

Banks Island Range Study
Large Mammals, Small Mammals, Muskox, Peary Caribou, Hare, Lemming
Banks Island muskox and caribou research on diet, vegetation and habitat analysis was carried out, in addition to the monitoring of snow conditions. The health and condition of animals was monitored by analysing urine samples collected non-invasively. Samples from dead or harvested caribou and muskox were collected, and hare, lemming, and any other animals that appeared critically ill were also collected.

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282 Wildlife

Latour, Paul
Habitat Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 981 (RWED)
Year of Research: 1997
Location: Mills Lake

Assessment of Mills Lake Staging Area for Migrating Geese, Swans, and Shorebirds
Birds, Shorebirds, WF, Canada Goose, Snow Goose, Tundra Swan
The abundance and distribution of staging waterfowl and shorebirds at Mills Lake during spring and fall migration was determined, and its importance as a staging area for goose populations was evaluated.

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283 Wildlife

Latour, Paul
Habitat Biologist
Canadian Wildlife Service
Box 637
Yellowknife, NT X1A 2N5

Reference No: 990 (RWED)
Year of Research: 1997
Location: Creswell Bay

Assessment of Creswell Bay, NWT for Future Protected Area Designation.
Waterfowl, Shorebirds, Greater Snow Geese, Sea Ducks
Ground survey methods were used to determine the nesting abundance, distribution, and migration chronology of shorebirds at Creswell Bay. This was part of an assessment of the importance of Creswell Bay to nesting and staging shorebirds and waterfowl, and its potential for designation as a protected area.

284 Wildlife

Lee, John
Wolverine Biologist
Resources, Wildlife, and Economic Development
GNWT
600, 5102-50 Ave.
Yellowknife, NT X1A 3S8

Reference No: 964 (RWED)
Year of Research: 1997
Location: Slave Geological Province - Lac de Gras/Daring Lake/Contwoyto Lakes

Wolverine Ecology in the Central Arctic
Furbearers, Wolverine
Wolverine were trapped and radio collared to determine survival, home ranges, number of young produced, and denning sites. Harvest information was also collected.

285 Wildlife

Mech, Dr. L. David
Project Leader
US Fish and Wildlife Service
North Central Forest Experiment
1992 Folwell Ave.
St. Paul, MN 55108

Reference No: 997 (RWED)
Year of Research: 1997
Location: Eureka area, Ellesmere Island

Behavioural Ecology of an Arctic Wolf Pack
Large Mammals, Small Mammals, Caribou, Muskox, Wolf, Hare
Wolf behaviour was documented through direct observation, video taping, and photography. Minor manipulation was undertaken by presenting baits, odours, and howling. Caching responses of wolves were tested.

286 Wildlife

Melton, Dr. Derek A.
Senior Wildlife Biologist
Golder Associates
10th Floor
940 6th Ave. SW
Calgary, AB T2P 3T1

Reference No: 1559 (RWED)
Year of Research: 1997
Location: Ranger Oil Well sites 1-3 (Nota Creek, Bear Rock, Little Bear River)

Wildlife and Habitat Survey for Ranger Oil Exploratory Drilling in Sahtu
Mammals, Birds
Helicopter and ground surveys were used to carry out the environmental baseline survey of wildlife in vicinity of 3 Ranger Oil exploratory drilling sites near Nota Creek, Bear Rock and north of Little Bear River.

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287 Wildlife

Melton, Dr. Derek A.
Senior Wildlife Biologist
Golder Associates Ltd.
10th Floor
940 6th Avenue SW
Calgary, AB T2P 3T1

Reference No: 1554 (RWED)
Year of Research: 1997
Location: Damoti Lake

Wildlife Survey in Damoti Lake Gold Project Study Area.
Mammals, Birds
Environmental baseline work on wildlife was conducted in the Damoti Lake project area. Surveys were designed to search for wildlife and their signs including droppings, dens, and nests. Surveys were made by boat and on foot to document wildlife use of the area prior to any future mine development.

288 Wildlife

Melton, Dr. Derek A.
Senior Wildlife Biologist
Golder Associates Ltd.
10th Floor
940 6th Avenue SW
Calgary, AB T2P 3T1

Reference No: 1552 (RWED)
Year of Research: 1997
Location: Ikhil Gas Project area near Inuvik

A Wildlife Survey for the Ikhil Gas Project
Mammals, Birds
Environmental baseline work on wildlife in the Ikhil Gas Project area was carried out prior to development. There were on site ground surveys, as well as an analysis of the Inuvialuit Harvest Study data for historic wildlife utilisation in area.

289 Wildlife

Moore, Mr. Steve
Wildlife Biologist
Golder Associates Ltd.
Postal Service 9600
Box 255
Yellowknife, NT X1A 2N3

Reference No: 1563 (RWED)
Year of Research: 1997
Location: Near Fort Liard in the proposed Paramount Resources Gas Project area

Wildlife and Wildlife Habitat Reconnaissance
Mammals, Birds
Mammal and bird use of the area was documented through track surveys and direct observation. Habitat in vicinity of proposed drill locations was also described.

290 Wildlife

Morris, Douglas W.
Project Leader
Lakehead University
Department of Biology and Forestry
Thunder Bay, ON P7B 5E1

Reference No: 1524 (RWED)
Year of Research: 1997
Location: Walker Bay camp on Kent Peninsula and Hope Bay

Habitat Selection and Competition Among Arctic Rodents
Small Mammals, Arctic Rodents
A study was made of the habitat selection and competition among arctic rodents. Rodent density in different habitats was estimated and analysed for habitat selection and interspecific competition.

291 Wildlife

Morrison, Dr. R.I.G.
Research Scientist, Shorebirds
Canadian Wildlife Service
National Wildlife Research Ctr
100 Gamelin Blvd.
Hull, PQ K1A 0H3

Reference No: 1543 (RWED)
Year of Research: 1997
Location: Alert, Ellesmere Island

Studies of Migration, Ecophysiology, and Energetics of High Arctic Shorebirds
Shorebirds, Other Birds
Migration strategies, ecophysiology, and energetics of high arctic shorebirds was studied. This included banding birds to monitor weight changes, abdominal profiling, radio tracking, and general bird observations.

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292 Wildlife
Mueller, Fritz
Project Leader
Box 31106
211 Main Street
Whitehorse, YT Y1A 5P7

Reference No: 992 (RWED)
Year of Research: 1997
Location: South East of Umingmaktok and on Western and Eastern sides of Bathurst Inlet

Vegetation and Habitat Characteristics of Bathurst Caribou Calving Area
Large Mammals, Habitat, Caribou, Plants
Biological research on habitat and vegetation on the Bathurst caribou calving ground was continued. Aerial surveys were flown, vegetation and habitat studies were conducted, and caribou behaviour was observed.

293 Wildlife

Muggli, Deborah
Leader, Marine and Aquatic Biology
Rescan Environmental Services Ltd.
6th Flr Coopers & Lybrand Bldg
1111 West Hastings St.
Vancouver, BC V6E 2J3

Reference No: 983 (RWED)
Year of Research: 1997
Location: Doris Lake and Boston property near Hope Bay

Hope Bay Belt Project, Baseline Environmental Studies
Mammals, Birds,
Baseline data on the presence and abundance of wildlife and the degree of habitat use in the Hope Bay area was provided through observation surveys only.

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294 Wildlife

Mulders, Robert
Regional Biologist
Resources, Wildlife, and Economic Development
Box 120
Arviat, NT X0C 0E0

Reference No: 1504 (RWED)
Year of Research: 1997
Location: 80 miles SW of Rankin Inlet

Keewatin Grizzly Bear Study
Large Mammals, Grizzly Bear
The last radio collar from a grizzly bear was removed, and information continued to be collected on the grizzly bear harvest. This study was intended to increase public awareness about this species.

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295 Wildlife

Mulders, Robert
Regional Biologist
Resources, Wildlife, and Economic Development
Box 120
Arviat, NT X0C 0E0

Reference No: 1505 (RWED)
Year of Research: 1997
Location: Within 12 mile radius of Rankin Inlet

Rankin Inlet Peregrine Falcon Study
Raptors, Peregrine Falcon
Population data was collected and pesticide contamination in peregrine falcons was monitored. This was part of the research project designed to establish production and population parameters, determine population growth and mortality rates, and to monitor contamination by pesticides.

296 Wildlife

Mulders, Robert
Regional Biologist
Resources, Wildlife, and Economic Development
Box 120
Arviat, NT X0C 0E0

Reference No: 963 (RWED)
Year of Research: 1997
Location: Southampton Island

Southampton Island Caribou Study
Large Mammals, Caribou
Samples were taken from commercial harvest abattoir and examined. Sixty caribou were collected for sampling. Ground and aerial surveys were conducted for classification and census, and range vegetation studies were done.

297 Wildlife

Mulders, Robert
Regional Biologist
Resources, Wildlife, and Economic Development
Box 120
Arviat, NT X0C 0E0

Reference No: 970 (RWED)
Year of Research: 1997
Location: Qamanirjuaq range, Keewatin District

Qamanirjuaq Caribou Spring Composition and Satellite Collaring
Caribou,
Aerial and ground classification counts were made in order to determine survival and recruitment rates. Six radio collars were recovered and 6 new ones were put on female caribou to obtain information on distribution and timing of movements. Biological specimens from hunter kills or dead or dying caribou were also collected.

298 Wildlife

Nagy, John
Inuvik Wildlife Management Supervisor
Resources, Wildlife, and Economic Development
GNWT
Bag Service #1
Inuvik, NT X0E 0T0

Reference No: 1549 (RWED)
Year of Research: 1997
Location: Banks Island

Banks Island Caribou and Muskox Census
Large Mammals, Peary Caribou, Muskox
A census of muskoxen and Peary caribou on Banks Island was done using aerial survey methods.

299 Wildlife

Nielsen, Ole
Research Biologist
Department of Fisheries and Oceans
501 University Crescent
Winnipeg, MB R3T 2N6

Reference No: 1564 (RWED)
Year of Research: 1997
Location: Pangnirtung polar bear hunting area, Arctic Bay, Resolute, Pond Inlet

Isolation and Characterisation of Brucella Bacteria from Polar Bears
Large Mammals, Polar Bear
Tissue specimens were obtained from hunter killed polar bears for the isolation and analysis of brucella bacteria

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300 Wildlife

Nishi, John
Regional Biologist
Resources, Wildlife, and Economic Development
Bag 200
Kugluktuk, NT X0E 0E0

Reference No: 1518 (RWED)
Year of Research: 1997
Location: Southern Victoria Island and adjacent coastal and mainland areas

Distribution of Caribou Calving on Southern Victoria Island
Large Mammals, Caribou
Aerial surveys and collar location flights were flown over South Victoria Island and adjacent areas. The remaining collared cows were collected in October 1997.

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301 Wildlife

Nishi, John
Regional Biologist, Kitikmeot
Resources, Wildlife, and Economic Development
Bag 200
Kugluktuk, NT X0E 0E0

Reference No: 1516 (RWED)
Year of Research: 1997
Location: Cambridge, Kugluktuk, Holman, Gjoa Haven , Pelly Bay, Taloyoak, Umingmaktok, Bathurst Island

Wildlife Disease and Contaminants in Furbearers, Ungulates, Herbivores, and Raptors
Large Mammals, Small Mammals, Furbearers, Raptors, Muskox, Caribou, Wolf, Wolverine, Fox, Bear, Hare, Raptors
The presence of wildlife diseases and contaminant levels of all wildlife in the Kitikmeot region were monitored and examined.

302 Wildlife

Nishi, John
Regional Biologist, Kitikmeot
Resources, Wildlife, and Economic Development
Bag 200
Kugluktuk, NT X0E 0E0

Reference No: 1510 (RWED)
Year of Research: 1997
Location: Basil Bay area and between Kugluktuk, Bloody Falls, Hope Lake

Larval Development of a Muskox Lungworm in a Terrestrial Slug
Large Mammals, Parasites, Lungworm Larvae, Terrestrial Slug, Muskox
Larval development of muskox lungworms in terrestrial slugs was studied and a determination was made of when they are infective to muskoxen.

303 Wildlife

Penner, David
Wildlife Biologist
Penner & Assoc. Ltd.
3 - 52059, Range Road 220
Sherwood Park, AB T8E 1B9

Reference No: 978 (RWED)
Year of Research: 1997
Location: Lac de Gras area - Diavik project

Wildlife Baseline for the Diavik Diamond Project at Lac de Gras
Large Mammals, Birds, Caribou, Grizzly, Wolf
Ecological features were classified and mapped, and caribou were surveyed and observed. Data was gathered on carnivores, small mammals were surveyed and trapped, and the breeding populations of birds was also surveyed.

304 Wildlife

Pittaway, Lois
Graduate student
University of Calgary
2807 11 Ave. NW
Calgary, AB T2N 1J1

Reference No: 1527 (RWED)
Year of Research: 1997
Location: Wekweti, Snare Lake

Management Plan to Reduce Human-Bear Conflicts in Snare Lake, NWT
Large Mammals, Grizzly Bear, Black Bear
Preventative and deterrent measures to reduce bear interactions with humans at Wekweti were evaluated. There were also observations, discussions, and a literature review.

305 Wildlife

Popko, Richard
Wildlife Technician
Resources, Wildlife, and Economic Development
Box 130
Norman Wells, NT X0E 0V0

Reference No: 1560 (RWED)
Year of Research: 1997
Location: Brackett (Willow) Lake area, Oscar Lake, Ramparts River area

Beaver Lodge Survey - Sahtu Settlement Area
Furbearers, Beaver
Aerial surveys of beaver lodges in the Brackett and Oscar Lakes and Ramparts River areas were carried out in order to determine the number of active lodges.

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306 Wildlife

Reimer, Dr. Kenneth
Project leader
Environmental Sciences Group
Royal Military College of Canada
Box 17000 Stn Forces
Kingston, ON K7K 7B4

Reference No: 1535 (RWED)
Year of Research: 1997
Location: Cambridge Bay (CAM-M), Cape Dyer (DYE-M), Cape Hooper (FOX-4), Nicholson Peninsula (BAR-4), Pelly Bay (CAM-4), Sarcpa Lake (CAM-F)

Terrestrial Food Chain Contaminants Study
Small Mammals, Lemmings, Voles
Small mammals were collected in order to assess the potential level of chemical contamination to the terrestrial food web associated with former military installations.

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307 Wildlife

Ritter, Guy
Expedition Leader
GREA
Maison Forestiere du Laubeck
38 route de Wasserbourg
Soultzbach-les-bains, France 68230

Reference No: 1532 (RWED)
Year of Research: 1997
Location: Cambridge Bay, Mount Pelly area

1997 Groupe de Recherches en Ecologie Arctique expedition
Small Mammals, Collared Lemming
Collared lemming winter ecology was determined through a description of their winter nests which become visible in summer. Lemming densities and population fluctuations were also studied.

308 Wildlife

Shank, Dr. Chris
Wildlife Biologist
Resources, Wildlife, and Economic Development
600, 5102 - 50 Ave
Yellowknife, NT X1A 3S8

Reference No: 1545 (RWED)
Year of Research: 1997
Location: Arviat, Baker Lake, Coral Harbour, Daring Lake, Fort Liard, Fort Simpson, Fort Smith, Kugluktuk, Norman Wells, Pond Inlet, Rankin Inlet, Repulse Bay, Yellowknife

NWT Small Mammal Survey
Small Mammals, Lemmings, Mice, Vole
Small mammals were snap trapped to quantify a density index for small mammal populations which in turn was used to determine population cycles.

309 Wildlife

Smith, Court
Vice President, Nuna Logistics Ltd
Arauco NWT Ltd.
700 West Pender Street
Suite 1500
Vancouver, BC V6C 1G8

Reference No: 982 (RWED)
Year of Research: 1997
Location: George Lake area (south of Bathurst Inlet)

Wildlife Baseline Study in Area of Arauco's George Lake project
Large Mammals, Raptors, Waterfowl, Caribou, Grizzly, Muskox
Large mammals were censussed by aircraft and ground observations, nesting areas were verified, and habitats were evaluated. Both resident and migratory birds were documented.

310 Wildlife

Solberg, John W.
Flyway Biologist
US Fish and Wildlife Service
Office of Migratory Bird Management
P.O. Box 1887
Klamath Falls, OR 97601

Reference No: 996 (RWED)
Year of Research: 1997
Location: Mills Lake

Western Canada Cooperative Waterfowl Banding Program - Mills Lake Station
Waterfowl, Mallard, Pintail, gw & bw Teals
Up to 2000 mallards, 1500 northern pintails, and 1000 of all other waterfowl species were caught using barley bait traps and then banded.

311 Wildlife

Steen, Dr. Harald
Weasel Project Leader
University of British Columbia
Department of Zoology
6270 University Boulevard
Vancouver, BC V6T 1Z4

Reference No: 1508 (RWED)
Year of Research: 1997
Location: Near Walker Bay on Kent Peninsula

Extent to Which Weasels Cause the Summer Decline in Lemmings
Furbearers, Small Mammals, Brown & coll. Lemming, Weasel
Weasels were live trapped, marked, and radio tagged for population, home range, and mortality study.

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312 Wildlife

Stirling, Ian
Senior Research Scientist
Canadian Wildlife Service
5320 122 St.
Edmonton, AB T6H 3S5

Reference No: 975 (RWED)
Year of Research: 1997
Location: Radstock Bay

The Behaviour of Undisturbed Polar Bears
Large Mammals, Polar Bear
The undisturbed behaviour of polar bears in the Radstock Bay area was observed and documented by continuous observation with telescopes.

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313 Wildlife

Taylor, Mitch
Polar Bear Biologist
Resources, Wildlife, and Economic Development
Fisheries & Wildlife (Nunavut)
Box 1870
Iqaluit, NT X0A 0H0

Reference No: 980 (RWED)
Year of Research: 1997
Location: High arctic and Baffin Bay

Inventories of High Arctic and Baffin Bay Polar Bear Populations
Large Mammals, Polar Bear
As many polar bears as possible were captured and marked for capture-recapture sampling and population estimation. As many of the remaining satellite collars as possible were removed, and polar bears were filmed and photographed for use in educational materials. Two polar bear cubs/yearlings were collected for contaminant analysis.

314 Wildlife

Taylor, Dr. Mitch
Polar Bear Biologist
Resources, Wildlife, and Economic Development
Fisheries & Wildlife (Nunavut)
Box 1870
Iqaluit, NT X0A 0H0

Reference No: 1557 (RWED)
Year of Research: 1997
Location: Resolution Island, Akpatok Island, North Labrador, Akamiski Island, Twin Islands

Davis Strait and Southern Hudson Bay Polar Bear Telemetry Project
Large Mammals, Polar Bear
Helicopters were used to capture and mark as many polar bears as possible, and to radio collar 5 adult females in Davis Strait and 4 in southern Hudson Bay. Work was also carried out on population inventory and boundary definition.

315 Wildlife

Troke, Barry
A/Senior Park Warden
Ellesmere Natl. Park Reserve
Nunavut District, Parks Canada
P.O. Box 353
Pangnirtung, NT X0A 0R0

Reference No: 1513 (RWED)
Year of Research: 1997
Location: Ellesmere Island in vicinity of National Park Reserve

Ellesmere Island National Park Reserve Wildlife Study
Large Mammals, Caribou, Wolf
In the vicinity of Park Reserve on Ellesmere Island, the distribution and movements of Peary caribou, wolves, and muskoxen were studied.

316 Wildlife

Veitch, Alasdair
Sahtu Wildlife Management Supervisor
Resources, Wildlife, and Economic Development
Box 130
Norman Wells, NT X0E 0V0

Reference No: 1561 (RWED)
Year of Research: 1997
Location: Fort Good Hope area

Population Size and Composition of Moose in Fort Good Hope Area November 1997
Large Mammals, Moose
An aerial survey was conducted of the Fort Good Hope area moose population.

317 Wildlife

Veitch, Alasdair
Sahtu Wildlife Management Supervisor
Resources, Wildlife, and Economic Development
Box 130
Norman Wells, NT X0E 0V0

Reference No: 969 (RWED)
Year of Research: 1997
Location: Colville Lake, Kugluktuk, and Crossley Lakes areas

Bluenose Caribou Herd Identification and Range Use
Large Mammals, Caribou
Bluenose caribou were captured and satellite collared in the Colville and Crossley Lakes areas, as well as the Kugluktuk, Inuvik, and Tuktoyaktuk areas.

318 Wildlife

Veitch, Alasdair
Sahtu Wildlife Management Supervisor
Resources, Wildlife, and Economic Development
Box 130
Norman Wells, NT X0E 0V0

Reference No: 985 (RWED)
Year of Research: 1997
Location: Katherine Creek, Mackenzie Mountains

Demography of Dall's Sheep in Mackenzie Mountains, NWT
Large Mammals, Dall's Sheep
A ground survey of Dall's sheep in Katherine Creek area was conducted. Groups of sheep were classified, hunters were surveyed, and recruitment and mortality was estimated.

319 Wildlife

Veitch, Alasdair
Sahtu Wildlife Management Supervisor
Resources, Wildlife, and Economic Development
Government of the Northwest Territories
Box 130
Norman Wells. NT X0E 0V0

Reference No: 1550 (RWED)
Year of Research: 1997
Location: Willow Lake (Brackett Lake) about 40 km N of Tulita

W. Canada Cooperative Banding Program at Willow Lake, NWT - 1997
Waterfowl,
Dabbling ducks were caught using barley baited traps and then banded.

320 Wildlife

Voelzer, James F.
Chief, Waterfowl Population Surveys
US Fish and Wildlife Service
Office of Migratory Bird Management.
911 N.E. 11th Avenue
Portland, OR 97232

Reference No: 1544 (RWED)
Year of Research: 1997
Location: Between Yellowknife and Rae

Experimental Waterfowl Banding Station
Waterfowl, Ducks
A representative sample of ducks from the Yellowknife banding reference area was banded to provide information from the under represented bush area.

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321 Wildlife

Voelzer, James F.
Chief, Waterfowl Population Surveys
United States Fish and Wildlife Service
911 N.E. 11th Avenue
Portland, OR 97232

Reference No: 989 (RWED)
Year of Research: 1997
Location: Mackenzie River drainage- Fort Smith to Tuktoyaktuk

Cooperative US/Canada Waterfowl Population Surveys
Waterfowl,
The size and species composition of breeding population of ducks and other waterfowl in the Mackenzie River drainage was determined and monitored by conducting aerial surveys.

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322 Wildlife

White, David
Project Leader
Volunteer
General Delivery
Gjoa Haven X0E 1J0

Reference No: 1515 (RWED)
Year of Research: 1997
Location: King William Island near Gjoa Haven

King William Island Small Mammal Study
Small Mammals, Collared Lemming, Brown Lemming
Small mammal snap trapping survey was carried out following NWT standard protocol.

323 Wildlife

Wilson, Deborah
PhD candidate
University of British Columbia
Zoology Department
6270 University Boulevard
Vancouver, BC V6T 1Z4

Reference No: 1507 (RWED)
Year of Research: 1997
Location: near Walker Bay on Kent Peninsula

Effects of Predation on Lemming Cycle and on Nesting Success of Geese
Furbearers, Small Mammals, Arctic Fox, Weasel, Arctic Ground Squirrel
Arctic foxes were live trapped and ear tags were applied. Ground squirrels and weasels from an 11 hectare study area were removed (trapped and euthanised) in order to determine the effects of predators on lemming population fluctuations.

Department of Fisheries & Oceans
Fisheries Scientific Licences

324 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-003 and SLI-97/98-009 (DFO)
Region: IN Location: Mackenzie Delta, East Channel
Year of Research: 1997

Monitoring of Inuvik Sewage Lagoon Effluent
The project was designed to investigate any changes in the composition of benthic invertebrates and fish due to outflows from the Inuvik Sewage Lagoon.

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325 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-019 (DFO)
Region: IN Location: Unnamed lakes of Campbell Creek
Year of Research: 1997

Overwintering Potential of Lakes in the Campbell Creek Drainage
A determination was made of the overwintering potential for fish in the lakes of the Campbell Creek drainage.

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326 Fisheries
Chiperzak, Doug
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-016 (DFO)
Region: IN Location: Rat River, Peel River, Snake River
Year of Research: 1997

Inconnu Studies - Rat, Peel, and Snake Rivers
The study was designed to confirm and describe inconnu spawning locations in three river systems.

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327 Fisheries

Gyselman, Eric
Department of Fisheries and Oceans
Freshwater Institute
501 University Cres.
Winnipeg, MB R3T 2N6

Reference No: SLI-97/98-015 (DFO)
Region: IN Location: Firth River, Ivvavik National Park
Year of Research: 1997

Firth River - Arctic Charr Studies
A count of the Dolly Varden charr migrating upstream in the Firth River (Ivvavik National Park) was conducted. The project was undertaken in conjunction with Parks Canada and used high frequency (120 kHz) hydroacoustic techniques.

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328 Fisheries
Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-012 (DFO)
Region: IN Location: Tuktoyaktuk Harbour
Year of Research: 1997

Tuktoyaktuk Harbour - Arctic Cisco Studies
A test-netting program was conducted using standard gang net and a random dead sample (n=600) was collected from four locations in Tuktoyaktuk Harbour. There were also 500 Arctic cisco in Tuktoyaktuk Harbour which were measured and had Floy tags applied.

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329 Fisheries
Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-011 (DFO)
Region: IN Location: Rat River
Year of Research: 1997

Rat River Charr Studies
An estimation was made of the number of spawning charr at the Rat River Fish Hole through a Petersen mark recapture method. Information was also obtained on the size, sex, and maturity of charr at Fish Hole, particularly as a means of monitoring the status of the spawning component of the stock. Floy tags were applied that would be available for recapture in the 1998 subsistence fishery which would then provide additional information on the exploitation rate, size of stock and movement of stock. A contribution was also made of some of the necessary biological information for the development, implementation, and updating of the Rat River Charr Fishing Plan.

330 Fisheries

Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-008 (DFO)
Region: IN Location: Pearce Point, Paulatuk
Year of Research: 1997

Pearce Point (Paulatuk) Charr Studies
Through a community-based Floy tagging program, an estimation was made of the relative contribution of the Arctic charr which was caught by the residents of Paulatuk at Pearce Point, to the Hornaday River charr run. Biological samples from charr caught in the subsistence fishery at Pearce Point were obtained.

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331 Fisheries

Harwood, Lois
Department of Fisheries and Oceans
Box 1871
Inuvik, NT X0E 0T0

Reference No: SLI-97/98-013 (DFO)
Region: IN Location: Hornaday River
Year of Research: 1997

Hornaday River Charr Studies
The location of spawning areas was confirmed and a retroactive examination of the life history of Hornaday River charr was carried out. This was done to provide more evidence that charr within the Rummy Lake, Seven Islands Lake, and Hornaday Lake systems are of the non-anadromous life history type.

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332 Fisheries

Low, George
Department of Fisheries and Oceans
42043 Mackenzie Highway
Hay River, NT X0E 0R9

Reference No: SLI-97/98-004 (DFO)
Region: ALL Location: NWT West, all areas
Year of Research: 1997

General Program Sampling - NWT West Area
General program sampling included the collection of data for the purpose of stock assessment through mark/recapture studies, weir counts, sampling for age and growth, and Catch Per Unit Effort. Stocks were delineated through stock identification programs, and community surveys were conducted to gather traditional knowledge of stocks and fishing patterns. The various communities were also involved in developing solutions to fishery management programs.

333 Fisheries

Low, George
Department of Fisheries and Oceans
42043 Mackenzie Highway
Hay River, NT X0E 0R9

Reference No: SLI-97/98-010 (DFO)
Region: NS, SS, DC Location: Great Slave Lake
Year of Research: 1997

Experimental Netting to Estimate Biomass - Great Slave Lake
Experimental netting was used to estimate the biomass distribution of whitefish amongst length, weight, and frequency classes in the Great Slave Lake. A determination was also made of the short and long-term effects of reducing commercial mesh size from 133 mm (5 ¼ in) stretched mesh to 127 mm (5 in) stretched mesh on lake whitefish and other by-catch species in the Great Slave Lake.

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334 Fisheries

Reist, James D.
Department of Fisheries and Oceans
Arctic Fisheries Research Section, Science Directorate
501 University Cres.
Winnipeg, MB R3T 2N6

Reference No: SLI-97/98-014 (DFO)
Region: IN Location: Beaufort Sea
Year of Research: 1997

Fish Collection - SHEBA/JOIS Northwest Passage Transit
As part of the region's SHEBA/JOIS program during the transit of the *CCGS Louis St. Laurent* through the Northwest Passage, field research and fishing activities were conducted which included: population dynamics, genetics, diet, contaminants, and related biological sampling in support of other projects being conducted (eg. physical, chemical, and biological oceanography).

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335 Fisheries

Reist, James D.
Arctic Fisheries and Marine Mammals Research Division, Department of Fisheries and Oceans
Freshwater Institute
501 University Cres.
Winnipeg, MB R3T 2N6

Reference No: SLI-97/98-006 (DFO)
Region: IN Location: Aulavik National Park, Banks Island
Year of Research: 1997

Charr Genetic Diversity Studies in Aulavik National Park
Charr were collected opportunistically from as many water bodies as possible. Morphological data was collected from individual fish and muscle tissue was preserved in DMSO salt solution for genetic studies.

336 Fisheries

Richard, Pierre
Department of Fisheries and Oceans
Arctic Stock Assessment
501 University Cres.
Winnipeg, MB R3T 2N6

Reference No: SLI-97/98-007 (DFO)
Region: IN Location: Mackenzie Delta and east Beaufort Sea
Year of Research: 1997

Beluga/Narwhal Live Capture - Tagging and Satellite Tracking
Belugas and narwhals were captured so that satellite tags and flipper band tags could be attached. During the restraint period, the animals were sexed, skin and blood samples were taken, and morphometric data was collected.

Researchers & Agencies Index 1996

Aurora Research Institute
Science Licences

037 Bedard, Joanne
038 Blake, Dale
014 Bleeker, Wouter
039 Borisov, Andrian
040 Bron, Ingrid
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041 Cameron, Anne-Mieke
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010 Witteman, John

Prince of Wales Northern Heritage Centre
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108 Harron, Donald
109 Heinrich, Bernd
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114 Kalluk, Isaac
115 Kay, Dave
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118 Krebs, Charles
119 Larter, Nicholas
120 Latour, Paul
121 Latour, Paul
122 Lee, John
123 Martin, Jean-Louis
124 Mech, David
125 Morantz, David
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128 Mueller, Fritz
129 Mulders, Robert
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146 Reimer, Kenneth
147 Roach, Pat
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155 Veitch, Alasdair
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157 Voelzer, James
158 Welch, Harold
159 Wilson, Deborah

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169 Healy, Maria
170 Low, George
171 Tallman, Ross

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195 Clark, Ian D.
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183 Cumbaa, S.L.
187 Currie, Lisel
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211 Dixon, Nora
188 Dyke, Larry
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198 French, Hugh
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174 Hebert, Paul
214 Hogan, Bernard
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193 Kershaw, G. Peter
200 Kershaw, G. Peter
216 King, Dave
224 Legat, Allice
201 Lesack, Lance
202 Long, Darrel G.F.
175 Macdonald, Gord
203 Mackay, Ross J.
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190 Nixon, Mark
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249 Chetkiewicz, Cheryl
250 Cluff, Dean
251 van de Groot, Peter J.
252 Dickson, Lynne
253 Dickson, Lynne
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255 Ferguson, Michael A.D.
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257 Gates, Dr. Cormack
258 Gates, Dr. Cormack
259 Gauthier, Dr. Giles
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265 Gunn, Dr. Anne
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271 Henry, Dr. Greg
272 Hines, James E.
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290 Morris, Douglas W.
291 Morrison, Dr. R.I.G.
292 Mueller, Fritz
293 Muggli, Deborah
294 Mulders, Robert
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297 Mulders, Robert
298 Nagy, John
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300 Nishi, John
301 Nishi, John
302 Nishi, John
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304 Pittaway, Lois
305 Popko, Richard
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309 Smith, Court
310 Solberg, John W.
311 Steen, Dr. Harald
312 Stirling, Ian
313 Taylor, Mitch
314 Taylor, Dr. Mitch
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