

# Learning about ringed seal health from contaminants science and Inuit Qaujimagatuqangit

Dominique Henri<sup>1</sup>, Magali Houde<sup>1</sup>, Jennifer Provencher<sup>2</sup>, Mick Appaqaq<sup>3</sup>, Amie Black<sup>1</sup>, Michael Janssen<sup>1</sup>, Derek Muir<sup>1</sup>  
Robert Filipkowski<sup>4</sup>, Kevin Xu<sup>4</sup>, Steve Ferguson<sup>5</sup>, Resolute Bay Hunters and Trappers Association

<sup>1</sup>Environment and Climate Change Canada, <sup>2</sup>Acadia University, <sup>3</sup>Nunavut Arctic College, <sup>4</sup>Qarmartalik school Resolute Bay, <sup>5</sup>Fisheries and Oceans Canada

## Background

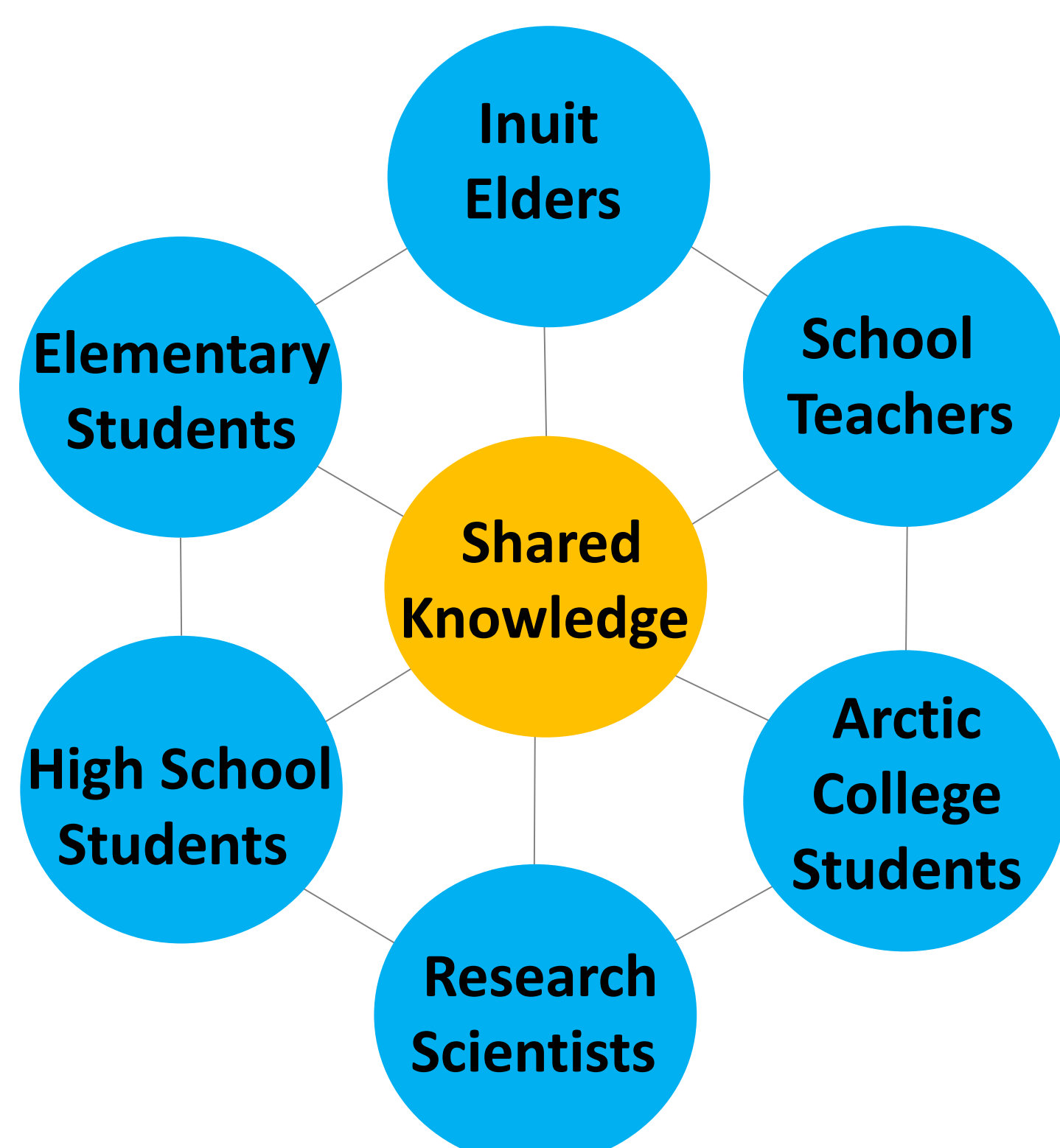
- The ringed seal is a species of high cultural, economic and nutritional importance for Inuit communities.
- Scientists conducting research on ringed seal ecology and contaminants in the Canadian Arctic work towards better understanding the ecology and health of this species, often in collaboration with northern community members.
- The Nunavut Environmental Contaminants Committee has recently suggested a need for increasing community engagement in contaminants research.

### Goal:

**Conduct collaborative workshops to expand collaboration and communication between northern residents and scientific researchers working on contaminants in the Canadian Arctic**

## Objectives

- Allow scientists studying contaminants in ringed seals to share information about their work with northern residents (with a focus on youth in particular).
- Provide an opportunity for Inuit elders to share their knowledge with students and researchers in seal ecology and traditional methods for butchering seals, preparing seal skin and identifying abnormalities in harvested game.
- Increase the engagement and interest of northern students in contaminants research and traditional seal harvesting.
- Increase the capacity of northern residents (and Inuit youth, in particular) to engage in scientific research on northern contaminants.
- Identify best practices for engaging and communicating with Inuit youth as part of contaminants research.

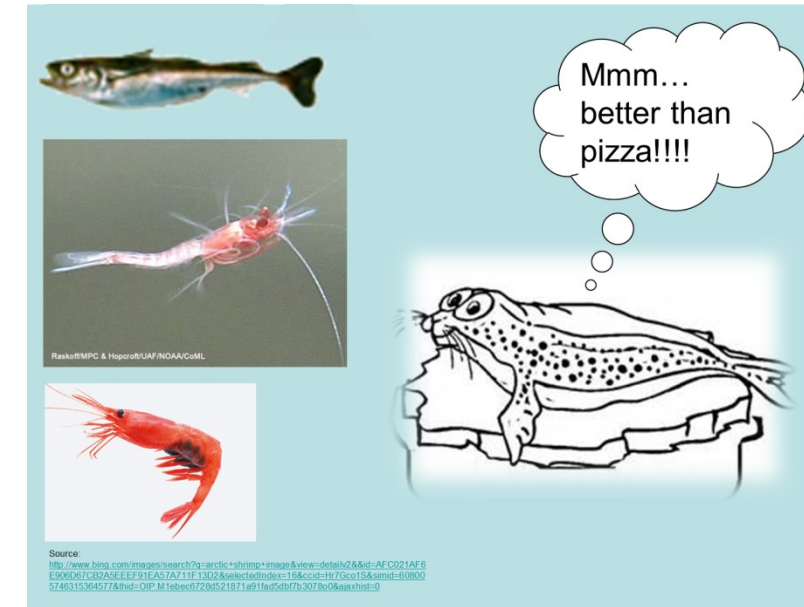


## Resolute Bay 2016 – Qarmartalik School Workshop Activities

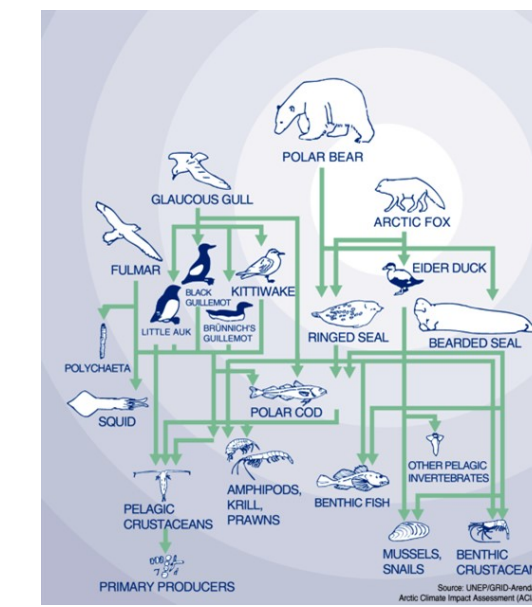
### Scientists: Food webs and Contaminants in the North



Contaminant pathways



Ringed seal diet



Arctic food web

Two BIG WORDS of the day...

BIOACCUMULATION  
BIOMAGNIFICATION

How contaminants accumulate

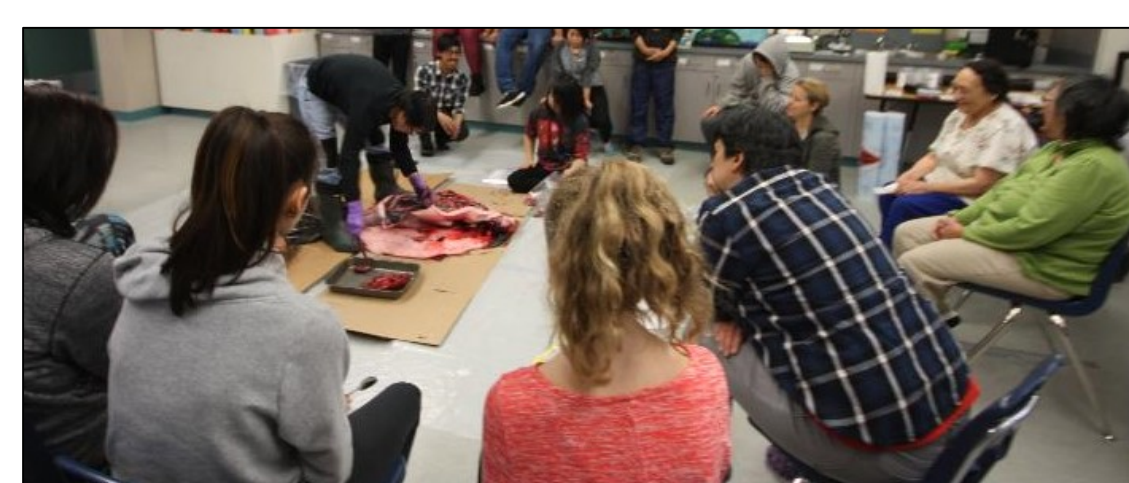


Contaminants food web game

### Community Elders: Ringed seal dissection



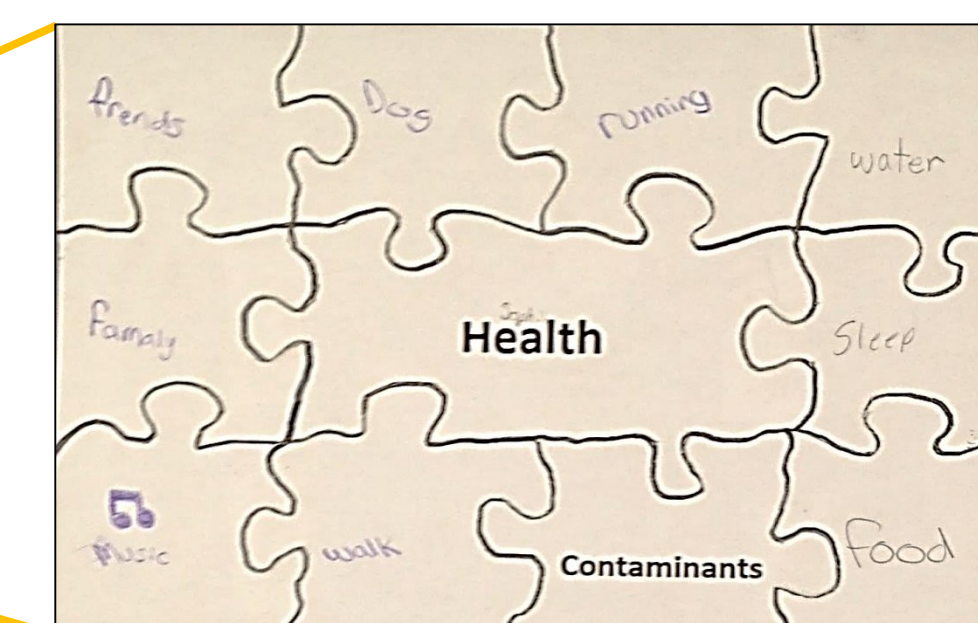
- How to **butcher** a ringed seal
- **Anatomy** of a ringed seal
- How to tell if a seal is **healthy and good to eat**



- How different parts are **prepared** for eating
- **What** parts are **used** and how.



Health-contaminants puzzle



Potential exposure to contaminants through country food consumption is only one part of the bigger “health puzzle”.



### Scientists and Teachers: Integrated contaminants information

- Country food has large nutritional benefits
- Health is influenced by many nutritional, physical, social, and environmental factors
- Connection to and knowledge of the land, family and culture benefit communities

### Scientists and Arctic College student: Different paths to becoming a scientist

- Experience in Nunavut Sivuniksavut
- What it's like in the Environmental Technology Program at the Nunavut Arctic College
- How to participate in science in the community



Checking out plankton under the microscope

## Lessons Learned

- A knowledge sharing framework in which information is exchanged, facilitates:
  - Increased engagement with participants
  - Increased diversity of participants – from all age classes
  - Opportunity to benefit from Inuit Qaujimagatuqangit
  - Opportunity to build northern research capacity at all levels.
- Leaving educational materials with the school allows the learning opportunity to continue after the scientists leave.
- For students, hands-on interactive activities foster the highest levels of engagement

## Sachs Harbour 2018 - Inualthuyak School

In the winter of 2017-18 we are holding a similar workshop in another community involved in monitoring of ringed seals through NCP, Sachs Harbour NWT. Workshop partners include:

- The Inualthuyak School
- Sachs Harbour Hunters and Trappers Committee
- Fisheries Joint Management Committee
- Environment and Climate Change Canada
- Acadia University
- Fisheries and Oceans Canada
- University of Manitoba

The long term goal is to hold a similar workshop in all the communities that contribute to the NCP core monitoring program of ringed seals.

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