



THE BIRDFISH

SPRING 2016

Churchill Northern Studies Centre
Newsletter

inside:

The Seals of Churchill PAGES 2/3

Manitoba Liquor & Lotteries
Supports Science PAGE 4

Science Odyssey PAGE 5

Featured
Course PAGE 6

4
FOR
40

Campaign Update PAGE 7





Behaviour and local abundance

Dr. Stephen Petersen, Assiniboine Park Zoo, Conservation and Research Department

of harbour/ringed seals in Churchill

SEALS ARE A KEY COMPONENT OF THE ARCTIC ECOSYSTEM AND ESPECIALLY IMPORTANT TO INUIT AND TO POLAR BEARS. THE AREA WHERE THE CHURCHILL RIVER MEETS THE HUDSON BAY IS BIOLOGICALLY RICH AND HOME TO MANY RINGED SEALS AND HARBOUR SEALS. RINGED SEALS AND HARBOUR SEALS ARE ICE ADAPTED SEALS AND are therefore predicted to be affected by climate change, in particular by the shortening of the sea ice season. It is expected that the relative abundance of ringed seals and harbour seals is likely to shift as environmental conditions shift toward a warmer Hudson Bay. In particular, longer open water seasons may be advantageous to the temperate-adapted harbour seal and disadvantage to the ice-adapted ringed seal. Monitoring population numbers and developing ways to track the trends in population is an important part species conservation and management. This makes Churchill an ideal

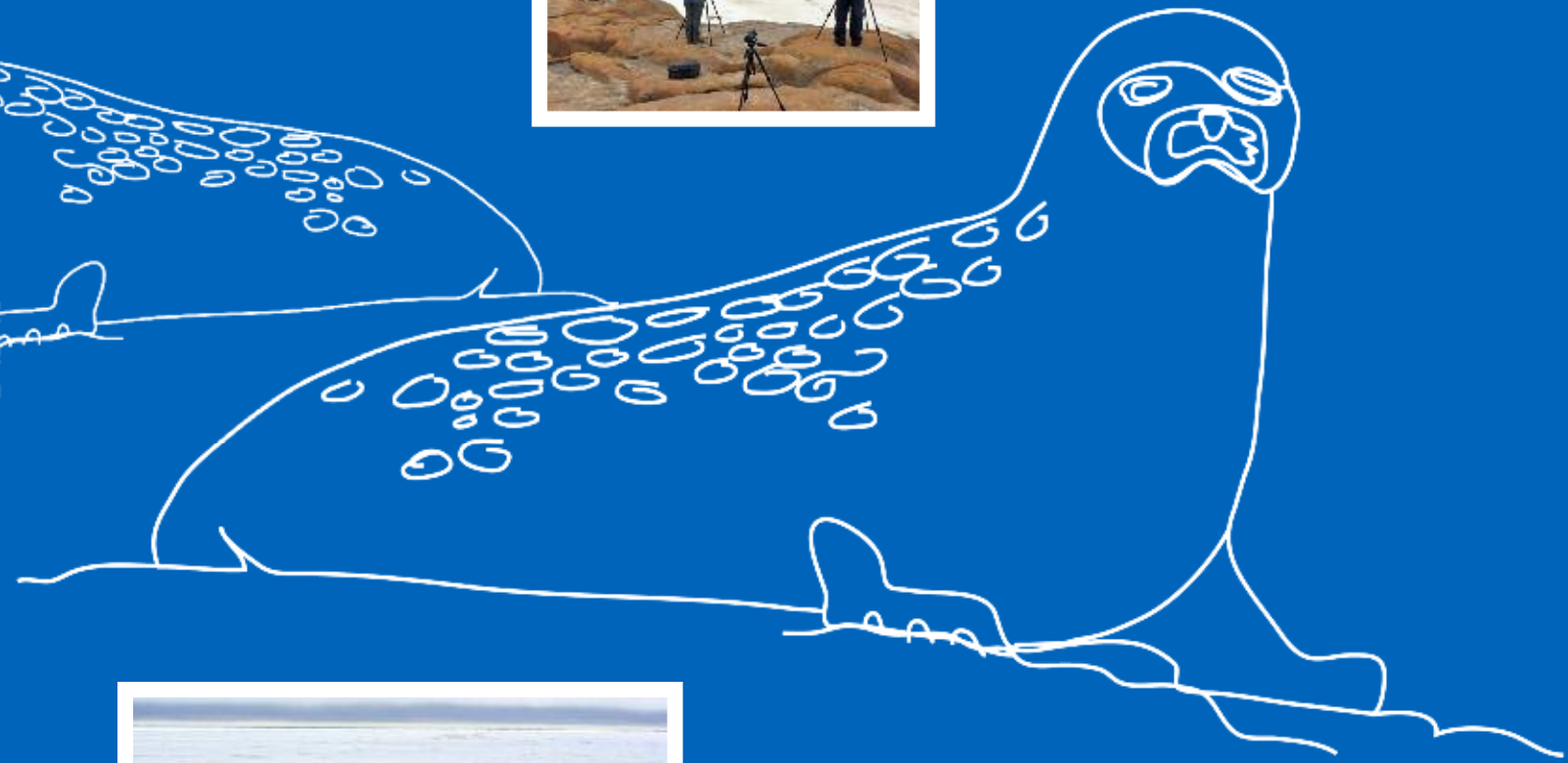


Dr. Stephen Petersen

area to study ringed seal and harbour seal behaviour and population dynamics.

The objectives of this project are to understand how the ringed and harbour seals use the sea ice and Churchill River Estuary for basking in the sun during the springtime. While these seals are hauled-out on the sea ice observations of their behaviour will help understand their activity budgets and investigate photo identification methods to refine estimates of population size. Basking locations are also ideal for the collection of hair samples for non-invasive behavioural research and estimates of population size.

Systematic counts of ringed seals that are hauled out on the ice at specific vantage points along the Hudson Bay coastline between Cape Merry and the CNSC were carried out in late



Counting seals on the ever shifting sea ice

May and early June. Harbour seals were systematically counted through direct observation in the spring and with Gigapan® photography in the summer and autumn (gigapan.com). During systematic counting of the seals, behavioural observations were also made using direct observations and video recordings. Collections of hair samples were made from known ringed seal basking areas.

RESULTS:

- Harbour seals were observed earlier in 2015 (June 3) than 2014 (June 6) as the ice broke earlier in the spring.
- Harbour seal pups were first observed at the weir on 7 June, three days earlier than seen the year before. In comparison, in the late 1990s and early 2000s there were no observations of pupping in the Churchill River estuary.
- Harbour seal counts fluctuated during the shoreline observation period, a maximum number of seals were counted on 8 June and was 80 animals. This number is double what was seen in the late 1990s.

- 24hr observations taken on the weir indicated the largest number of hauled out harbour seals between 19h30 and 20h00.
- Number of ringed seals fluctuated during the field observations and location of these seals also changed as ice break up resulted in less near shore ice for haul-out.
- 15 harbour seals and 47 ringed seals were observed for vigilance behaviours in relation to group size and orientation (data yet to be analyzed).
- Hair and scat samples were collected from haul-out locations on the sea ice. These samples are being archived and will be analysed at the laboratory in the Leatherdale International Polar Bear Conservation Centre to obtain genetic profiles. ❄️



Sculpture: Charlie Kittosuk, Sanikiluaq



We're Ready to Rumble!

The Manitoba Liquor & Lotteries Small Capital Sponsorship Program Truly Helps

For the CNSC to stay at the cutting edge and offer the best to researchers and learners, we need the support to make capital improvements of our facilities and equipment. Manitoba Liquor & Lotteries Small Capital Sponsorship Program has generously provided support to help the CNSC make some of these vital improvements in the past year.

The support of Manitoba Liquor & Lotteries has helped the CNSC to acquire:

- **Garage Doors:** Before the support of Manitoba Liquor & Lotteries, CNSC maintenance staff had to work on our buses outside. Given the risks of cold and polar bears, this was not a safe situation for our staff! Now, we can keep our buses running for researchers and learners, without having to worry so much about the local wildlife!
- **Classroom Computers:** In order to provide engaging learning experiences, the CNSC requires up to date technology. The support of Manitoba Liquor & Lotteries provided support for 3 desktop computers and 2 laptops. These are being used to by learners to process data and conduct research.



Students and staff check out the new classroom additions.

- **Bombardier Tracked Vehicle:** This historic vehicle is ideal for the work of the CNSC; powerful enough to haul freight to remote locations for researchers, but with enough passenger room to take groups to the tundra, boreal forest and sea ice for one of a kind learning experiences!

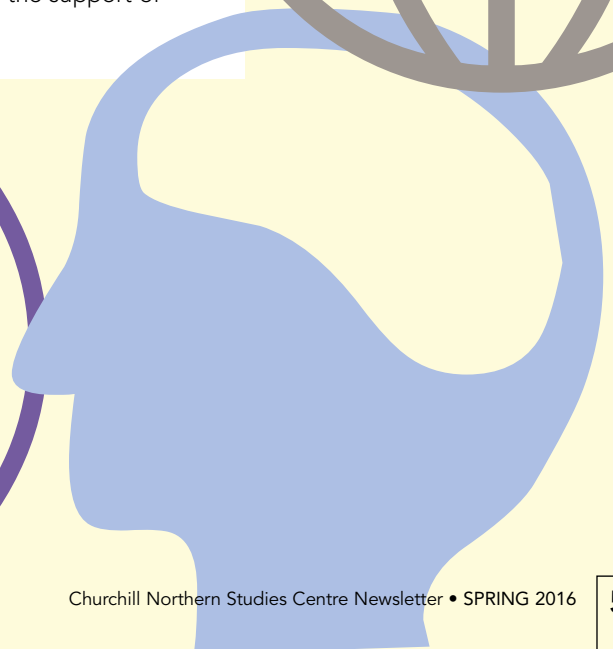
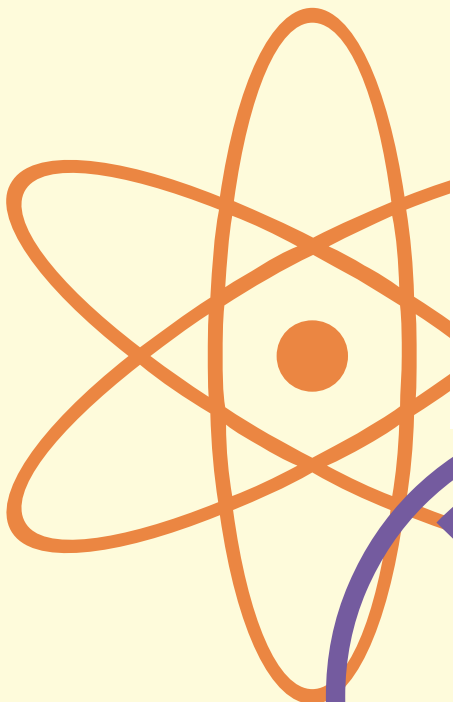
The CNSC is grateful for the support of Manitoba Liquor & Lotteries and their commitment to research and education in the North. ❄️



The Churchill Science Challenge

Science Odyssey brings together a series of fun activities across the country from Friday May 6 through Sunday May 15 and the CNSC was proud to participate and celebrate science along with other national partners. Our activities were 'The Churchill Science Challenge' and consisted of two parts - an online contest which ran the length of the Science Odyssey campaign and opened up to audiences across the country; the other focused on our local community. To enter our online contest, participants submitted a science question related to Churchill that you would like to learn more about!

Submissions were accepted through email and social media by adding the hashtags **#Churchillsciencechallenge** and **#OdySci**. The winning entry was given a live chat presentation with CNSC staff sharing knowledge regarding their question. The CNSC gratefully acknowledges the support of the Natural Sciences and Engineering Research Council of Canada and the Canadian Association of Science Centres for the support of this event. ❄️



featured course

Wild Planet: Whales & Wonders of the Subarctic in Summer

August 18-23, 2016

Get ready for our most active program! 5 days of exploring the diverse landscapes that make Churchill such a special place! Explore the tundra and learn about the flora and fauna that call it home. Take a short drive from the CNSC and visit the boreal forest to see the forest in the subarctic. On a walk through the intertidal zone, you can find some of the marine life that lives in Hudson Bay, and maybe even find a fossil on your walk on the beach dunes. Learn about the research happening in some of the coastal ponds and wet lands in the region. We will hop a ride on a boat to see the belugas that visit each summer and see the Churchill River, and explore Prince of Wales Fort. While we explore these awesome ecosystems, your instructor James will have a sharp eye for the hundreds of polar bears that call the area home in the summer. After a day in the field, nothing beats coming back to the CNSC for a home cooked meal and great conversation with your fellow learning vacation participants and some of the researchers who call the centre home during the summer. Your evening will end with a lecture with your instructor to provide even more insight into this fascinating place! Whales and wonders of the subarctic in summer; come see the best that Churchill has to offer!

BOOK TODAY!



Course Instructor: James Kushny

Upcoming Courses

CNSC Learning Vacations:

Spring's Wings June 9-14, 2016 *Space Still Available!*

Belugas in the Bay: Through the Camera Lens June 23-28, 2016 *Space Still Available!*

Wild Planet: Whales & Wonders of the Subarctic in Summer August 18-23, 2016

NEW! Lords of the Arctic: Ecology of Hudson Bay's Polar Bears **SPECIAL SESSION** October 11-18, 2016

~~Lords of the Arctic: Ecology of Hudson Bay's Polar Bears~~ November 3-10, 2016 *Sold Out*

~~Lords of the Arctic: Ecology of Hudson Bay's Polar Bears~~ November 10-17, 2016 *Sold Out*

Winter Skies: Aurora and Astronomy in Churchill January 19-24, 2017

Winter Skies: Aurora and Astronomy in Churchill February 16-21, 2017

North of 58: Subarctic Winter Ecology March 7-11, 2017

BOOK ONLINE!

Upcoming Road Scholar Programs:

Summer in the Subarctic: Beluga Whales and Natural Wonders in Churchill July 26-August 3, 2016

Lords of the North: Ecology of Hudson Bay's Polar Bears October 19-24, 2016

Lords of the North: Ecology of Hudson Bay's Polar Bears October 24-29, 2016

Lords of the North: Ecology of Hudson's Bay's Polar Bears October 29-November 3, 2016

Into the Arctic Skies January 25-30, 2017

Into the Arctic Skies February 22-27, 2017

For more information on Road Scholar programs visit www.roadscholar.org



FOR RESERVATIONS CONTACT:

Churchill Northern Studies Centre, Box 610, Churchill, Manitoba, Canada R0B 0E0
TEL: (204) 675-2307 • FAX: (204) 675-2139
cnscc@churchillscience.ca • www.churchillscience.ca

Visit www.churchillscience.ca/events

Join us in Sustaining the North for the Future



4 for 40 Campaign Update

2016 Marks the start of our 40th anniversary year. Since 1976 we have been working to "understand and sustain the North" and we are excited that so many of you have joined in our 4 for 40 campaign! Since the start of the campaign last June we have experienced a huge outpouring of support!

The majority of our support has been from members like you! Your support has provided:

A full time programming coordinator to assist school and youth groups in visiting the Churchill Northern Studies Centre.

Hundreds of days of accommodations, vehicle use and financial support for researchers.

The Birdfish Fund, a greatest needs fund to support the CNSC into the future.

What's next? September marks our 40th anniversary, and we have lots of great events planned to celebrate 40 years of understanding and sustaining the north.

August 28th is CNSC Day! Stay tuned for a full list of the day's events!

Already a donor? Consider becoming a monthly supporter. Help sustain the CNSC and enjoy exclusive benefits! Visit <https://www.canadahelps.org/en/charities/churchill-northern-studies-centre/> and become a monthly donor today!

Support the CNSC into the future. For information about including the CNSC in your estate planning, contact us for more information.

Established in 1976, the Churchill Northern Studies Centre is an independent, non-profit research station located along the western coast of Hudson Bay.

board of directors

Louise Lawrie (Chair) – Churchill Community Development Corporation
Christopher Storie (Vice-Chair) – University of Winnipeg
Richard Bello (Treasurer) – Member-at-Large
Erika Ingebritson (Secretary) – Member-at-Large
Mario Tenuta – CNSC Users' Representative
Mary Benbow – University of Manitoba
Matthew Bunka – Duke of Marlborough School
Dave Hicks – Manitoba Aboriginal and Northern Affairs
Melissa Gibbons – Parks Canada Agency
Joe Stover – Member-at-Large
Pete Whittington – Brandon University
Shane Hutchins – Town of Churchill
Rob Penner – University College of the North
Wayde Roberts – Manitoba Conservation
James Roth – Member-at-Large
Dwight Allen – Churchill Chamber of Commerce

staff

Executive Director
Grant MacNeil
Assistant Director
Heidi den Haan
Special Projects Assistant/Bookkeeper
Kim Daley
Scientific Coordinator
LeeAnn Fishback, Ph.D.
Research Technician
Matt Webb
Seasonal Research Technicians
Fiona LeTaro and Robyn Nairn
Program Coordinator
Stephanie Puleo
Program Assistant
Evan Roberts
Cook
Terrapin Harvich
Second Cook
Ella Wills
Housekeeping
Patsy Neepin and Sharon Anderson
Fleet & Facilities Supervisor
Phillip Park
Maintenance Assistant
Rene Preteau

The CNSC is a registered Canadian charity in part supported by the Manitoba Department of Education and Advanced Learning and Manitoba Conservation.

The Birdfish Newsletter is produced by CNSC staff with assistance from researchers and program participants.

Latitude: 58° 44.16'N Longitude: 93° 49.09'W
P.O. Box 610, Launch Road
Churchill, Manitoba
R0B 0E0 Canada
email: cnscc@churchillscience.ca

p: 204.675.2307

f: 204.675.2139

www.churchillscience.ca

churchillnorthernstudiescentre



Printed in Canada on recycled paper using vegetable based inks. PLEASE RECYCLE.

Join us in Sustaining the North for the Future

4 FOR 40

The CNSC Turns 40 in 2016!

It's an incredible time to be a part of this organization. For the last four decades we have welcomed up to 200 researchers per year, facilitated cutting-edge scientific studies that catalyze change, hosted the public in hands-on education opportunities, been a hub for culture and heritage and helped support Churchill's economy. We even moved into a beautiful new

facility. The board and staff of the CNSC are grateful to everyone who has contributed to the success of the Centre over the past 40 years. We are leaps and bounds from where we began, and we're excited for the future.

What is 4 for 40?

We have launched a campaign to raise \$4 Million to celebrate 40 years of leading research and education in the Canadian sub-Arctic! We will focus on expanding and enhancing our school and youth programming, so that we can be a better learning centre, our Northern Research Fund, so that we can be a better research facility and our Birdfish Endowment Fund, so we can better plan for the future. We want to be the best that we can possibly be, and we can't wait for you to join us to help achieve this.

contribute

Your contribution is still needed to ensure that WE meet all the expectations that YOU, our participants, researchers, educators, donors and members have for the future of the CNSC. No contribution is too small. Every gift counts.

How to contribute:

Visit our website www.churchillscience.ca – click the "Donate Now" button to donate securely through our partner Canada Helps.

Visit our Canada Helps Giving Page – <https://www.canadahelps.org/en/charities/churchill-northern-studies-centre/>

Contact Kim at 204 675 2307 or daley@churchillscience.ca – and she will process your donation personally.

Clip the form below and mail to CNSC, Box 610, Churchill, MB, ROB OE0, Canada



Help Us Save \$\$\$\$ and Trees...

Did you know that you can receive the *Birdfish* via email?

Help the CNSC save on postage and save trees by opting to receive your *Birdfish* via email.

Contact Kim at 204 675 2307 or daley@churchillscience.ca and say I want to save trees! ❄️

join, renew, support

the Churchill Northern Studies Centre Today!

We rely on our membership to provide the support and funding needed to make the CNSC a place for world class research and education programs in the Canadian subarctic. Join us now and be part of these exciting times at the CNSC. Already a member? Use this form to ensure your membership remains current. Renew or Join today!

Name: _____ E-mail: _____ Tel: _____

Address: _____ City: _____ Province/State: _____ Postal/Zip Code: _____

In accordance with the Personal Information Protection and Electronic Documents Act, names, addresses or other personal information collected by Churchill Northern Studies Centre is used for internal purposes such as informational mailings, membership renewals and other communications, and is not shared with any third party. Complete details of our privacy policy are available by contacting the CNSC.

NEW* membership RENEW* my membership I would like to receive my copy of *The Birdfish* in electronic form

Individual \$50 Student/Senior \$40 Family \$80 Corporate \$500 *One-year CNSC membership

I want to support the CNSC Please use my donation of \$ _____ for:

General Operations School and Youth Programming

Northern Research Fund Birdfish Endowment Fund

Tax receipts are provided for Canadian donations of \$25 or more. Membership fees are not tax-deductible.

Please detach and mail to:
Churchill Northern Studies Centre
P.O. Box 610, Launch Road
Churchill, Manitoba
ROB OE0 Canada
or call (204) 675-2307



churchillnorthernstudiescentre

Payment Information

Total amount \$ _____

cheque or money order payable to the CNSC enclosed. (Preferred)

Visa MasterCard American Express

card number: _____

expiration date (mm/yy): _____

name on card: _____

signature: _____

We appreciate your support of the Churchill Northern Studies Centre. Your donations support research and education that makes the world a better place. Thank you very much.