



Arctic Institute of North America

ANNUAL REPORT 2009



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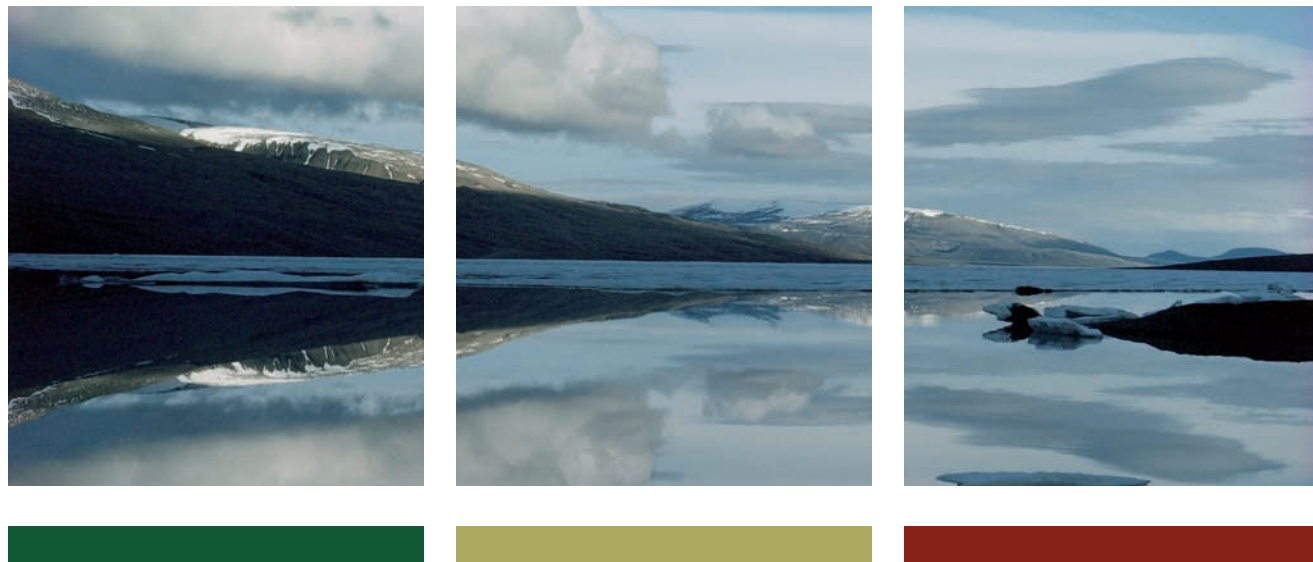
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Contents

Message from the Executive Director	4
Message from the Chair	5
AINA US Corporation Report.....	6
Kluane Lake Research Station.....	7
Media & Outreach.....	8
Arctic in 2009.....	11
Arctic Science & Technology Information System (ASTIS)	12
Northern Lights Series.....	13
Library.....	13
Photographic Archives.....	14
2009 Scholarship Winners	15
Grant-in-Aid Program.....	15
2009 Northern Scientific Training Program Grant Recipients.....	16
Research Associates	18
Selected Research Publications	20
Financial Report	22
Membership Form	27



Message from the Executive Director

THE YEAR 2009 WAS RICH WITH POSITIVE EVENTS AND DEVELOPMENTS for the Arctic Institute. It began with the exciting announcement the Institute would receive \$3.4 million from the Arctic Research Infrastructure Fund of the Canadian government for the refurbishment of the Kluane Lake Research Station. Kluane Lake is one of Canada's key northern research facilities with a long track record of world-class publications and student training, but it had fallen into an advanced stage of disrepair. This funding will allow the station to carry on its successful scientific mandate for another 50 years.

This remarkable piece of good news came as the University of Calgary (U of C) was beginning to feel the aftershocks of the greatest financial crisis of our times. Cutbacks were announced by University administrators, which impacted the Institute. Despite the hardship, we were fortunate our staff remained stable and dedicated to Institute goals and objectives. *Arctic* journal continues as one of the world's leading peer-reviewed publications about northern scholarship. ASTIS continues to provide top quality services to clients, while substantially growing its database.

The year 2009 will be remembered as the end of an era for the Arctic Institute as Michel Scott will complete his third and final term as Chairman of the Board of Directors. Michel has been on the board since 2001 and Chairman since 2003. He has been instrumental in solving some of the Institute's key and most sensitive issues, including the transition between executive directors and the simplification of auditing procedures to the benefit of both AINA and the U of C. He ensured that AINA and its many programs were connected with potential industry sponsors, while being principal fundraiser for the Institute's Photo Archive project. He brought to the board very fine individuals from a wide variety of professional, institutional and geographic backgrounds. Michel also worked closely with the U of C's Vice-President Research and Financial Services to ensure AINA's books were kept in good stead. As a testimony to his legacy, the Arctic is now recognized as an important area of growth and research by the University of Calgary as will be shown in its new Strategic Research Plan.

Finally, on a sad note, I have announced to the Board of Directors that I will not seek a second mandate as Executive Director of the Institute. I have enjoyed this position immensely for the past five years, but the time has come for me to return to my home in the Department of Geoscience. This will allow me to properly fulfill my mentoring duties with an ever-growing number of graduate students, while pursuing my passion for Arctic geoscience research at a time when it is most needed and in high demand. While my term ends on April 1, 2010, the board has convinced me to stay on a while longer to ensure the completion of key projects. I cannot thank enough the staff and board for their unconditional support over the past five years. It has been a genuine honor and a privilege to serve as Executive Director of the Arctic Institute of North America.

Benoît Beauchamp, PhD, Executive Director

Message from the Chair

IT IS WITH A SENSE OF REGRET AND A FEELING OF PRIDE that I pen this last annual report message. The regret comes from knowing I will step down in the spring of 2010 as Chair of the Arctic Institute board. The pride stems from watching the Institute strive and thrive in the midst of difficult and challenging times—both for the organization and for the Arctic. In my eight years with the Institute it has achieved multiple successes and the past year is no exception. This is not just my assessment; it is clear from our achievements of the last year that within Calgary and across Canada, the reputation of the Institute is growing.

Certainly one of the triumphs of 2009 was the \$3.4 million federal infrastructure grant to renovate buildings at the Kluane Lake Research Station (KLRS). These funds, which are part of an \$85 million federal infrastructure program to strengthen northern research facilities, will bring the station up to the modern technological standards expected by a new generation of researchers. Construction will commence in 2010 with completion expected by April 2011.

We continue to recruit a strong slate of board members. In 2009 we welcomed John Miller, from Investment Banking, CIBC World Markets Inc. in Calgary, and Carolyn Relf, director of the Yukon Geological Survey. We also said a regretful goodbye to Leon Sorenson, who was transferred overseas. I have been proud to serve with this dedicated group of professionals who can always be counted on for their insightful comments and expert guidance.

The year also brought with it the news that Benoît Beauchamp will not seek a second mandate as Executive Director. Under Benoît's leadership, the reputation of AINA has flourished on the University of Calgary campus and across Canada. His distinction as a scientist of high repute has increased the visibility and credibility of the Institute in the eyes of professionals, academics and the public. During his tenure, Benoît developed an ambitious five-year business plan and has made gains achieving his objectives—most notably the refurbishment of KLRS. One of his most significant achievements was streamlining the auditing process, which will save the Institute and the University both time and money. I have immensely enjoyed working with Benoît for the last five years and know the Institute will miss his energy and positive outlook. And although he will be with the Institute until as late as June 2011, I would like to take this opportunity to wish him great success in his move to full-time teaching and research in the University's Department of Geoscience.

As I prepare to step away from my long association with the Arctic Institute, I have every confidence that the organization will enjoy continued success in its mission to foster scholarship and research about the North. The dedication and passion of staff and board members for the Arctic are irrepressible. And perhaps, more than anything, it is this spirit I will miss above all.

Michel Scott, Chairman of the Board



AINA US Corporation Report



THE ARCTIC INSTITUTE OF NORTH AMERICA (AINA) was founded jointly in Canada and the U.S. in 1945 because both countries recognized the cost of their “Arctic ignorance” during World War II. We are now going through a time when our collective ignorance of rapid changes on a global scale demands attention. These changes in climate and socio-political activity are especially pronounced in the Arctic.

In particular, problems in the western Arctic present new challenges to Canada and Alaska, which emphasizes the need for cooperative activity. Some action was taken in 2000 when the University of Alaska and the University of Calgary jointly signed an Academic Co-operation Agreement, and a Supplemental Letter of Agreement (for staff and student exchange). Terrence H. White, President and Vice Chancellor of the University of Calgary, and Marshall Lind, Chancellor of University of Alaska Fairbanks (UAF), signed both documents. Marshall Lind signed on behalf of all three University of Alaska campuses: Fairbanks, Anchorage and Juneau. These documents contain a fine set of objectives, however the section on implementation apparently was not acted on.

The subject of cooperative activities was revisited in 2009. Alaskans and Canadians discussed ideas during the winter and spring and met at the Kluane Lake Research Station on August 6. The Kluane Lake meeting included senior administrative and research faculty members from the Universities of Alaska, Calgary, Alberta, Northern British Columbia, and a research scientist from the USA Cold Regions Research and Engineering Laboratory based in Fairbanks.

We recognize that in addition to formal agreements we must have a mechanism for implementation and it is especially important to initiate and maintain joint activities between Alaskans and Canadians.

One joint project, underway for the past 15 years, is the AINA Grant-in-Aid Program, administered by a bi-national committee, chaired by Erich Follmann of UAF and funded entirely by member donations. Our main source of income for the fund comes from annual solicitations of both Canadian and U.S. members. By 2009 a total of \$104,000 had been distributed in 131 awards. The project may be unique in that there is no overhead; volunteers run it and all of the funds received go to recipients of the Grants-in-Aid. Dr. Follmann’s annual reports on the program are published in *Arctic*.

Our public outreach programs include the Arctic Roundtable, which is led by a panel and involves discussion by the assembled audience. We also collaborate with the University of Alaska Museum of the North in presenting a series of lectures for the general public. At the Kluane Lake meeting we discussed ways to broaden these programs, which have been run entirely in Alaska so far.

We welcomed two new members to our Board of Governors: Dr. Frederick E. Nelson, of the University of Delaware, and Dr. James P. Lawler, of the U.S. National Park Service.

Carl S. Benson, PhD, Chairman, Board of Governors

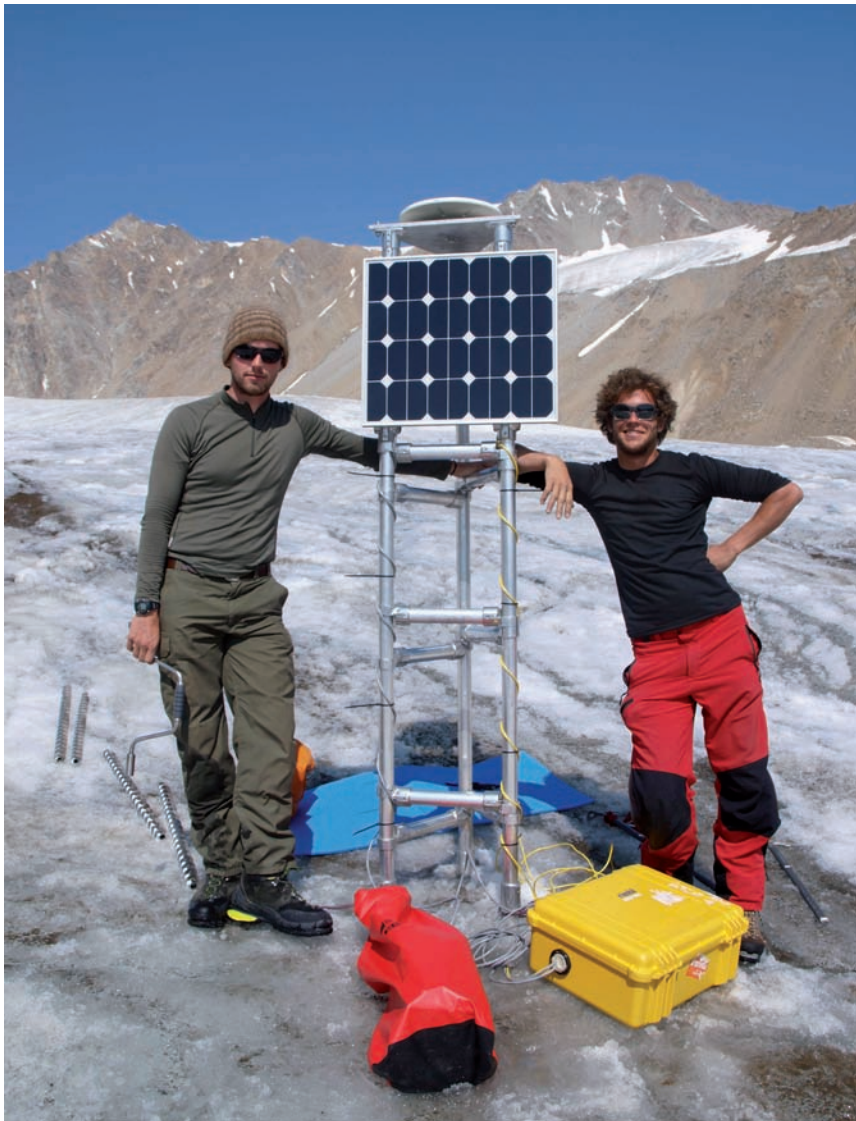
Kluane Lake Research Station

THIS PAST YEAR OF 2009 HAS BEEN A SPECIAL ONE in Kluane Lake history. In March, the Institute was awarded a \$3.4 million grant from the Indian and Northern Affairs Canada Infrastructure Fund to refurbish Kluane Lake Research Station (KLRS). No major renovations have been undertaken at the base camp in the 50 years it has been operating and the funds will allow for much-needed repairs and upgrading.

The funding program is part of the federal government's strategy to strengthen the North by investing in research, housing, and social and economic development. In total, \$85 million was given to key research facilities across the Canadian North.

The KLRS infrastructure funds will be used to increase sleeping space, rebuild laboratories, kitchen and dining facilities, and purchase green energy technologies. The monies will also improve the station's communication technologies. In the fall of 2009, engineers and architects worked on plans for the buildings and began site preparation. Construction at the site will begin in the spring of 2010 and is slated for completion by April 2011.

As usual, the field season at Kluane Lake was busy with researchers and their assistants flying in from across Canada. A new addition was the presence of Jerome Stueart, a science writer hired by the Institute to spend the summer reporting on the science and scientists at the base camp. Stueart's work appeared in several Yukon publications and on CBC Radio in Whitehorse.



Student researchers Gudni Rosenkjaer, left, and Nicolas Roux install a GPS tower for over-winter operation in the Kaskawulsh Glacier region in Kluane National Park. The students were working with Prof. Gwenn Flowers, Canada Research Chair in Glaciology in the Department of Earth Sciences at Simon Fraser University.



In August, KLRS hosted a meeting for 21 researchers, academics and government representatives from the universities of Alaska, Calgary, Alberta, Queens and Northern British Columbia, from Yukon College, the USA Cold Regions Research and Engineering Laboratory, the Yukon Government, and the Yukon Geological Survey. Among the topics discussed were cooperation between the universities and Yukon institutions and agencies, and the coordination of research infrastructure and programs.

Media & Outreach

THE ARCTIC INSTITUTE UNDERTOOK SEVERAL EXCITING COMMUNICATION VENTURES IN 2009, all of which helped raise the profile of the Institute on and off campus.

The International Polar Year project to promote Arctic science continued into its second year with the release of research stories based on articles in scholarly journals. Northern media responded with more interest than did media in southern Canada. This was not unexpected as editors are always more interested in a story if it impacts local residents.

The IPY project moved in several new directions in 2009. For 11 weeks over the summer, Jerome Stueart, an award-winning science fiction writer based in Whitehorse, lived at the Kluane Lake Research Station (KLRS) and reported on scientists and their research projects. Stueart's stories were publicized in several ways. Media releases were issued, stories were published on the Institute website and Jerome created a blog where he posted his stories as well as informal reports about day-to-day life in the camp.

Twitter and a KLRS Facebook page were created where notices were placed when research stories were released to the public. The Kluane Lake Facebook account is also a place where researchers can talk to each other and upload their photos. The Institute subscribed to EurekAlert, a global science news service operated by the American Association for the Advancement of Science. The subscription allows the Institute to load IPY news releases to the EurekAlert site where they are viewed by hundreds of journalists from around the world.

Stueart's role at the camp is over, but the Twitter and Facebook accounts are still being used to publicize events at the station and the Institute. In addition, an Arctic Institute Facebook page has been created to promote the organization.



The Arctic Institute's Ruth Klinkhammer, Director of Communications (left), and Trisha Carleton, Administrative Assistant, sell books and memberships at ArcticNet's 2009 meeting in Victoria.

Speaker Series Underway

In September, the speaker series, Arctic Change, got underway. Opening the series was Ed Struzik, a well-known science journalist who has covered the Arctic extensively. Other speakers were Susan Kutz from the University of Calgary (U of C) School of Veterinary Medicine, and Ann-Lise Norman, U of C Faculty of Science. Three more speakers were slated to appear in January, February and March of 2010. All speakers examined the impact of climate change in the North.

Events

In June, the Arctic Institute participated in two University open house events—Sneak-a-Peek and Campus Fair. The Sneak-a-Peek activity, a caribou migration game, was filmed for Citytv's Calgary news. The Campus Fair activity, Polar Bear Plunge, was voted one of the top 5 of 70 booths by fair visitors polled in an exit survey. An estimated 6,000 people attended Campus Fair in 2009.

The Institute attended ArcticNet's December meeting in Victoria. Staff worked an Institute booth where they sold memberships and books. Ruth Klinkhammer gave a plenary presentation on using online social networking media to promote Arctic science.



Campus Fair participants test their ice water endurance levels in the Polar Bear Plunge. The Arctic Institute's booth was voted one of the top 5 of 70 by visitors surveyed in an exit poll.

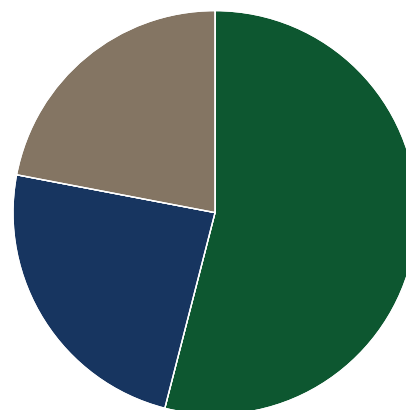
Selected Media Mentions of Arctic Institute Staff and Affiliates

DATE	MEDIA OUTLET	HEADLINE/SOURCE
January 20	Calgary Herald	Ottawa sweetens pot for Arctic pipeline, B. Beauchamp.
Fall/Winter	Makivik Magazine	Students in the NRC library, Lynne & Lynda Howard.
January 13	Red Deer Advocate	Arctic facing threats, D. Hik.
January 29	Radio Canada, Ontario	Arctic energy and sovereignty, B. Beauchamp.
February 4	CBC North	Fossil shows polar bears may have lived thorough warmer times: study, R. Klinkhammer.
February 25	Edmonton Journal	Canada urged to take lead in polar research, D. Hik.
February 25	Ottawa Citizen	Don't leave polar regions in the cold, D. Hik.
February 27	Point de Presse, Radio Canada	IPY conference in Geneva, B. Beauchamp.
March 22	Découverte, Radio Canada	Arctic energy resources, B. Beauchamp.
March 29	Les Années Lumières, Radio Canada	Arctic sovereignty and resources, B. Beauchamp.
March 31	CKRW, Whitehorse	\$3.4 million to upgrade research station, B. Beauchamp.
April 1	Le Quotidien, Radio Canada	\$3.4 million to upgrade research station, B. Beauchamp.
April 1	CHON FM, Whitehorse	\$3.4 million to upgrade research station, B. Beauchamp.
April	Up Here Magazine	25 big ideas, B. Beauchamp.
April 8	Radio Canada, Alberta	Melting Arctic sea ice, B. Beauchamp.
May 14	Radio Canada, Alberta	Rising to the Arctic Challenge report, B. Beauchamp.
June 20	CBC's Nature of Things	Arctic Meltdown, B. Beauchamp, R. Huebert, L. Fortier.
June 27	Globe and Mail	Joseph Bernier's expeditions to Arctic, W. Barr.
July 4	Washington Times	Arctic oil, gas on hold from lawsuits, economy, A. Braun.
August 17	De l'été du Monde, Radio Canada	Militarization of the north, B. Beauchamp.
September 4	Radio Canada, Toronto	United Nations conference on climate change, B. Beauchamp.
September 11	Calgary Herald	Northern research needed in winter, D. Hik.
September 11	Calgary Herald	List of threatened Arctic animals is growing, D. Hik.
September 11	Edmonton Journal	Go north, young grad, polar prof tells U of A students, D. Hik.
September 11	Ottawa Citizen	Wildlife bear brunt of Arctic's 'preturbed' ecosystem: study, D. Hik.
October 15	Radio Canada, Ontario	Melting Arctic Ocean ice cap, B. Beauchamp.
October 21	Toronto Star	Climate experts accuse Ottawa of 'foot-dragging,' L. Fortier.
October 22	Montreal Gazette	MPs warned against delays in acting on climate change, L. Fortier.



Arctic in 2009

The four issues of *Arctic* published in 2009 included 37 research articles, 24 book reviews, 3 obituaries, 3 Arctic profiles, 1 commentary, and 5 InfoNorth essays. Our page count for Volume 62 was just over 500 pages. Of the 37 research articles published in 2009, papers from the biological sciences continue to dominate, accounting for 54%, with papers from the social sciences at 24% and from the physical sciences, 22%.



■ Earth Sciences
■ Biological Sciences
■ Social Sciences

Arctic Online

In 2009 we began working toward offering an online subscription to *Arctic*. To do so, we became part of *Synergies*, an innovative, national project to produce, store, disseminate, and provide access to digitized knowledge produced in Canada. Some complete issues of *Arctic* are now available through the Prairie Node of *Synergies*, led by the University of Calgary. The online version of the journal is created using the Open Journals System (OJS), for which technical support is available at the University of Calgary.

We are fortunate that most of the metadata could be transferred from the ASTIS database, which includes all articles, notes, commentaries, obituaries, Arctic profiles and InfoNorth essays published in *Arctic*. Over the coming year, we will be adding those sections that are not indexed in the ASTIS database (such as book reviews, letters to the editor, and news items), so that the online issues of *Arctic* will eventually be a faithful replication of the print issues.



Arctic Science & Technology Information System

THE ARCTIC SCIENCE AND TECHNOLOGY INFORMATION SYSTEM (ASTIS) is Canada's northern database. ASTIS contains 69,300 records describing publications and research projects about northern Canada. ASTIS includes all subjects, and covers the Yukon, the Northwest Territories, Nunavut, the northern parts of seven provinces and Canada's Arctic waters. ASTIS has been in operation since 1978 and is funded through contract work and donations.

The ASTIS database is available from a free bilingual website and is searchable from Simple and Advanced Search pages or by clicking on hyperlinks in database records. ASTIS records contain abstracts and detailed subject and geographic indexing terms. The publications cited in the database include both peer-reviewed and grey literature. More than 15,000 records contain links to PDF files of publications that are available online.

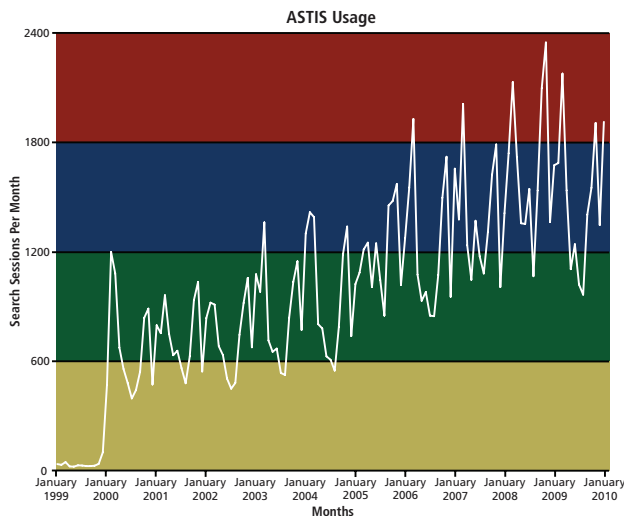
The ASTIS database contains 15,300 records describing research projects conducted in Canada's three northern territories since 1974. These records are based on information provided by the organizations that license all territorial research: the Aurora Research Institute, the Central and Arctic Region of Fisheries and Oceans Canada, the Northwest Territories Department of Environment and Natural Resources, the Nunavut Department of Culture, Language, Elders and Youth, the Nunavut Department of Environment, the Nunavut Research Institute, the Prince of Wales Northern Heritage Centre and the Yukon Heritage Resources Unit.

ASTIS specializes in the preparation of bibliographic databases about northern Canada, and can easily make these databases available from customized websites for clients. The ASTIS page of the Institute's website provides access to 14 such databases. ASTIS is also available with the world's other major polar databases in EBSCO Publishing's international *Arctic & Antarctic Regions* database, which describes more than one million polar publications.

One new ASTIS project was undertaken in 2009, work for the Canadian Association of Petroleum Producers to create an electronic library of digitized reports for the proposed Beaufort Regional Environmental Assessment (BREA). ASTIS also worked on several internal Arctic Institute projects in 2009, including the *Kluane Lake Research Station Bibliography*; the *Arctic Contents* and *Arctic Search* pages of the Institute website; and maintenance of the Institute's publications server which makes 3800 publications available on the Web as PDF files.

Ongoing ASTIS projects that continued during 2009 included the *Canadian IPY Publications Database* funded by the Government of Canada Program for International Polar Year (IPY) and EnCana Corporation (and which included work with the American Geological Institute, the Scott Polar Research Institute, the University of Colorado and National Information Services

Corporation on the international *IPY Publications Database*); the *Circumpolar Health Bibliographic Database* funded by the Canadian Institutes of Health Research Team in Circumpolar Health Research; the *Hydrocarbon Impacts* database funded by the Indian and Northern Affairs Canada (INAC) Northern Oil and Gas Branch; the *NCP Publications Database* funded by the INAC Northern Contaminants Program; work with Makivik Corporation to train Inuit students to organize the Nunavik Research Centre Library using funding provided by the Government of Canada Program for IPY; the *Northern Granular Resources Bibliographic Database* funded by the INAC Land and Water Management Directorate; work with the Inuvialuit Joint Secretariat on the *Inuvialuit Settlement Region Database* funded by Shell Canada and MGM Energy; work with Makivik Corporation, INAC,



the Canadian Circumpolar Institute and the Centre d'études nordiques on the *Nunavik Bibliography*; work with the Yukon Biodiversity Working Group on the *Yukon Biodiversity Database* funded by Foothills Pipe Lines; work with the McGill University Library to index the serial publications of Makivik Corporation as part of the Université du Québec à Montréal project *Hearing and Sharing the Voices of Nunavik* funded by the Government of Canada Program for IPY; completion of the *Canadian Permafrost Conferences* website funded by the Geological Survey of Canada; and completion of work for the Canadian Arctic Shelf Exchange Study at Université Laval to ensure that all of their peer-reviewed publications were included in ASTIS.

All of these projects are moving ASTIS closer to its goal of providing comprehensive coverage of northern Canadian publications and research projects.



Northern Lights Series

TWO NEW TITLES WERE PUBLISHED under the Northern Lights Series, a publishing program the Institute operates in collaboration with the U of C Press.

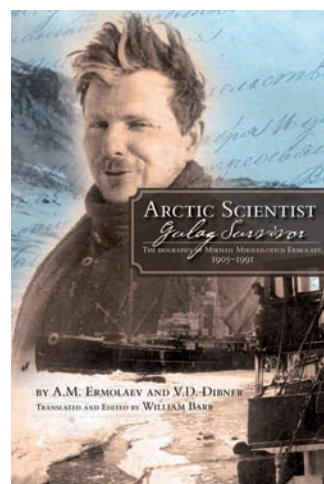
Biocultural Diversity and Indigenous Ways of Knowing, by Karim-Aly Kassam, deals with contemporary issues such as climate change, indigenous peoples, and the impact of natural resource extraction. Kassam positions the Arctic and sub-Arctic as a homeland rather than simply a frontier for resource exploitation. Drawing on research carried out in partnership with indigenous northern communities, three case studies illustrate that subsistence hunting and gathering are not relics of an earlier era, but remain essential to both cultural diversity and to human survival.

Arctic Scientist Gulag Survivor: The Biography of Mikhail Mikhailovich Ermolaev is the riveting story of a Soviet scientist accused of engaging in pointless academic research and sentenced to eight years hard labour in the Gulag. The book, authored by Ermolaev's son A.M. Ermolaev and V.D. Dibner, was translated by William Barr, series editor and Institute research associate. It details the harrowing arrests and incarceration of this prominent geologist, physicist and oceanographer.

Library

THE ARCTIC INSTITUTE OF NORTH AMERICA (AINA) Library, housed in the Gallagher Library, continues as a collection of strength for the University of Calgary. The collection's multidisciplinary focus attracts students, researchers and an interested public from across campus and indeed from around the world.

Libraries and Cultural Resources worked judiciously to make northern material housed within the AINA Library more accessible. During the past year, progress was made adding titles from the Pipeline Room collection, which contains reports on Mackenzie Valley pipeline work in the 1970s, and



from the heretofore inaccessible records that were in card catalogue form only. As part of these projects, a total of 2,013 items were added to the AINA collection. An additional 45 new titles were ordered on the Library's Northern Studies fund in 2009. The collection was further enhanced by the addition of titles that deal with northern subject matter ordered through other library funds, and titles obtained by ASTIS.

For an overview of the AINA collection and links to other research resources for Northern Studies, visit the web pages in the library's Research Support section. Navigate to the Research Support page, select Interdisciplinary, and then select Northern Studies.

Claudette Cloutier, the Liaison Librarian for Northern Studies, provides research assistance to students, faculty, staff and visiting researchers looking for northern and polar-related information. Please contact her at ccloutie@ucalgary.ca for research assistance.

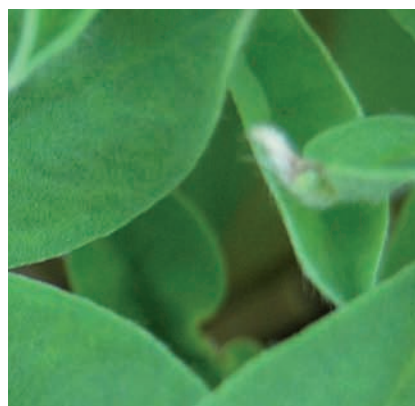
Photographic Archives

Earlier this year the University of Calgary Library's Special Collections department mounted a website containing the Arctic Institute's Philip Sidney Smith Collection of photographs.

Smith was one of a number of geologists employed at the turn of the 20th century to study the state of Alaska. He was sent into the bush for months at a time where he engaged in topographic mapping and geologic exploration. Due to his extensive research activities and scholarship, Smith has been hailed as the one of the most outstanding Alaskan specialists of the early 20th century.

The collection contains digitized photographs that date from 1906 to 1923. Most photos were taken by Smith but other photographers include Fred H. Moffit, Henry M. Eakin, C.E. Giffin and J.C. Doyle. Each photograph has a catalogue record that contains keyword search terms. Also available are supplementary resources such as links, bibliographies and biographies. To access the site go to: <http://www.ucalgary.ca/smithphotographs/>.

The project was made possible through the collaborative efforts of Special Collections and Library and Cultural Resources at the Library. Funds were provided by the Lois Hole Campus Alberta Digital Library.



2009 Scholarship Winners

Jennifer Robinson Scholarship – \$5,000

Evan Richardson, a PhD student in the Department of Biological Sciences at the University of Alberta, is the 2009 winner of the Jennifer Robinson Scholarship. Evan, who began his research career in the North during a summer field job in Wapusk National Park, is investigating the long-term impacts of climate change on polar bear life history and population dynamics.



Lorraine Allison Scholarship – \$3,000

Dr. Pat Curry (DVM), a PhD student in Veterinary Medicine at the University of Calgary, is the recipient of the 2009 Lorraine Allison Scholarship. Pat's research focuses on the development of a practical, field-friendly tool for caribou health monitoring. Initial testing of the blood-on-filter-paper sampling technique, which draws on the skills and knowledge of Northerners, is progressing well and suggests this technique will be an excellent, versatile tool for broad-scale screening and surveillance of pathogen exposure in caribou.

Jim Bourque Scholarship – \$1,000

Leanna Farr was awarded the 2009 Jim Bourque Scholarship. Leanna has completed a BA in Environmental Geography from Nipissing University and is currently enrolled in the joint Masters Environmental Studies/Juris Doctor program offered by York University's Faculty of Environmental Studies and Osgoode Hall Law School. Leanna, who is passionate about environmental protection, hopes to pursue a career involving Aboriginal conservation and environmental decision making.

Grant-in-Aid Program

THE GRANT-IN-AID PROGRAM IS A JOINT CANADA-U.S. endeavour that has provided funds to young investigators for the past 15 years. Applications for the program are encouraged from researchers, especially graduate students, focused on the natural and social sciences. On the binational committee were chair Erich Follman in Alaska, Stephen Braund in Alaska, Matthew Sturm in Alaska, and Peter Johnson in Canada. Ten successful applicants were awarded grants of \$1,000 in 2009:

- **Pat Curry**, University of Calgary, is focusing on the development of a practical, field-friendly tool for caribou health monitoring.
- **Megan J. Hight**, University of Alberta, is employing archival records and vital statistics registers to reconstruct the cultural ecology of disease among the Klondike Gold Rush population in the Yukon Territory.

ABOVE: Evan Richardson, a PhD student in the University of Alberta's Department of Biological Sciences, is looking at the long-term impacts of climate change on polar bear populations. Richardson won the 2009 Jennifer Robinson Scholarship.

BELOW: Dr. Pat Curry, a PhD student at the University of Calgary's School of Veterinary Medicine, is developing a simple caribou blood sampling method that could be used in the field by hunters. Curry won the 2009 Lorraine Allison Scholarship and a Grant in Aid.



- **Bryanne Hoar**, University of Calgary, is using a combination of field, laboratory, and modeling techniques to determine the effect of climate change on the development, survival, and transmission of *Ostertagia gruehneri*, a parasitic nematode of barren-ground caribou.
- **Alexander Coverdill**, Boston University, is working on the physiology and migratory patterns of snow buntings.
- **Ben Dantzer**, Michigan State University, is working on how differences in population density affect hormone levels in red squirrels at Kluane Lake.
- **Anne Hamilton**, University of Manitoba, is using archaeological excavations to assess patterns of lithic raw material use by Inuit populations living in the Frobisher Bay region.
- **Jennifer Provencher**, University of Victoria, is studying shifts in the diet of thick-billed murres from the 1970s and over the past four decades.
- **Julia Shonfield**, University of Guelph, is working on kin recognition in red squirrels.
- **Nathan Stewart**, University of Alaska Fairbanks, is working on kelp beds and sea urchin beds in relation to sea otters in Alaska.
- **Andrew Trant**, Memorial University, is investigating the role of natural disturbance and recent climate warming on the persistence and stability of the treeline in the Mealy Mountains of Labrador.

2009 Northern Scientific Training Program Grant Recipients

The Northern Scientific Training Program (NSTP) was established to help young scientists in Canada offset some of the significant expenses of northern travel. The grants are funded by Indian and Northern Affairs Canada but adjudicated and administered by the Arctic Institute.

NAME	DISCIPLINE	PROJECT
Peter Bezeau	Physical Geography	South Hudson Bay fast-ice study.
Donald Butler	Archaeology	Geoarchaeological modelling of Inuit social organization.
Adrienne Cunnings	Physical Geography	Spatial and temporal resolution of sea ice thickness in the Canadian Arctic.
Pat Curry	Veterinary Medicine	Blood-on-filter-paper for monitoring caribou health: Efficacy, community-based collection, and disease ecology in circumpolar herds.
Mark C. Fuller	Physical Geography	Multi-frequency active polarimetric microwave remote sensing of snow-covered sea ice.
Gregory Godek	Geology	Middle to late Permian ocean acidification, Sverdrup Basin, Arctic Canada.
Bryanne Hoar	Veterinary Medicine	Impacts of climate change on the development and survival of <i>Ostertagia gruehneri</i> , a trichostongylid parasite in barren-ground caribou.
Stephanie Lapka	Physical Geography	Quantification of excess ice in permafrost within the Mackenzie Delta, NWT.
Agnieszka Pawlak	Geology	Hudson Bay lithospheric experiment: Physical rock properties.



Melissa Peters

Physical Geography

Spatial and temporal deposition patterns of snow on sea ice in Hudson Bay.

Pablo Wainstein

Physical Geography

A new photogrammetric/geophysical approach to study the interactions between subglacial hydrology and glacial dynamics for the preservation of pro-glacial icing.

Kerri Warner

Physical Geography

Spatial and temporal deposition patterns of snow on sea ice in the Canadian Arctic.

Ken Whitehead

Physical Geography

Analysing changes in the seasonal flow patterns of a polythermal Arctic glacier through a combination of ground-based photogrammetry and satellite interferometry.

BELOW: Stephanie Lapka, a master's student in physical geography at the University of Calgary, braved frigid temperatures to conduct research in the Northwest Territories. Lapka, who received a Northern Scientific Training Program grant, is using satellite imagery to analyze the impact of oceanic storm surges on vegetation and lakes in the Mackenzie Delta region.

BELOW: For the second year in a row, the Arctic Institute was asked to witness Operation Nunavut, a Canadian Ranger Sovereignty Patrol on Ellesmere Island.





Research Associates

ARCTIC RESEARCH INVOLVES AREAS OF EXPERTISE not encompassed by any one discipline or department. This is reflected in the Institute's Research Associates—a diverse group of individuals whose work is advancing the study of the North and the mission of the Arctic Institute. Their interests cover a wide range of disciplines in the natural, physical and social sciences as well as the humanities and fine arts.

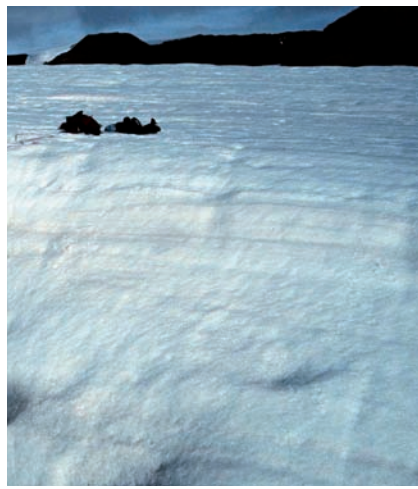
- **Don Albright**, Biology
- **Cindy Allen**, Dene Musicology
- **Charles Arnold**, Archaeology and Museology
- **William Barr**, Geography and History
- **Margaret Bertulli**, Archaeology
- **Ellen Bielawski**, Anthropology
- **Lloyd Binder**, Economic Development
- **Jean Blodgett**, Art
- **Alexander Braun**, Geodesy
- **Rai Brown McCutcheon**, Gender Studies
- **Dave Button**, Education
- **Garry Clarke**, Glaciology
- **Helen Corbett**, Film and Journalism
- **Peter Dawson**, Archaeology
- **Ken de la Barre**, Human Geography
- **Mark Dickerson**, Political Science
- **Elmer Ghostkeeper**, Aboriginal Studies
- **Jeff Gilmour**, Law
- **John Graham**, Social Work
- **Norman Hallendy**, Ethnohistory
- **Alexander Hill**, History
- **Gerald Holdsworth**, Glaciology
- **Gunhild Hoogensen**, Political Science
- **Robert Huebert**, Political Science
- **Martha Johnson**, Anthropology
- **Peter Johnson**, Geography





- **Karim-Aly Kassam**, Arctic Social Science
- **Barbara Kingscote**, Veterinary Medicine
- **Heidi Klein**, Environmental Planning
- **Susan Kutz**, Veterinary Medicine
- **P. Whitney Lackenbauer**, History
- **Nic Larter**, Zoology
- **Allice Legat**, Anthropology
- **David Lertzman**, Aboriginal Studies
- **Robert MacDonald**, History
- **Sean Maher**, Anthropology
- **Constance Martin**, Art History and Curator
- **Arthur Mason**, History, Politics and Culture
- **Virginia McGowan**, Health Sciences
- **Robert McPherson**, Geology and History
- **Frank Miller**, Wildlife Biology
- **Magdalena Muir**, Law, Environment and Resource Management
- **Dave Norton**, Ecology
- **Marc Poulin**, Medicine and Kinesiology
- **Martin Raillard**, Arctic Ecology
- **William Semple**, Northern Housing
- **Alan Smart**, Anthropology
- **Jane Sproull Thomson**, Inuit Art & Culture, Heritage Planning
- **Mary Stapleton**, History and Planning
- **Emma J. Stewart**, Geography
- **Wayne Strong**, Forest Ecology
- **Susanne Swibold**, Film and Journalism
- **Darielle Talarico**, Ecotourism
- **Callum Thomson**, Archaeology and Expedition Cruise Tourism
- **Jack van Camp**, Environmental Science
- **Robert van Everdingen**, Hydroecology
- **Wanda Wuttunee**, Native Studies, Law and Management
- **John James Yackel**, Geography
- **Jose Zorrilla**, Interdisciplinary





Selected Research Publications

ONE MEASURE BY WHICH RESEARCH INSTITUTES AND THEIR ASSOCIATES are judged is through scholarly research. By this measure, the Arctic Institute receives high grades. Many of our research associates, members and fellows have active research programs and are renowned in their fields. What distinguishes our group of scientists is the multidisciplinary nature of their work. A few of the areas in which Arctic Institute associates work are political science, social work, geology, geography, glaciology, veterinary medicine and archaeology.

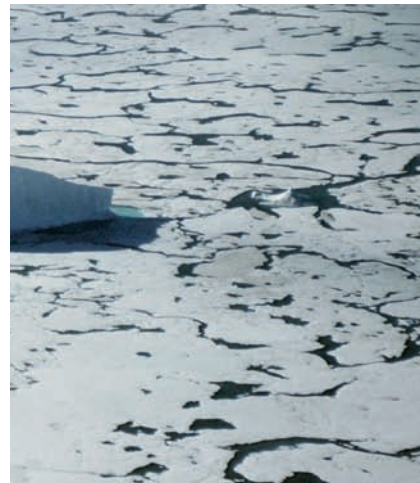
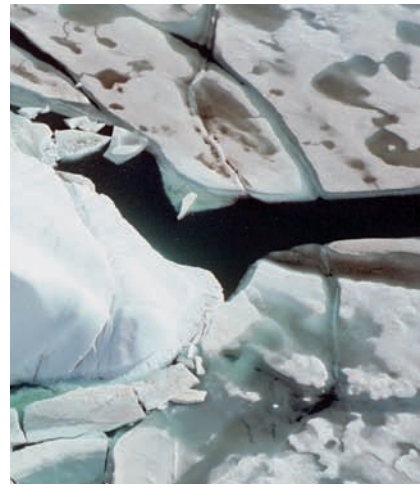
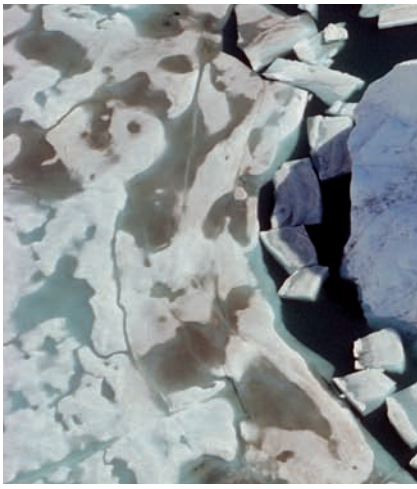
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Financial Report for the Fiscal Year Ended March 31, 2009 (Condensed)

THE INSTITUTE'S FINANCIAL YEAR ENDS ON MARCH 31 and the figures here reflect the latest complete year and comparatives. The information presented in this document is an extract of the financial statements. This summary financial information cannot be expected to provide as comprehensive an understanding of the performance of the Institute as the full financial statements. Reviewed financial statements can be obtained by contacting the Institute. The Institute is a wholly owned subsidiary of the University of Calgary. The results of operations and the financial position of the Institute are included in the consolidated financial statements of the University. To reflect the total amount of Institute activity, project grants of \$27,000 (2008: \$17,600) and expenses in the amount of \$23,500 (2008: \$19,600) were also administered. These grants were received by the University of Calgary and were administered by the Institute. Funding for general and administrative expenses is received from the Province of Alberta, Department of Advanced Education and Technology, through the University. The University has also provided substantial in-kind support.



Statement of Financial Position as of March 31, 2009

	2009	2008
ASSETS		
Current Assets:		
Due from University of Calgary	\$522,630	\$744,141
Petty cash	400	400
Accounts receivable	107,125	55,555
Inventory	23,055	11,048
Prepaid expenses	2,610	2,553
	\$655,820	\$813,697
Investments	901,514	1,050,878
Capital assets and collections	680,252	677,792
	\$2,237,586	\$2,542,367
LIABILITIES AND NET ASSETS		
Current Liabilities:		
Accounts payable and accrued charges	\$84,451	\$77,685
Deferred revenue	84,681	58,298
Deferred contributions	70,903	126,125
	\$240,035	\$262,109
Unamortized deferred capital contributions	124,910	118,476
Net Assets:		
Unrestricted net assets	860,858	1,125,444
Investment in capital assets and collections	555,341	559,316
Internally restricted net assets	49,385	54,537
Endowments	407,057	422,485
	1,872,641	2,161,782
	\$2,237,586	\$2,542,366

Statement of Revenue and Expense for Year Ended March 31, 2009

	2009	2008
Revenue:		
University of Calgary and Government grants	\$503,156	\$450,378
Sales of services and products	248,989	252,243
Donations and other grants	291,172	227,452
Investment (loss) income	(155,441)	(3,557)
Earned capital contributions	6,848	5,878
	<u>\$894,724</u>	<u>932,393</u>
Expense:		
Salaries	697,078	746,999
Benefits	102,326	96,689
Materials	313,219	267,531
Grants and scholarships	15,300	23,133
Amortization	15,853	12,998
Travel and meeting	27,663	25,821
	<u>1,171,439</u>	<u>1,173,171</u>
Excess of revenue over expense	<u>(\$276,715)</u>	<u>(\$240,778)</u>

Statement of Cash Flows for the Year Ended March 31, 2009

	2009	2008
Cash provided from (used in):		
Operating Activities:		
(Deficiency)/Excess of revenue over expense	(\$276,715)	(\$240,778)
Items not affecting cash flow:		
Amortization of capital assets	15,853	12,998
Amortization of deferred capital contributions	(6,848)	(5,878)
(Gain) Loss on non-endowed and internally restricted endowment investments	187,738	75,294
Net change in non-cash working capital	(40,841)	40,449
Cash applied to operating activities	(\$120,814)	(\$117,915)
Investing Activities:		
Purchase of capital assets, net	(15,313)	(31,369)
Proceeds from (purchase of) long-term investments, net	(100,725)	65,293
Cash applied to investing activities	(116,038)	33,924
Financing Activities:		
Endowment contributions	2,059	31,178
Capital contributions	13,282	11,607
Cash generated through financing activities	15,341	42,785
Increase in cash and cash equivalents	(\$221,510)	(\$41,206)
Due from University of Calgary at beginning of year	744,141	785,347
Due from University of Calgary at end of year	\$522,630	\$744,141
Net change in non-cash working capital:		
Accounts Receivable (increase) / decrease	(\$51,571)	\$7,880
Inventory	(12,006)	1,054
Prepaid Expenses	(57)	192
Accounts Payable	6,767	(9,605)
Deferred Revenue	26,383	(7,257)
Deferred Contributions*	(10,358)	5,807
	(\$40,842)	\$40,449

* Adjusted for unrealized investment gains/losses



Financial Support

Financial Support for the programs of the Arctic Institute, Canadian Corporation, during 2009, was provided by the Government of Canada, the Government of Alberta, the University of Calgary, the University of Alaska, over 1200 members and subscribers, and the following corporate associates and sponsors:

- ATCO Structures and Logistics
- BP Canada Energy Company
- Canadian Association of Petroleum Producers
- Chevron Canada Resources Ltd.
- Colt Engineering Corporation
- ConocoPhillips Canada Resources Ltd.
- Devon Canada Corporation
- EnCana Corporation
- Foothills Pipeline
- Imperial Oil Resources Limited
- MGM Energy
- Petro-Canada
- Shell Canada Limited
- TransCanada Pipelines Limited



Arctic Institute of North America

MEMBERSHIP APPLICATION

Thank you for your interest in becoming a member of the Arctic Institute of North America. The only requirement for membership in AINA is an interest in the North. Members receive the quarterly journal Arctic while supporting a vibrant organization devoted to the dissemination of northern research and knowledge.

MEMBERSHIP IS BY CALENDAR YEAR, JANUARY TO DECEMBER. DUES ARE AS FOLLOWS:

Member.....	\$ 75	Membership Fee	\$ _____	Require a donation
Student.....	\$ 50	5% GST (Canada only)	\$ _____	tax receipt? <input type="checkbox"/>
Retired (65 or older)	\$ 50	Sub-Total	\$ _____	Donations of \$20
Subscribing Organization.....	\$ 200	Donation (optional)	\$ _____	or more are
Lifetime Membership.....	\$ 750	TOTAL	\$ _____	eligible for a tax
Corporate Associate	\$ 2500			receipt.

(Corporate Associate dues include Subscribing Organization fee and GST / U.S. and overseas please pay in U.S. dollars)

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Total amount of payment, including taxes:

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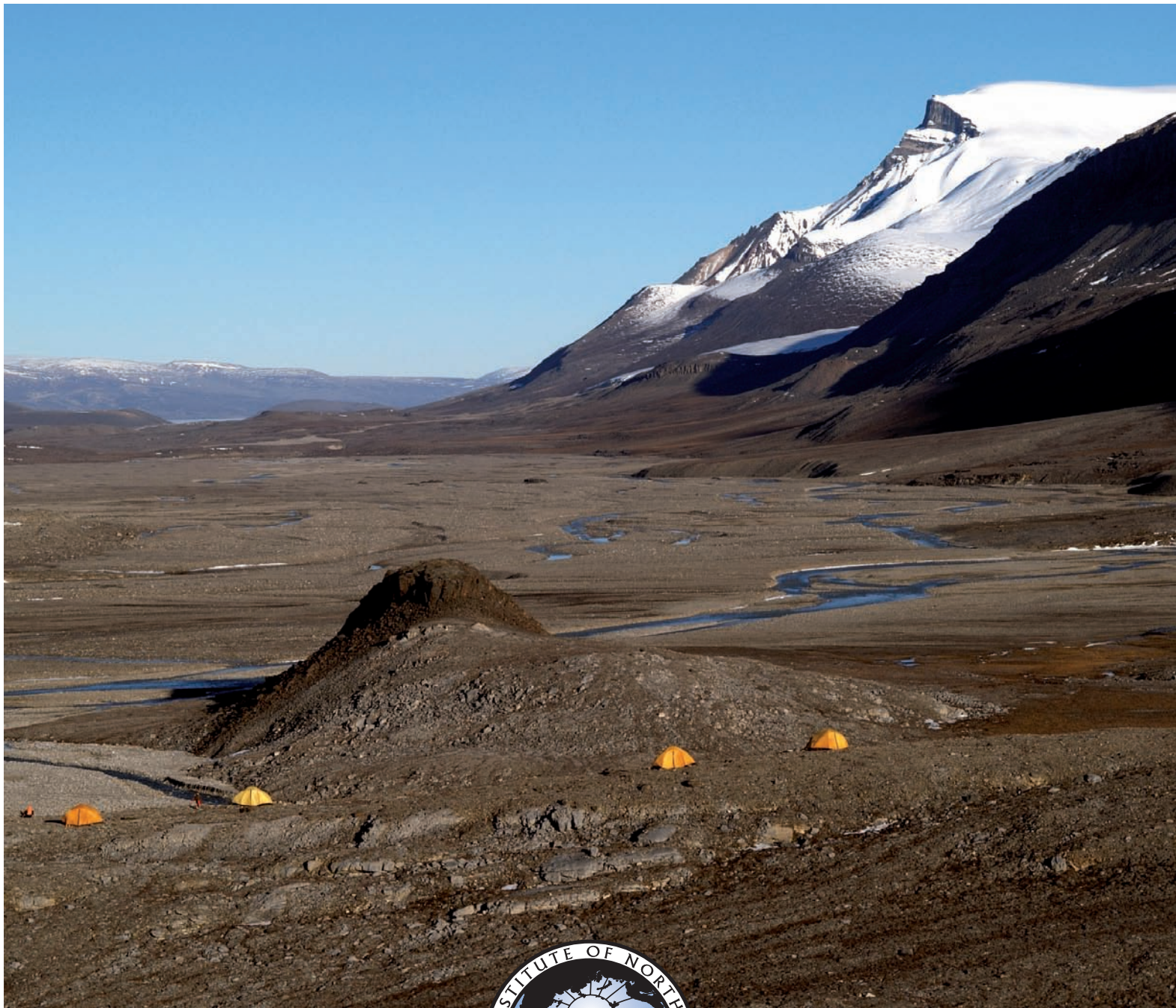
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