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 CONSEIL DE GESTION DES RESSOURCES
 FAUNIQUES DE LA RÉGION MARINE D'EYEOU
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McGill



Community-led polar bear research in the Eeyou Marine Region (James Bay)

Collaborative Co-development Approaches

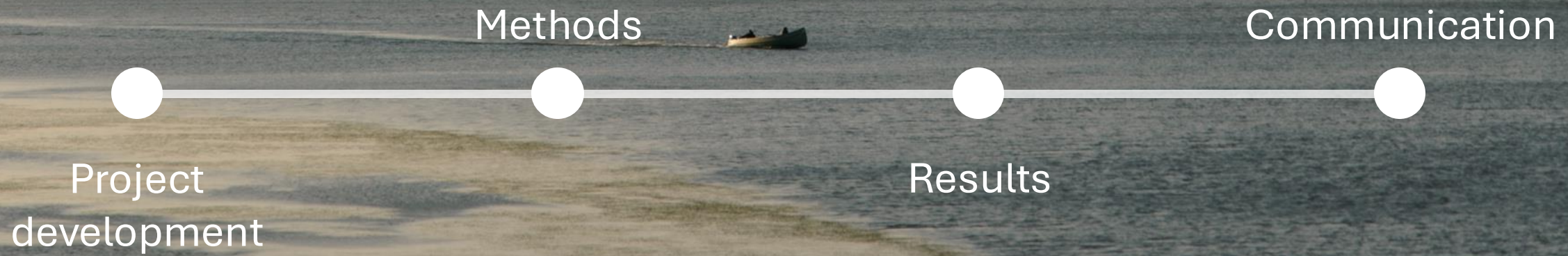
Tasiujaqiuqmiut Sheewetaganapoi Consortium Roundtable

February 25 – 27th 2025

Alexandra Langwieder (McGill University) & Natasha Louttit (Cree Trappers' Association)



Collaborative Process





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McGill

Cree communities of Waskaganish, Eastmain, Wemindji, and Chisasibi



Project
development



Methods



Results



Communication





Natasha Louttit, CTA-EMR Wildlife Liaison Officer



Project
development

Methods

Results

Communication

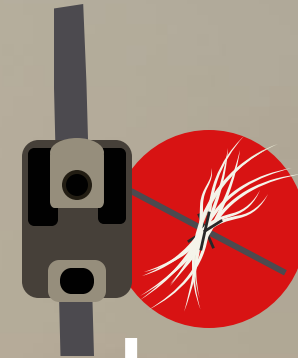
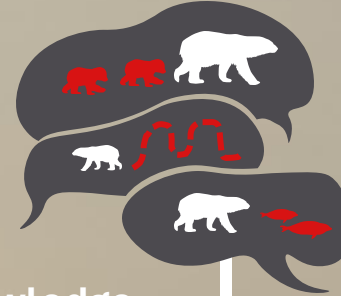


Project objectives:

1. **Co-develop methods for polar bear research** that are led by community members and respect local values
2. Address questions about **polar bear genetics, diet, body condition and distribution** in James Bay at the southern edge of their range

Methods:

Cree Knowledge Interviews



Hair snares and camera traps

Approach:

Open communication with community members & organizations to **determine goals, appropriate methods, and questions of interest**

Polar bear genetics, diet, body condition and distribution



Project development

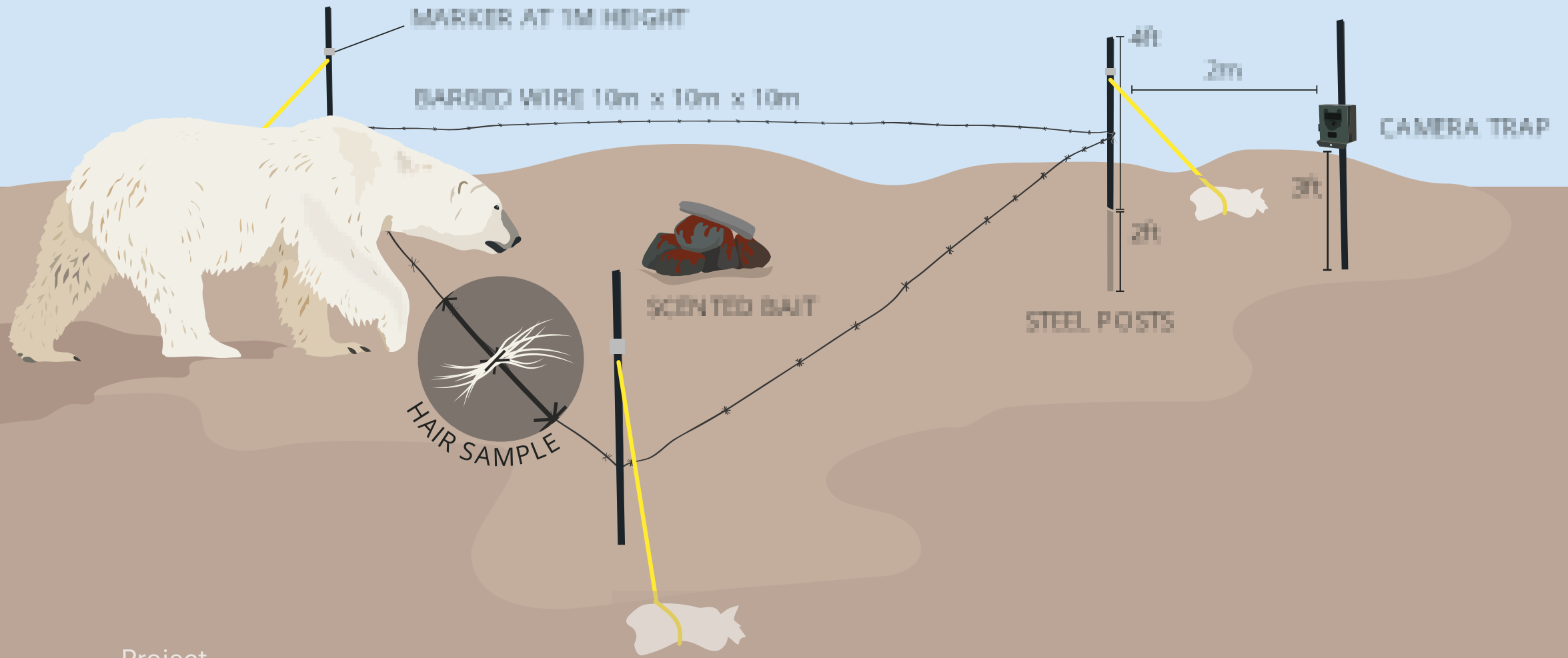
Methods

Results

Communication



Hair snare and camera trap sampling station



Project
development

Methods

Results

Communication



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Hair snare and camera trap sampling station



WEM5

August 1, 2023, 9:59am

August 1, 2023, 4:10pm



Project
development

Methods

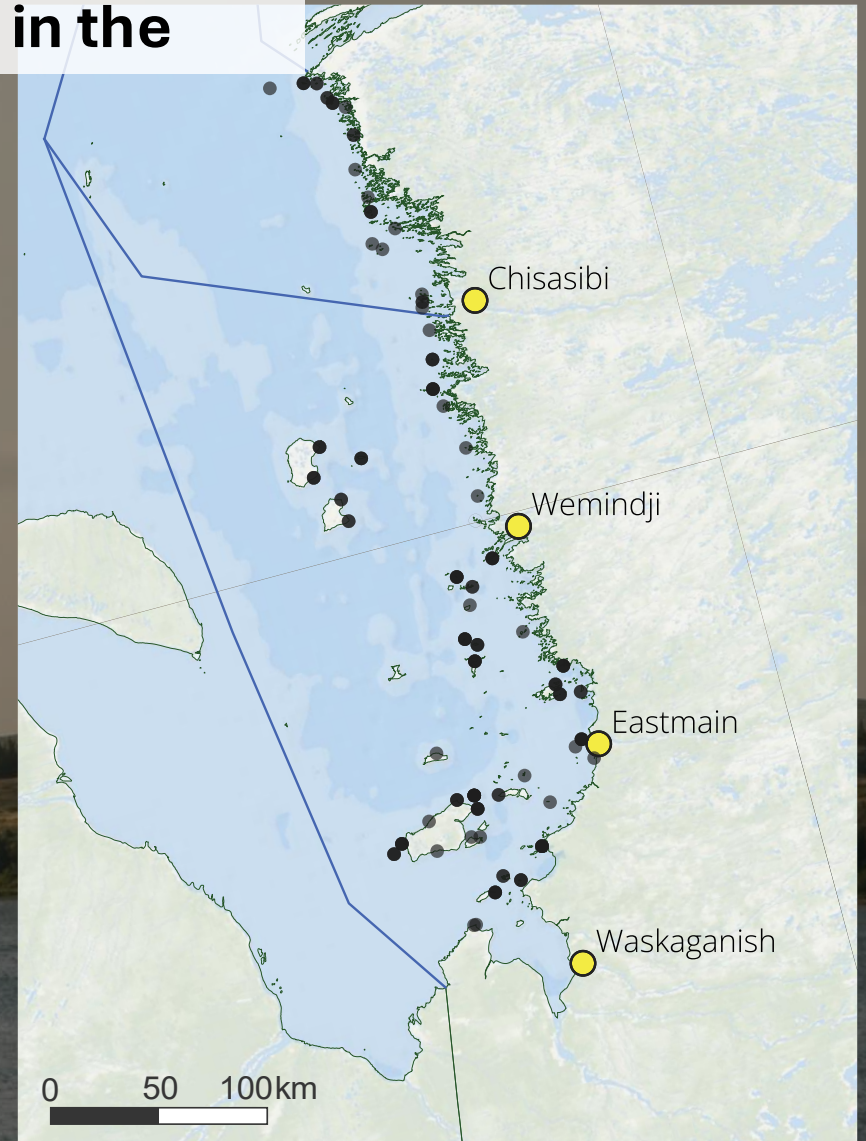
Results

Communication





Fieldwork in the Bay



35 community members involved in fieldwork

12 Knowledge Holder interviews



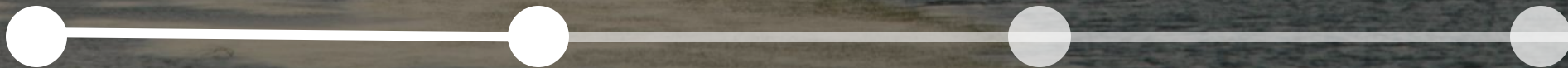
Cree Knowledge interviews

Project development

Methods

Results

Communication



Four years of community-led polar bear monitoring

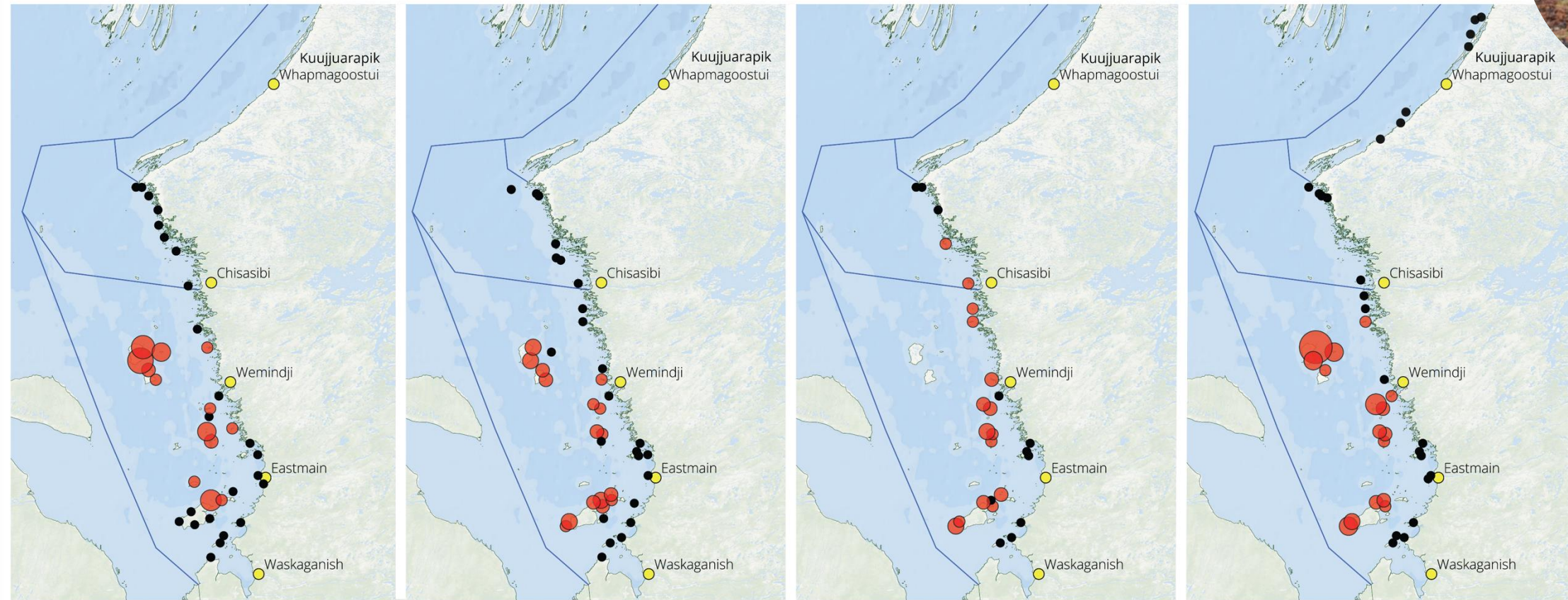


2021

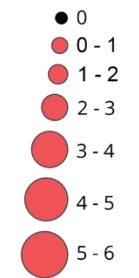
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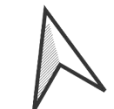
Polar bear detections per week



● Community

— EMR- NMR Boundary

0 50 100 km



Project development

Methods

Results

Communication



Collaboration Outcomes:

- **Community leadership in polar bear research** contributing to self determination
- Long term project with open communication **building relationships and trust between collaborators**
- **Community-to-community knowledge sharing** – eastern James Bay communities sharing this work with Whapmagoostui, Kuujjuarapik, and Mushkegowuk Cree communities
- **Multiple tools and knowledge systems to answer questions**

Project
development

Methods

Results

Communication

FACETS



Community-led non-invasive polar bear monitoring in the Eeyou Marine Region of James Bay, Canada: insights on distribution and body condition during the ice-free season

Alexandra Langwieder^a, Angela Coxon^b, Natasha Louttit^c, Stephanie Varty^b, Felix Boulanger^b, Sanford Diamond^{b,c}, John Lameboy^{b,c}, Anderson Jolly^d, George Natawapineskum^{b,c}, Derek Okimaw^{b,c}, and Murray M. Humphries^a

^aCentre for Indigenous Peoples' Nutrition and Environment, McGill University, Macdonald Campus, 21111 Lakeshore Rd, Ste-Anne-de-Bellevue, QC H9X 3V9, Canada; ^bEeyou Marine Region Wildlife Board, P.O. Box 580, 6 Chief Isaiah Salt Rd, Waskaganish, QC J0M 1R0, Canada; ^cRegional Cree Trappers' Association, 158 Opinaca Street, P.O. Box 250, Eastmain, QC J0M 1W0, Canada; ^dCree Nation of Waskaganish, Eeyou Istchee, Canada

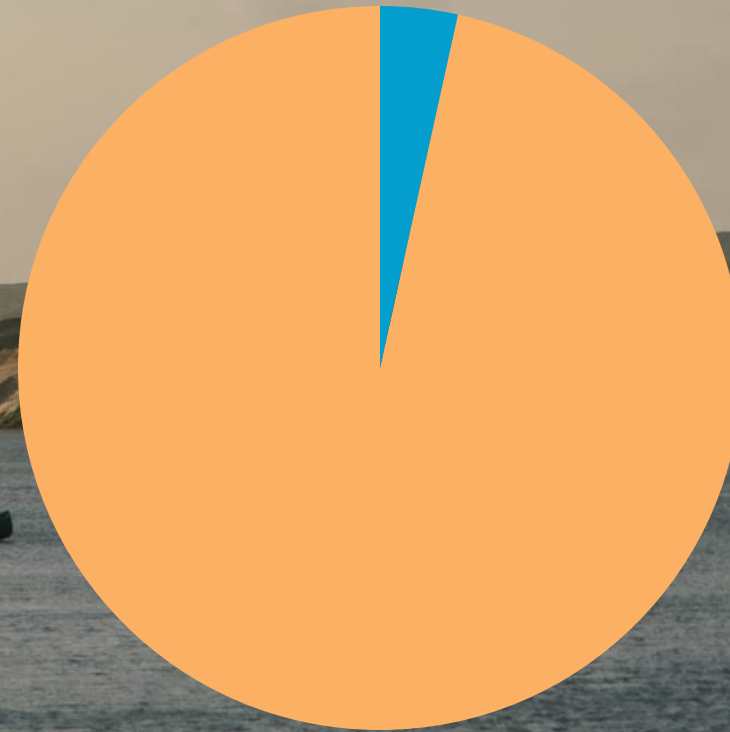
Field costs for 4 communities in the EMR

Year 1: ~ \$80,000
(initial equipment investment)

Following years: ~ \$50,000

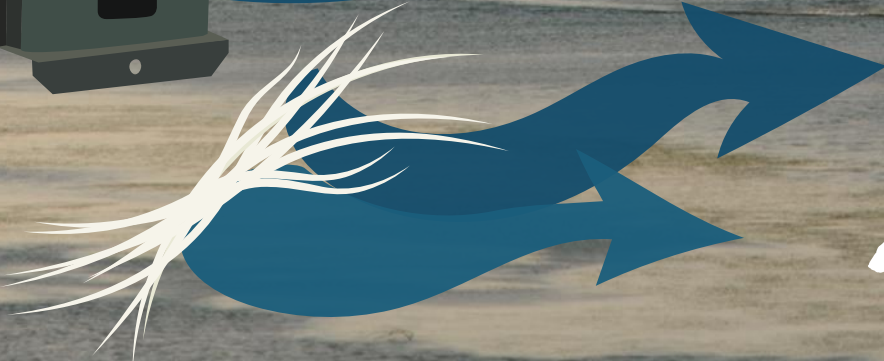
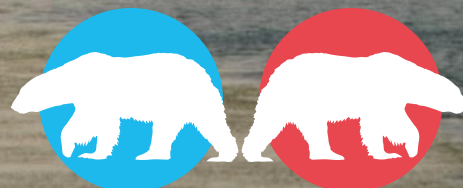
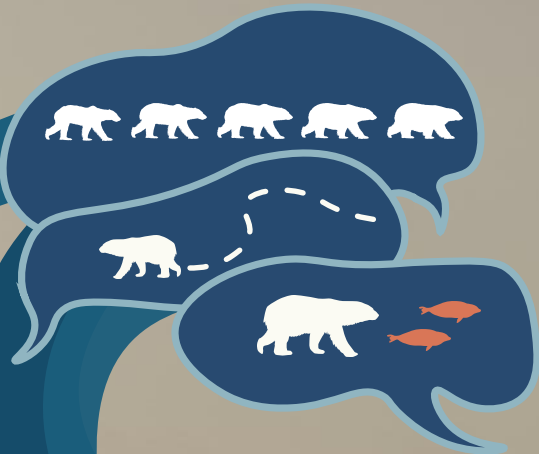
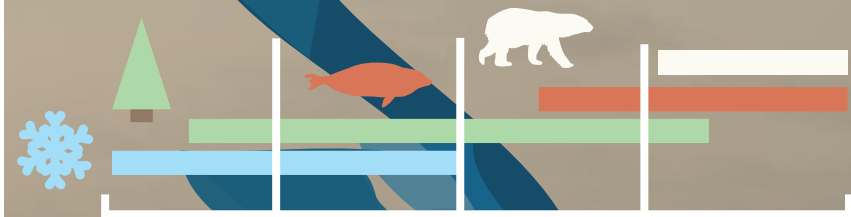
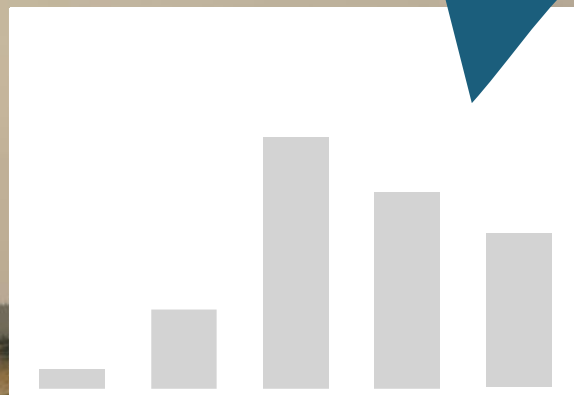
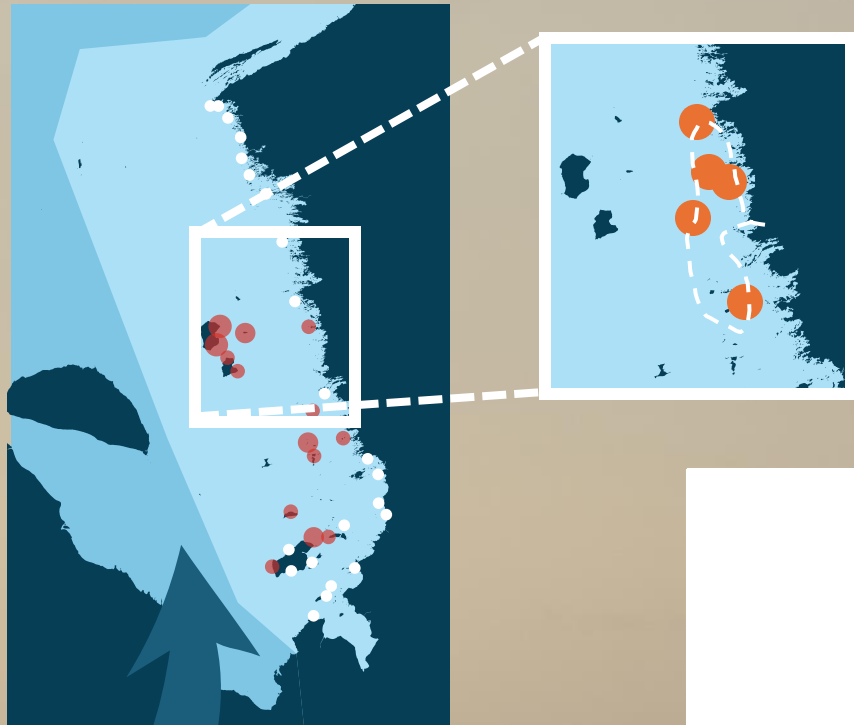
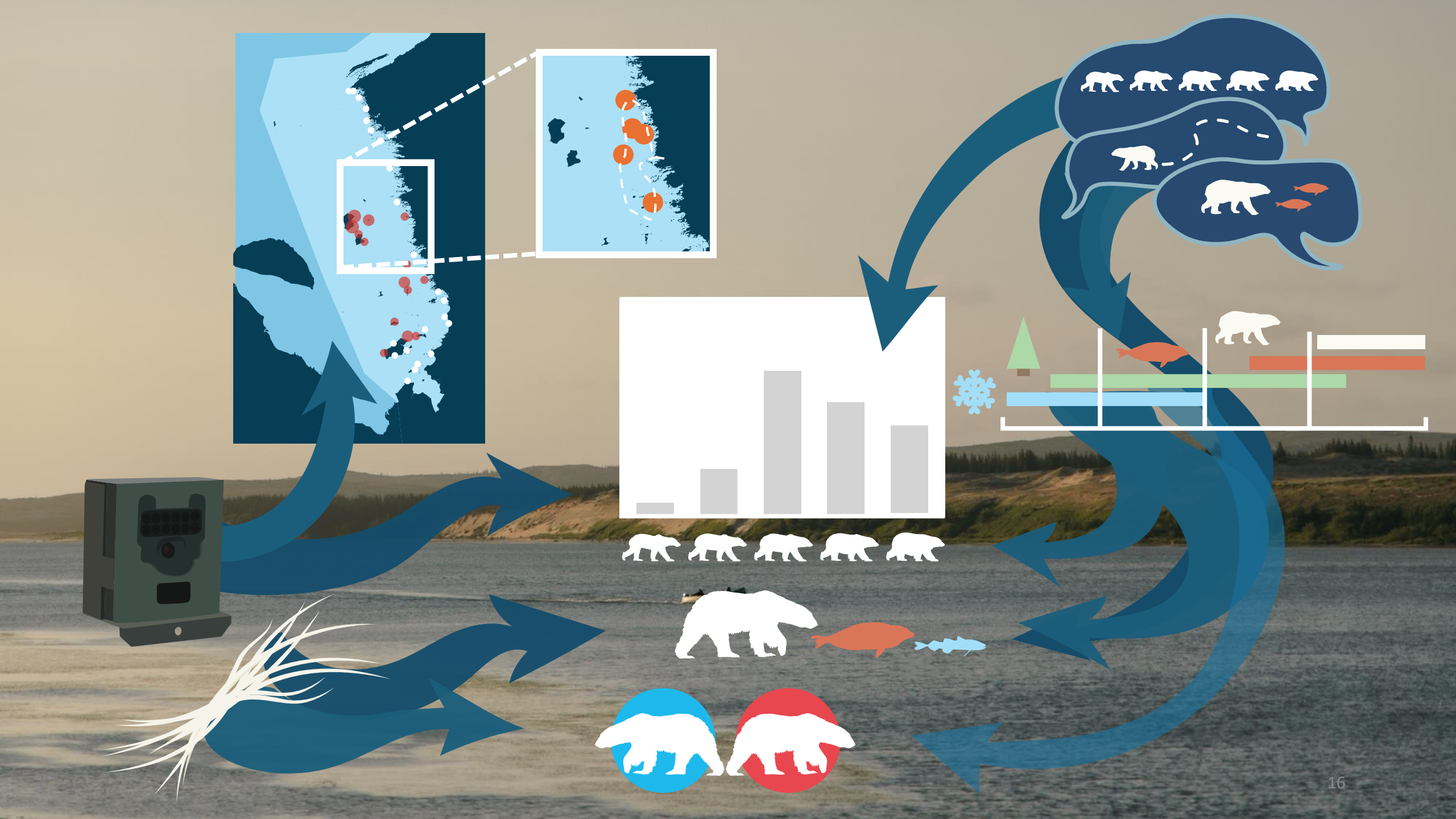
Community economies

Equipment



Bonus materials





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