



Finn Danielsen

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Work Package 4





WP4 Community-based observing

Aims To enhance community based observing programs for participatory research and capacity-building in the Arctic



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T4.1 Surveyed Arctic CBM programs

T4.2 Prepared e-library with CBM tools

T4.3 Begun piloting networks Greenland & Svalbard



T4.1 Surveyed Arctic CBM programs

175 CBM programmes identified
40 CBM programme selected
30 CBM programmes responded



T4.1 Surveyed Arctic CBM programs

Report contents:

- Capabilities of CBM programs
- Good practices
- Challenges



INTAROS

NORDECO

Nordic Agency for
Development and Ecology

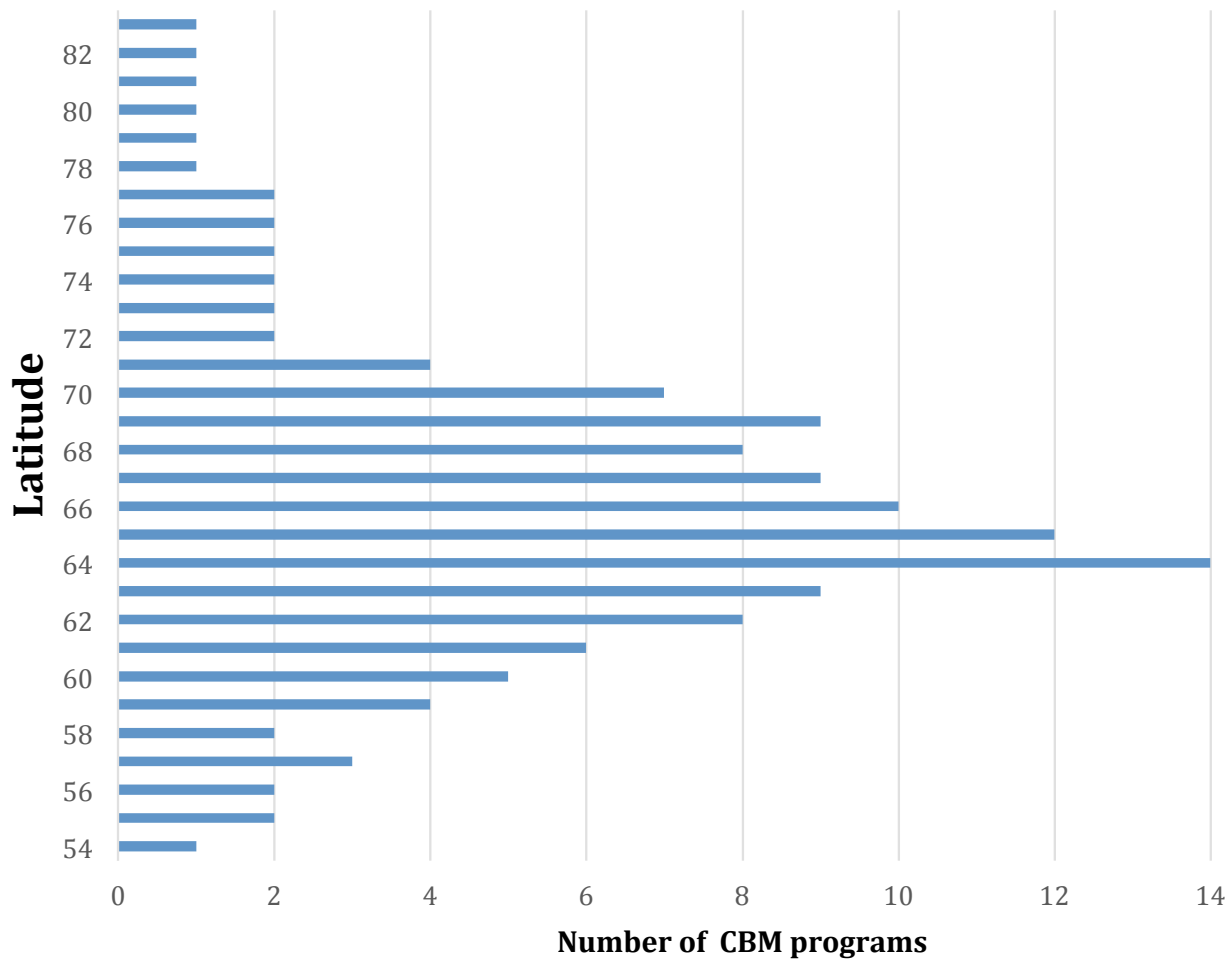




T4.1 Surveyed Arctic CBM programs



Capabilities of CBM programs



NORDECO

Nordic Agency for Development and Ecology

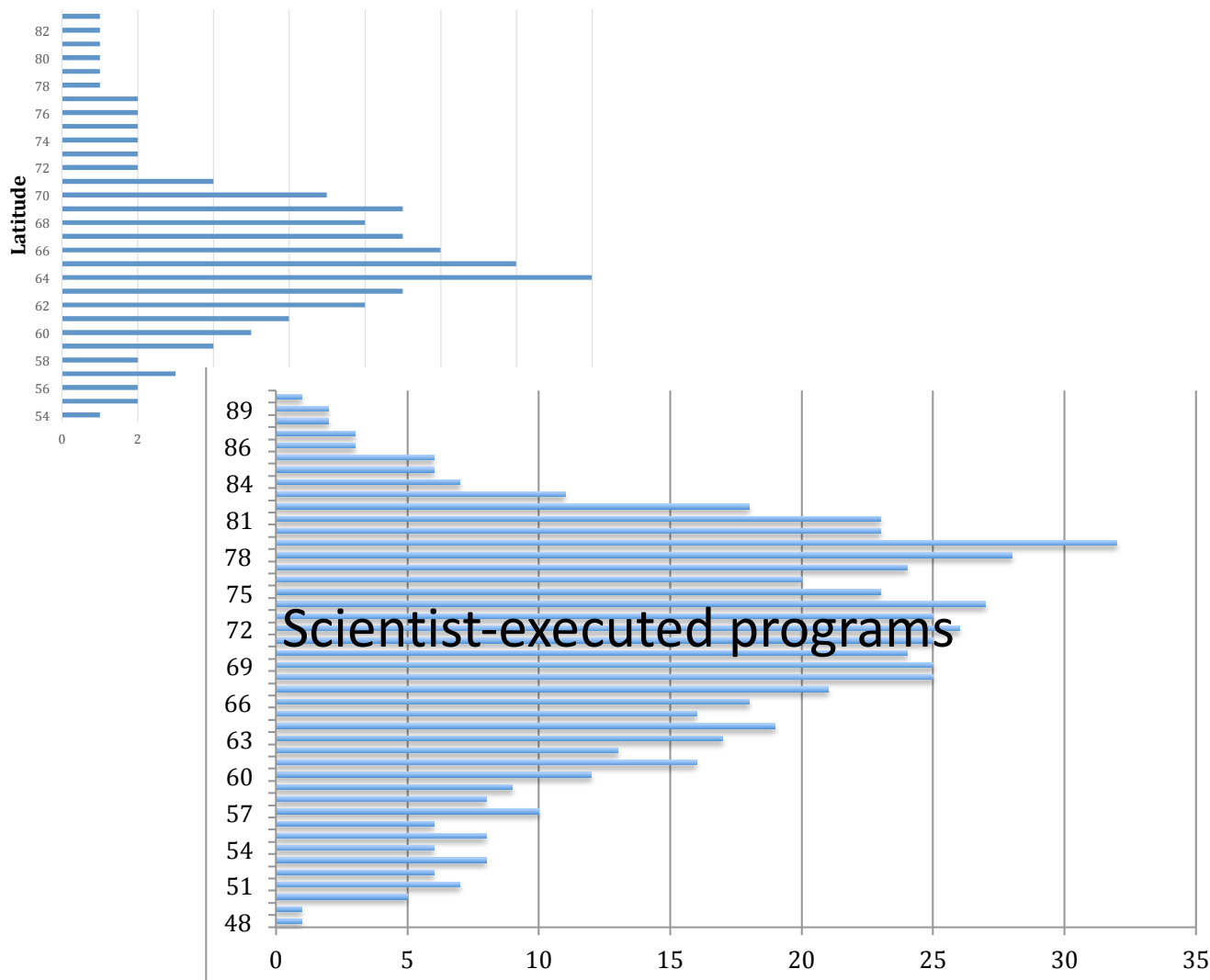




T4.1 Surveyed Arctic CBM programs

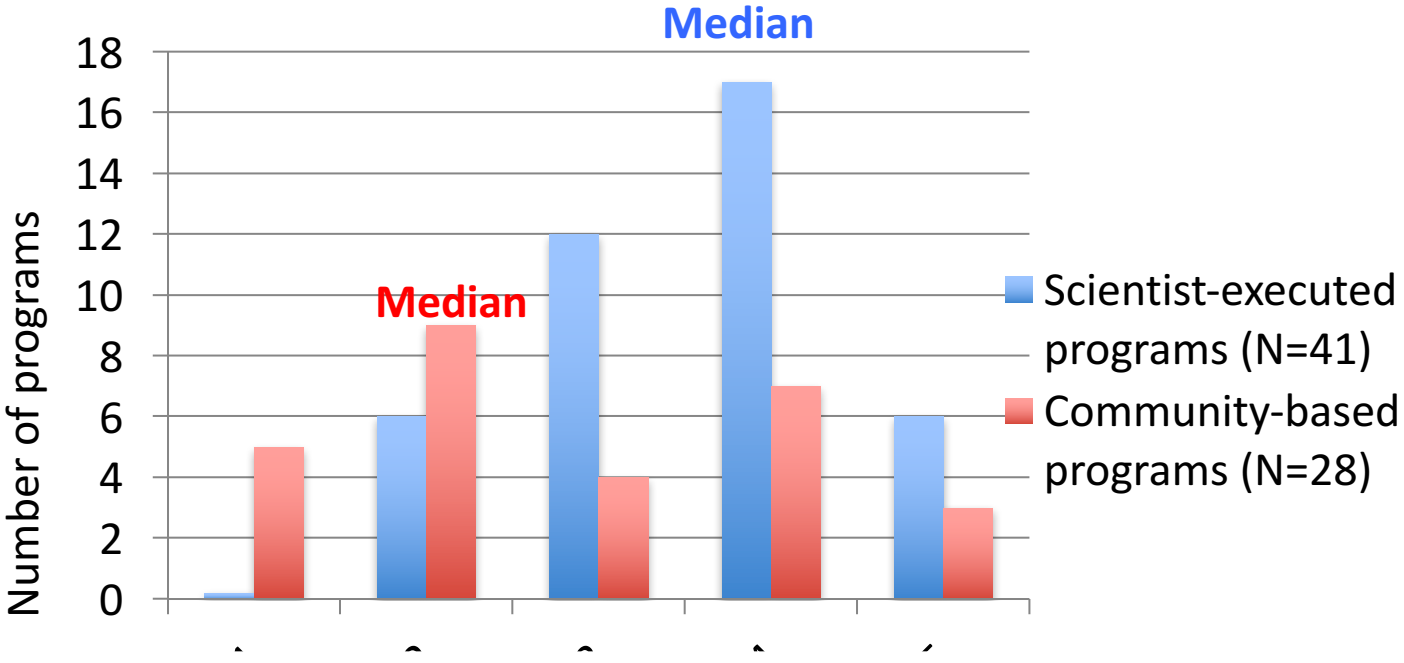


Capabilities of CBM programs





Long-term data preservation

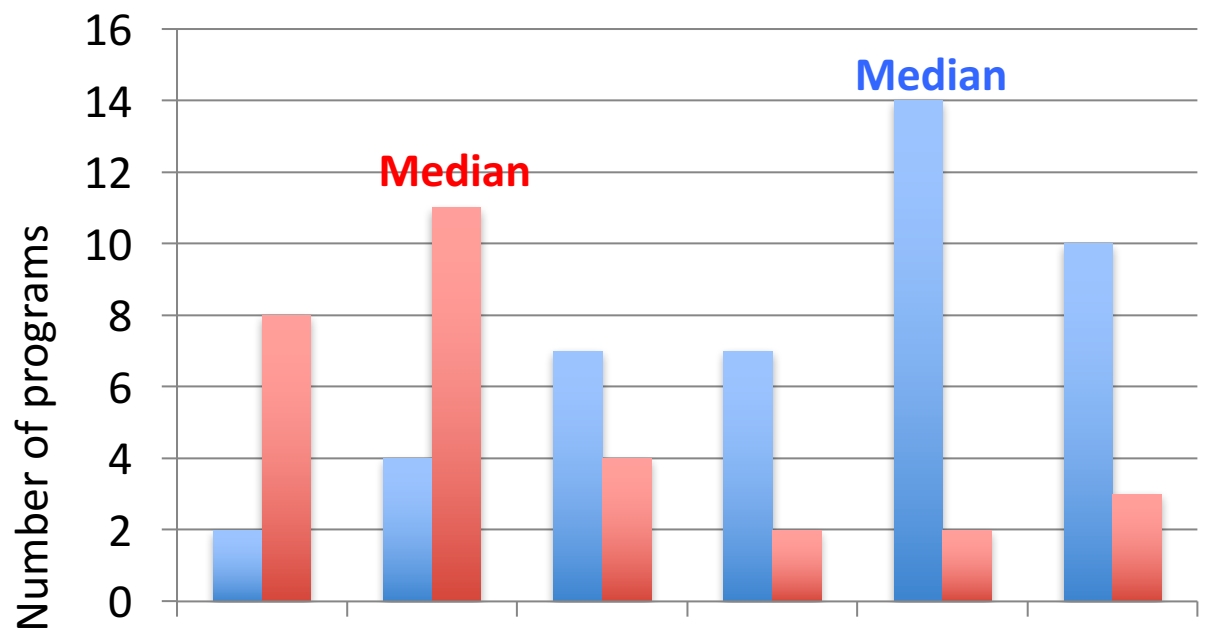


Increasing archival facilities





Current access to funding



- Scientist-executed (N=44)
- Community-based (N=30)

Increasing access to funds





Arctic CBM programs' contributions to the SDGs

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
River Owners	Y	Y	Y	?	?	Y	N	Y	?	Y	Y	Y	?	Y	N	Y	?
Favllis	Y	Y	Y	?	Y	Y	N	?	?	Y	Y	Y	?	Y	Y	Y	?
Pinianeq	Y	Y	Y	?	Y	Y	N	Y	?	Y	Y	Y	?	Y	Y	?	?
River Owners	Y	Y	Y	?	?	Y	N	Y	?	Y	Y	Y	?	Y	N	Y	?
Bird Phenology	N	N	Y	?	?	?	N	N	?	N	Y	?	Y	N	Y	Y	?
Whales	Y	Y	Y	Y	Y	N	N	?	?	Y	Y	Y	?	Y	N	Y	?
Reindeer	Y	Y	Y	Y	Y	?	N	?	?	Y	Y	Y	?	N	Y	Y	?
LEO	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	?
Seals	Y	Y	Y	Y	Y	N	N	?	?	Y	Y	Y	?	Y	N	Y	?
Reindeer	Y	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	N	Y	Y	?
Oral history	Y	Y	Y	Y	Y	Y	N	?	?	Y	Y	Y	Y	Y	Y	Y	?
BuSK	Y	Y	Y	?	Y	Y	N	?	?	Y	Y	Y	?	Y	Y	Y	?
AOK	Y	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	?	Y	Y	Y	Y	?
Moose	Y	Y	Y	Y	Y	?	N	Y	?	Y	Y	Y	?	N	Y	Y	?
SIWO	Y	Y	Y	?	Y	?	N	Y	?	Y	Y	Y	Y	Y	N	Y	?
Wildlife	Y	Y	Y	?	Y	?	N	N	?	Y	Y	Y	?	N	Y	Y	?
FMI	N	N	N	?	?	?	N	N	?	N	N	?	Y	N	N	Y	?
CSIPN	Y	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	?
Fuglaverd	Y	Y	Y	Y	?	Y	N	N	?	Y	Y	Y	?	N	Y	Y	?
Berry	Y	Y	Y	Y	Y	?	N	?	?	Y	Y	Y	?	N	Y	Y	?
SIGNs	Y	Y	Y	Y	Y	Y	N	?	?	Y	Y	Y	Y	Y	Y	Y	?
Komi/Yakutia	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	?
Nordland Ærfugl	Y	Y	Y	Y	Y	N	N	?	?	Y	Y	Y	?	Y	Y	Y	?
PISUNA	Y	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	?
ABEKS	Y	Y	Y	Y	Y	Y	N	?	?	Y	Y	Y	Y	Y	Y	Y	?
ION-YRITWC	Y	Y	Y	Y	Y	Y	N	Y	?	Y	Y	Y	Y	N	N	Y	?
Zdor	Y	Y	Y	Y	Y	?	N	?	?	Y	Y	Y	?	Y	N	Y	?
George River	Y	Y	Y	Y	Y	Y	N	Y	?	Y	Y	Y	?	Y	Y	Y	?

Table by M. K. Poulsen

Question asked: Which Sustainable Development Goal does the CBM program contribute to achieve?



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T4.2

Prepared e- library with tools for cross-weaving knowledge systems

AAOKH



- Alaska Observatory Knowledge Hub (sea-ice)
- Arctic Borderlands Ecological Knowledge Cooperative (caribou)
- Yukon River Inter-Tribal Watershed Council (freshwater)
- Berry Youth Monitoring Program (berries)
- Sea Ice for Walrus Outlook (safety at sea)
- Opening Doors to Native Knowledge-PISUNA (fish, mammals)

Integrating Indigenous Knowledge into a Community Contaminant & Climate Change Monitoring Program

Carcross/Tagish First Nation Community Report
2013
Prepared by the Yukon River Inter-Tribal Watershed Council

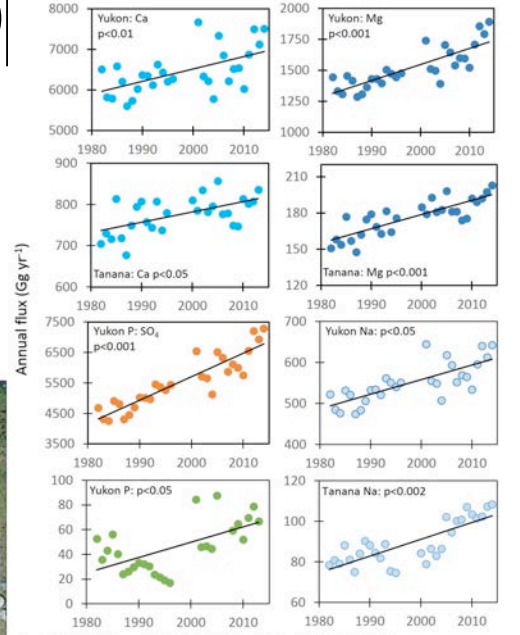


Figure 2. Annual flux increases in the Yukon and Tanana Rivers with Siel-Then trend lines.

Polar Geography, 2014
Vol. 37, No. 1, 69-91, <http://dx.doi.org/10.1080/1088937X.2014.890960>



Counting what counts: using local knowledge to improve Arctic resource management

Finn Danielsen^{a*}, Elmer Topp-Jørgensen^b, Nette Levermann^c, Piitaaraq Lovstrøm^c,
Martin Schiøtz^d, Martin Enghoff^{ce} and Pâviâarak Jakobsen^f





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Community Based Monitoring Library

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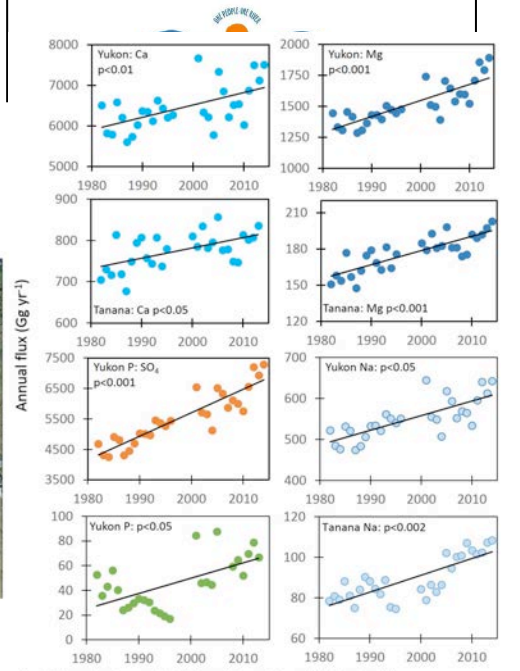


Figure 2. Annual flux increases in the Yukon and Tanana Rivers with Siel-Then trend lines.



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Community Based
Monitoring
LIBRARY



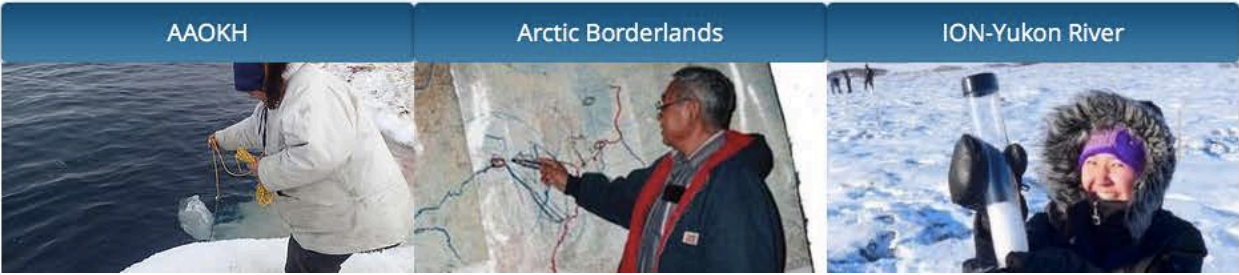
Programs and experiences:

- Home
- AAOKH
- Arctic Borderlands
- ION-Yukon River
- PISUNA
- SIWO
- Winterberry
- Contact

Community Based Monitoring Library

Here you can find information about Arctic community based monitoring programs, including the manuals they use and an overview over the most important lessons learned.

The materials have been prepared by the organizers of each community based monitoring program.





AAOKH



Arctic Borderlands



ION-YUKON River



PISUNA



SIWO



Winterberry



To become available from SAON (proposed) , Intaros and Arcticcbm.org websites



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Longyearbyen, Svalbard



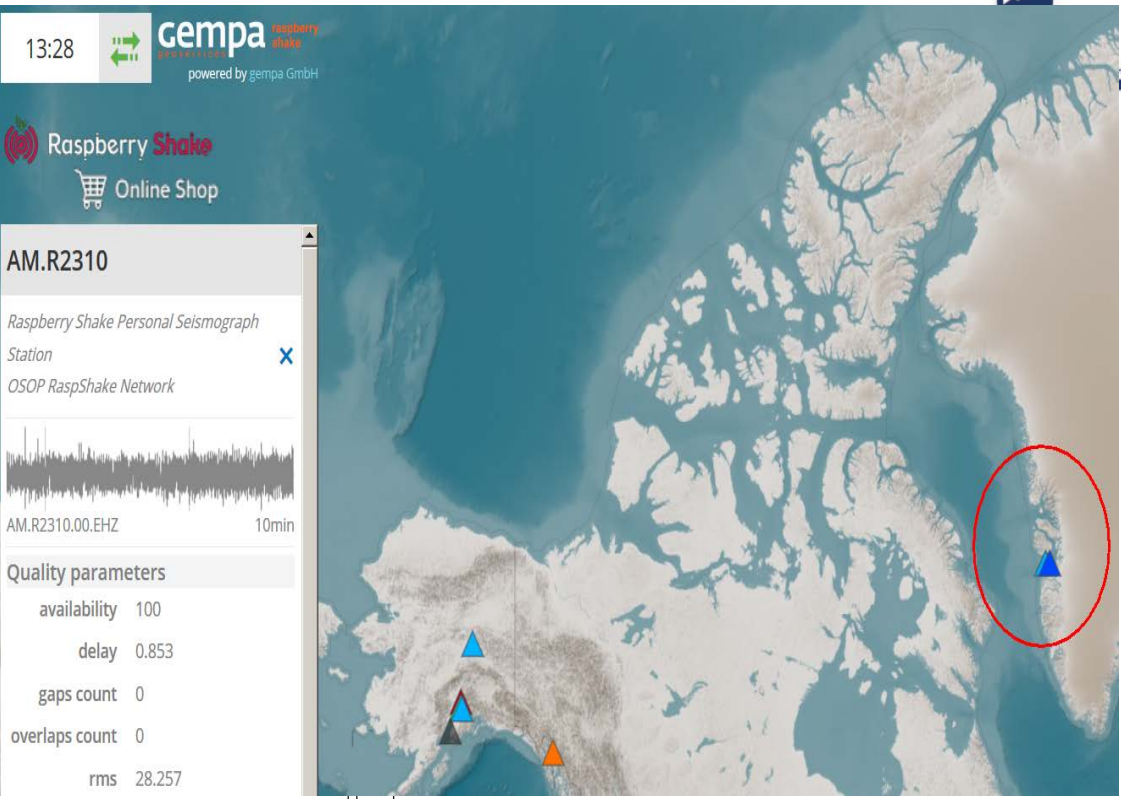
Oct. 2016



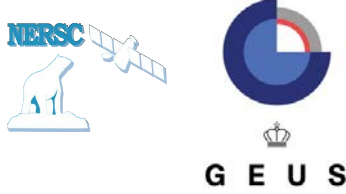
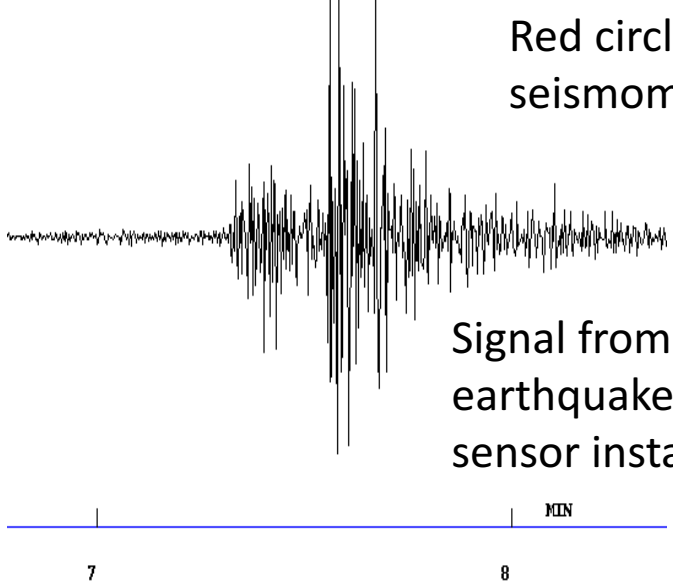
Community-based earthquake monitoring

Two families in Svalbard and West Greenland

Seismometer installed in basement with power and Internet



Red circle show location of seismometers.



Signal from magnitude 1.8 earthquake recorded by seismic sensor installed in Akuunnaq.



Community-based monitoring of land and marine ecosystems



Connecting top-down and bottom-up approaches

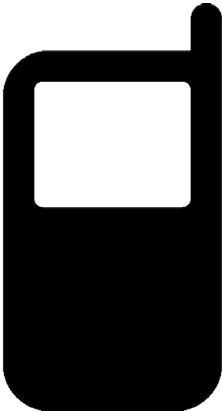


Focus group discussions with experienced fishers and hunters





Findings example – Cod



Akunnaaq, photo by community monitor Gerth Nielsen



PISUNA-net



Local Observations
PISUNA-net

[English](#) | [Greenlandic](#)

[Home](#) [Search Observations](#) [About](#) [Research methods](#) [Contacts](#) [Add observation](#) [Logged In as pisuna admin](#) [Log out](#)

Search for Atlantic Cod

Search the observations catalog:



Search for: [View All](#)

AND:

AND:

AND:

Date range: to

The PISUNA-net Observation Database is a collaboration between the Greenland Ministry of Fisheries and Hunting, Qaasuitsup Municipality, Greenland Fishers and Hunters Association, [ELOKA](#), the University of Alaska Fairbanks, and NORDECO. This Web site is hosted by the [National Snow and Ice Data Center](#).



Version 1.3.1
Rails version: 4.1.16, Rails environment: staging



PISUNA-net



Local Observations
PISUNA-net

English | Greenlandic

Home Search Observations About Research methods Contacts Add observation Logged in as pisuna admin Log out

Search the observations catalog:



[View All](#)

Search for:

AND:

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Home Search Observations About Research methods Contacts Add observation Logged in as pisuna admin Log out

CURRENT SEARCH
Keyword(s):
Date(s): 2009-05 - 2016-09
Community: All
Coordinator: All
Living Resources: Atlantic Cod
 Refine Search

[New Search](#)

Search Results
 Showing comments 1 - 20 of 72
 20 per page Go to Page:
 Sort by:
 First Page 1 of 4 Last



Date	Coordinator	Community	Additional elements noted (legend)	Transcript	Edit
2016-09	Karl S Marcussen	Attu		Transcript All details	Edit
2016-09	Tom Malgård	Kitsissuarsuit		Transcript All details	Edit
2016-08	Karl S Marcussen	Attu		Transcript All details	Edit
2016-08	Tom Malgård	Kitsissuarsuit		Transcript All details	Edit
2016-07	Karl S Marcussen	Attu		Transcript All details	Edit
2016-07	Tom Malgård	Kitsissuarsuit		Transcript All details	Edit
2016-06	Edvard I. Kristiansen	Kangersuatsiaq		Transcript All details	Edit
2016-06	Karl S Marcussen	Attu		Transcript All details	Edit
2016-05	Edvard I. Kristiansen	Kangersuatsiaq		Transcript All details	Edit
2016-05	Karl S Marcussen	Attu		Transcript All details	Edit
2016-04	Edvard I. Kristiansen	Kangersuatsiaq		Transcript All details	Edit
2016-04	Karl S Marcussen	Attu		Transcript All details	Edit
2016-03	Per Ole Fredriksen	Attu		Transcript All details	Edit
2016-03	Edvard I. Kristiansen	Kangersuatsiaq		Transcript All details	Edit

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2016-08	Edvard I. Kristiansen	Kangersuatsiaq	  	Transcript All details	Edit
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





















Management Proposals

This has resulted in **494 management proposals**:

- Change in fishing and hunting seasons: 146
- Change in quotas: 123
- Other change of rules and bylaws: 125
- Facilitate trade: 35
- Increase monitoring and research: 30
- ‘Current management is fine’: 36



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Discussions with AECO: piloting expedition cruise leader-based monitoring Svalbard



AECO

AECO's guidelines are in many ways the association's backbone and very important tools to achieve the objectives to ensure that cruise tourism in the Arctic is carried out with the utmost consideration of the natural environment, local cultures, as well as challenging safely hazards at sea and on land. But AECO's objectives and strategies stretches further and the association is involved in many activities.



Association of Arctic Expedition Cruise Operators (AECO)



Other important WP4 activities



Capacity exchange - CBM workshops

>250 CBM practitioners, women ≈60%





CBM workshop
Evenk communities
Yakutia

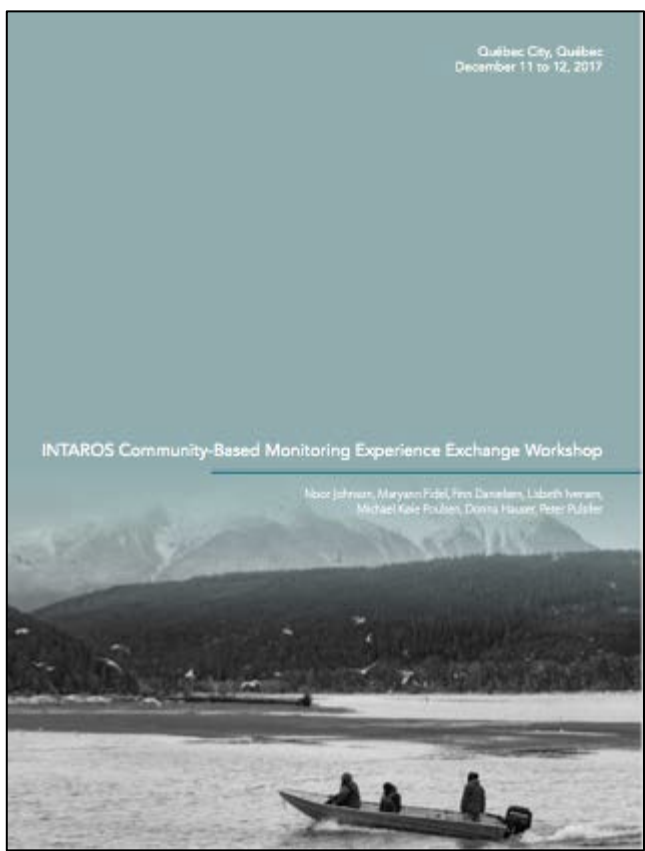




Experience exchange documented from key CBM workshops



<http://www.intaros.eu/>
<http://eloka-arctic.org/content/reports>





7 Sep. 2018: Nominated to the Nordic Council Nordic Council Environment Prize



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[News & media](#) [Our Work](#) [Knowledge & Resources](#) [Organisation](#) [Services](#)

The Attu Natural Resource Council on the west coast of Greenland



Contact information

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elisky@norden.org
+45 2171 7127

Nordic Council Environment Prize

The purpose of the prize is to raise awareness of environmental work in the Nordic Region.

Cookies

Local fishermen document the marine environment and suggest measures for managing it better.

Fishermen in the Attu area on the west coast of Greenland are acting as observers, providing input into research (citizen science and local indigenous knowledge) and suggesting measures to protect nature. The Natural Resource Council is an important example of people assuming responsibility for their local environment and natural



INTAROS



Qujanaq!