



MPAs and MPA Networks for Resilience

Canadian Case Studies and Opportunities

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ARCTIC COUNCIL/PAME WORKSHOP

Science and Tools for Developing Arctic MPA Networks:
Understanding MPA Networks as Tools for Resilience in a Changing Arctic

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Copenhagen, Denmark



Purpose

To identify opportunities and approaches for incorporating resiliency in area-based conservation activities in Canada.

- ✓ Resiliency in Canada's MPA Networks
- ✓ New MPA establishment (Canadian Arctic)
- ✓ Canada's Marine Conservation Targets



RESILIENCY IN CANADA'S MPA NETWORKS



Canada's Marine Protected Area Networks

“Resilience” refers to an ecosystem’s ability to recover from stress while maintaining its original functions

With the proper design, a system of marine protected areas (MPAs) can take into account climate change and also increase ecosystem resilience...

What you protect is important:

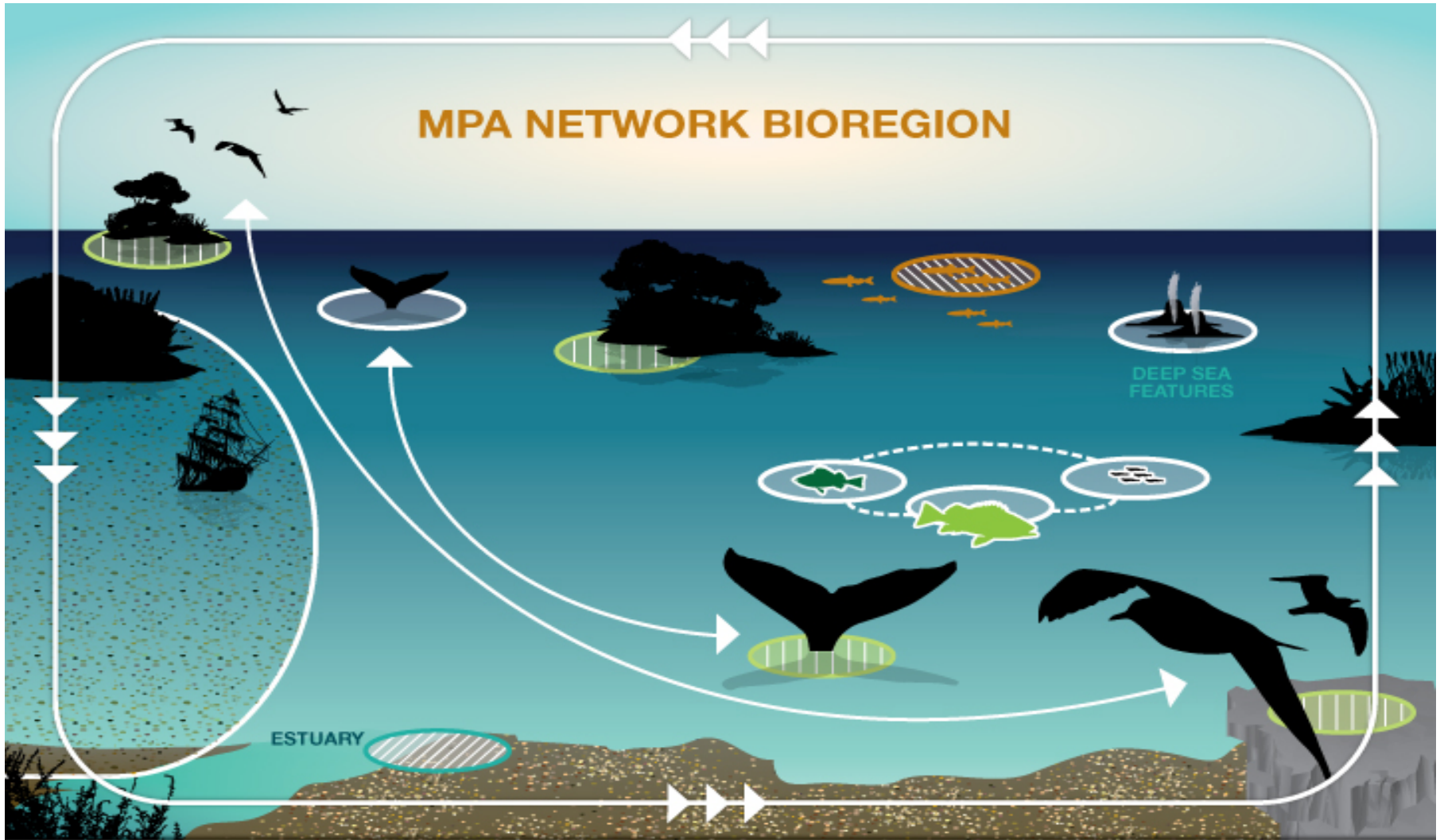
Key species and functions; full range of biodiversity; ecological linkages and connectivity pathways; carbon sinks (CEC 2012)

How you protect is important:

Size; placement; regulations; etc.



MPA NETWORK BIOREGION



National Wildlife Area,
Marine Wildlife Area,
Migratory Bird Sanctuary



Fisheries
Closure



Marine
Protected Area



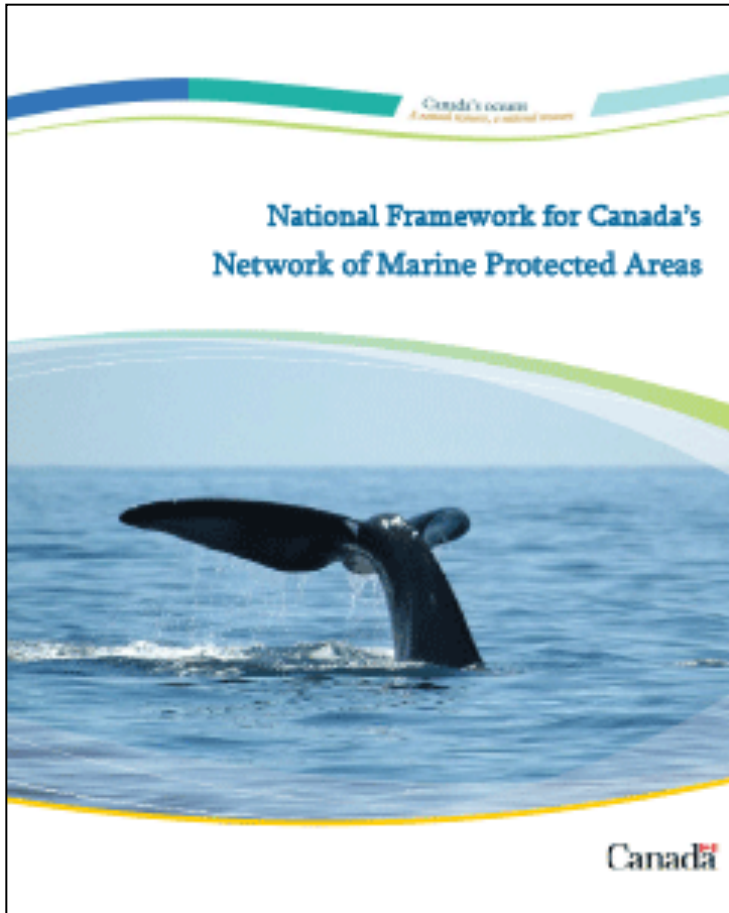
National Marine
Conservation Area



Provincial
Ecological
Reserve



National Framework for Canada's Network of MPAs (2011)



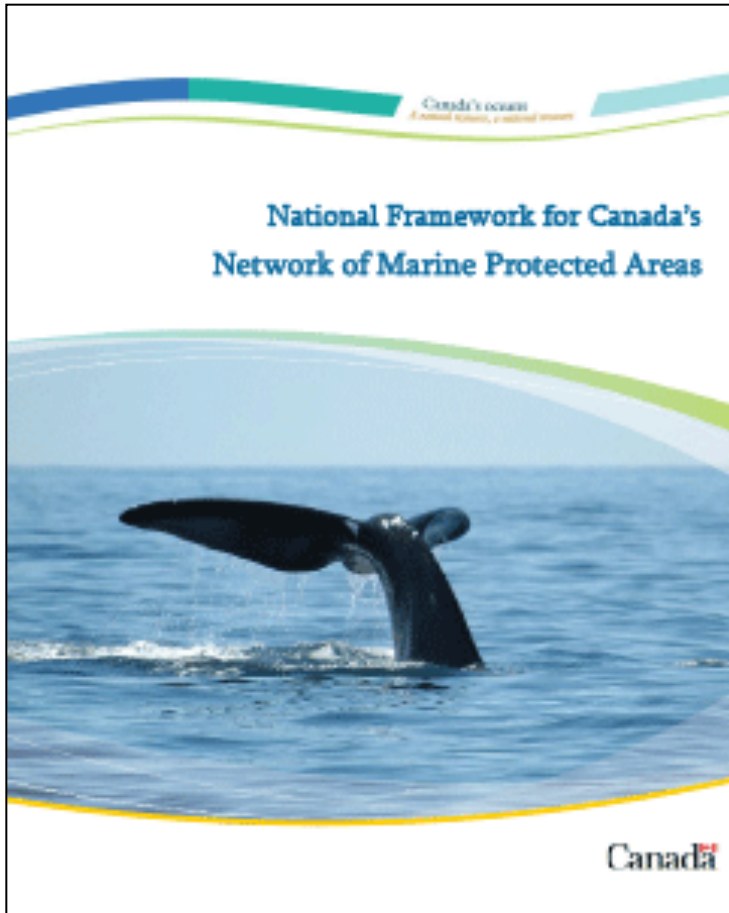
<http://waves-vagues.dfo-mpo.gc.ca/Library/345207.pdf>

The vision for Canada's national network of marine protected areas is:

*An ecologically comprehensive, **resilient**, and representative national network of marine protected areas that protects the biological diversity and health of the marine environment for present and future generations.*



National Framework for Canada's Network of MPAs (2011)



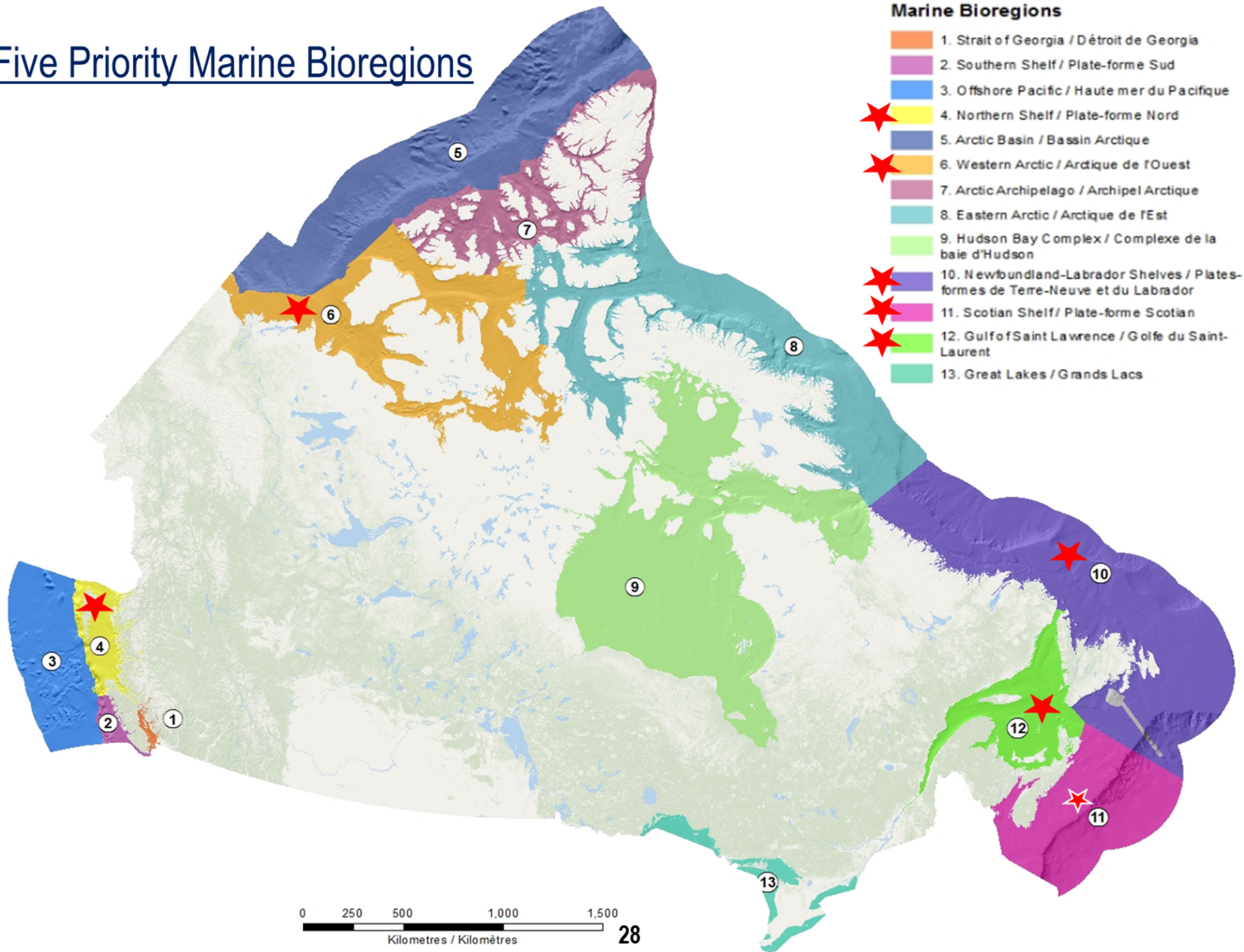
Design Properties:

1. EBSAs
2. Representativity

Additional Design Properties:

3. Connectivity
4. Replication
5. Adequacy/Viability

Five Priority Marine Bioregions





New MPA Establishment (Canadian Arctic)

ANGUNIAQVIA NIQIQYUAM MARINE PROTECTED AREA (MPA)



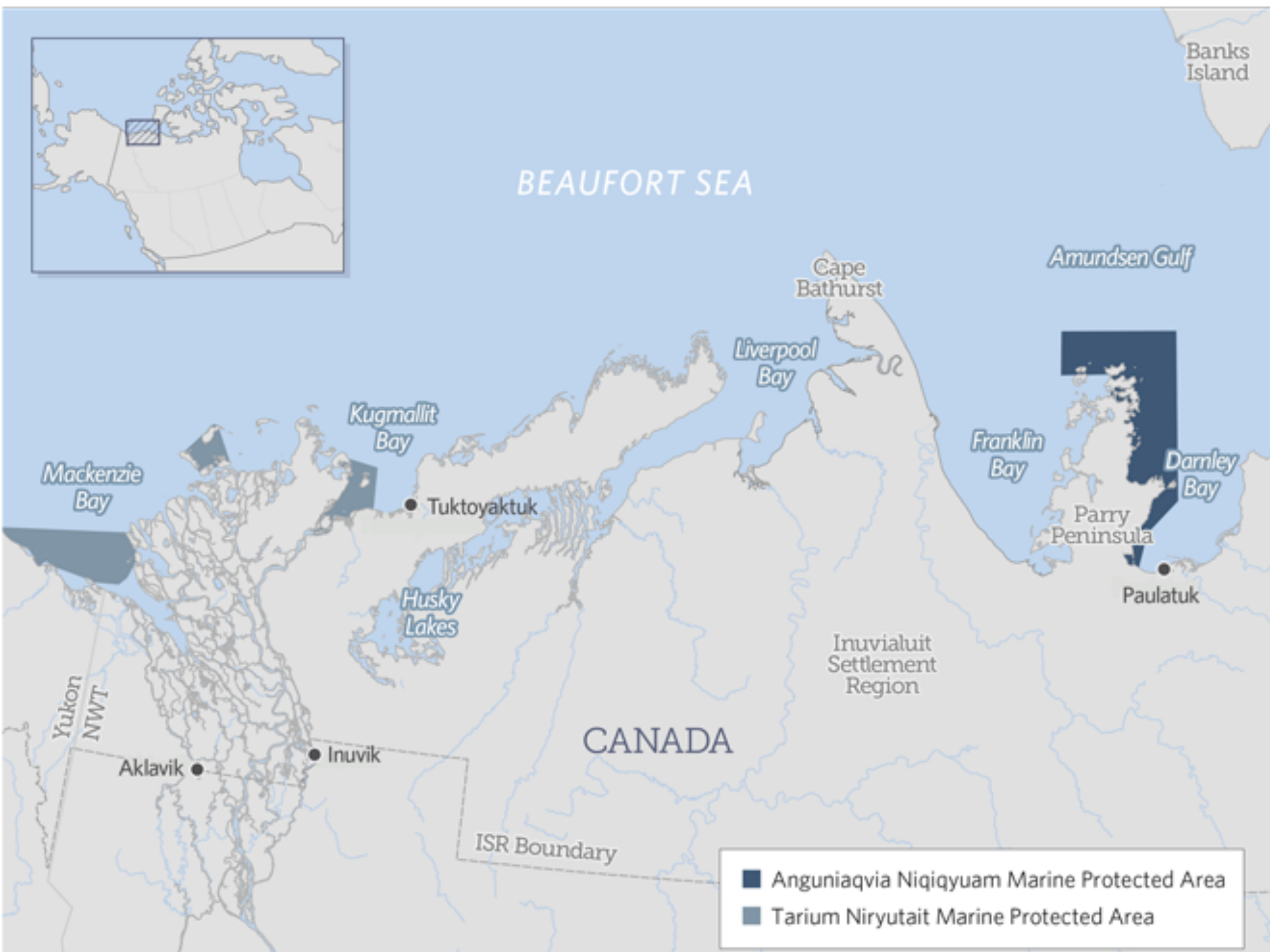
Anguniaqvia niqiqyuam MPA

THE ANGUNIAQVIA NIQIQYUAM MARINE PROTECTED AREA (MPA) WAS OFFICIALLY ANNOUNCED ON NOVEMBER 16, 2016.

- The Anguniaqvia niqiqyuam (Ung-u-niak-via Ni-kig-e-um) is Canada's second Arctic MPA designated under the *Oceans Act*.
- It is located in Darnley Bay, Northwest Territories covering an area of 2,361 km², and borders the east coast of the Parry Peninsula, near the community of Paulatuk, in the Inuvialuit Settlement Region.
- The ANMPA is the first *Oceans Act* MPA to have a conservation objective based solely on Indigenous traditional and local knowledge.



BEAUFORT SEA



Banks Island

Amundsen Gulf

Cape Bathurst

Liverpool Bay

Kugmallit Bay

Mackenzie Bay

Husky Lakes

Franklin Bay

Darnley Bay

Tuktoyaktuk

Parry Peninsula

Paulatuk

Inuvialuit Settlement Region

CANADA

Yukon NWT

Aklavik

Inuvik

ISR Boundary

■ Anguniaqvia Niqiqyuam Marine Protected Area

■ Tarium Niryutait Marine Protected Area



- ✓ beluga whales
- ✓ bowhead whales
- ✓ ringed seals
- ✓ bearded seals
- ✓ fish species



The coastal cliffs at Cape Parry host the only known nesting colony of thick-billed murres in Canada's western Arctic...



....as well as up to 20,000 king and common eiders and long-tailed ducks.



Photo credit : Polar bear, R. Smith, DFO

During winter, the sea ice in the ANMPA provides breeding and feeding habitat for polar bears and seals.



Photo credit: Ringed seal, RJ Stewart, DFO

Areas of open water within the sea ice (polynyas) offer critical feeding areas and promote aggregations of marine mammals and their prey.



Photo Credit:
Oceans North
Canada



AN MPA Regulations

Regulations prohibit “any activity that disturbs, damages, destroys in the ANMPA or removes from the ANMPA any living marine organism or any part of its habitat.”

- This language bans oil and gas exploration, and commercial fishing in these waters.

- ✓ Inuvialuit fishing is maintained in accordance with the Inuvialuit Final Agreement and territorial regulations.

- ✓ Activities essential to the long-term health of nearby Paulatuk, such as subsistence hunting and dredging to allow the passage of resupply vessels, are also allowed.



AN MPA – Towards Resiliency

The new area, together with the existing Tarium Niryutait Marine Protected Area in the nearby Mackenzie River estuary of the Beaufort Sea, will safeguard key summering habitat for about 28 percent, or close to 40,000, of the world's belugas.

- With the creation of Anguniaqvia niqiqyuam, there are now two MPAs in the Canadian Arctic.
- The other, Tarium Niryutait, is a 1,740 square-km (670 square-mile) area in the Beaufort Sea that safeguards the Eastern Beaufort Sea beluga and its habitat.
- Parks Canada has proposed the creation of a third Arctic MPA in Lancaster Sound, between Baffin and Ellesmere islands.



References

ANMPA Regulations published in the *Canada Gazette*, Part II:

- <http://www.gazette.gc.ca/gazette/home-accueil-eng.php>

Anguniaqvia niqiqyuam MPA (DFO)

- <http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/anguniaqvia-niqiqyuam-eng.html>

Oceans North Article:

- <http://www.pewtrusts.org/en/projects/oceans-north-canada/northern-solutions/beaufort-sea/darnley-bay>

BSP Website:

- <http://www.beaufortseapartnership.ca/initiatives/anguniaqvia-niqiqyuam-area-of-interest/>



CANADA'S MARINE CONSERVATION TARGETS



Domestic and International Targets

- In 2010, Canada agreed to aspirational marine conservation targets established under the Convention on Biological Diversity (CBD) (Aichi targets) and in 2015 under the 2030 agenda for Sustainable Development (SDGs):
 - Target 11 calls on member states to conserve 10% of coastal and marine areas through effectively managed networks of protected areas and “other effective area-based conservation measures” (other measures) by 2020.
- Canada’s Biodiversity Target 1, agreed to by provinces and territories, includes a similar aspirational target.
- Guidance on what constitutes an “other effective area-based conservation measures” is currently under development both domestically and internationally.



2015 Minister's Mandate Letter

- Work with the Minister of Environment and Climate Change to increase the proportion of Canada's marine and coastal areas that are protected to 5% percent by 2017 and to 10% by 2020.
- Work with the provinces, territories, Indigenous Peoples, and other stakeholders to better co-manage our three oceans.
- Use scientific evidence and the precautionary principle, and take into account climate change, when making decisions affecting fish stocks and ecosystem management.



Next Steps (5% by 2017)

Even with the newly created Anguniaqvia niqiqyuam MPA only about 1% of Canadian waters have been protected to date.

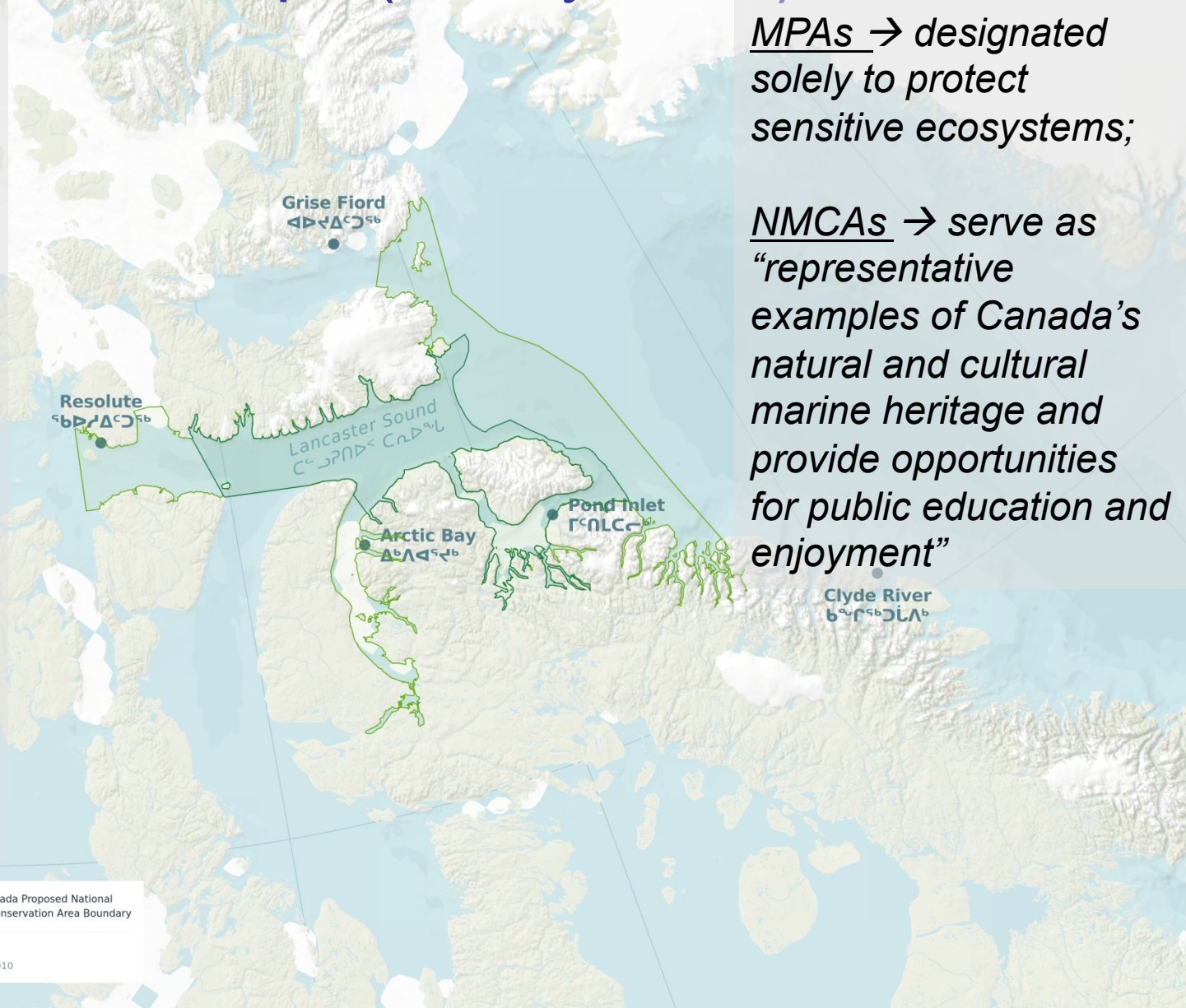
Next Steps (5% by 2017)

- Finishing designation of three more MPAs already in the works before the end of 2017 (adding about another 0.4 %):
 - Hecate Strait/Queen Charlotte Sound Glass Sponge Reefs (Pacific)
 - St. Anns Bank (Atlantic – Nova Scotia)
 - Laurentian Channel (Atlantic – Newfoundland)



Next Steps (5% by 2017)

Finish creation of a massive National Marine Conservation Area (NMCA) around Lancaster Sound, Nunavut – protecting roughly another 1.75% of Canada’s waters (if a proposed expansion is accepted)



MPAs → designated solely to protect sensitive ecosystems;

NMCAs → serve as “representative examples of Canada’s natural and cultural marine heritage and provide opportunities for public education and enjoyment”

Qikiqtani Inuit Association Proposed National Marine Conservation Area Boundary

Parks Canada Proposed National Marine Conservation Area Boundary

References
Qikiqtani Inuit Association, 2014

References
Parks Canada, 2010



Next Steps (5% by 2017)

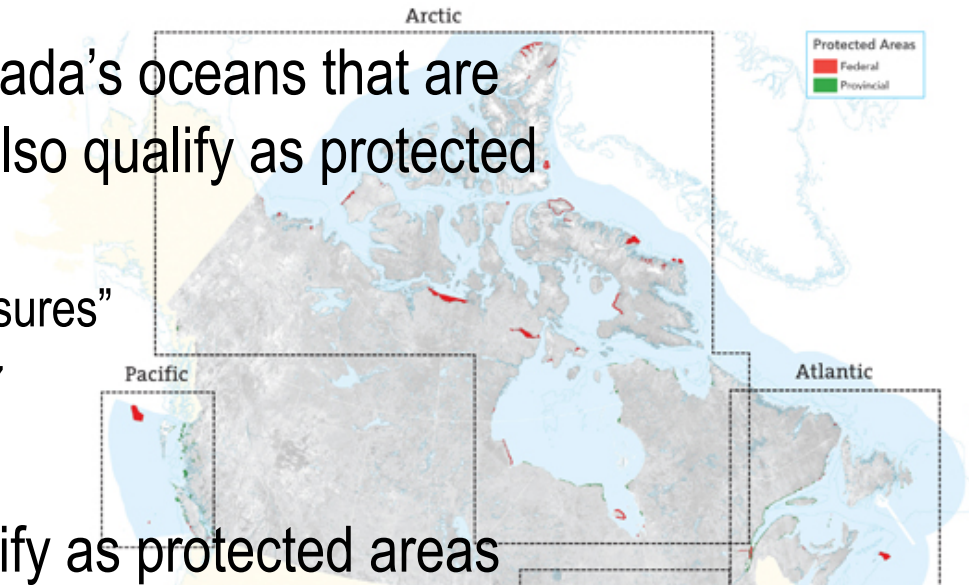
The addition of those new MPAs and the Lancaster Sound NMCA would leave a little less than 2% of Canada's oceans—about 105,000 square kilometres—for the government to protect in order to meet its 2017 goal...

✓ Up to another one per cent of Canada's oceans that are currently under a fishing ban could also qualify as protected marine territory.

- Areas meeting “other effective measures” to be confirmed before the end of 2017

✓ New fishing closures will also qualify as protected areas

- E.g., managing sensitive benthic areas; strengthening existing other measures





Other Effective Area-Based Conservation Measures (OEABCMs) (OMs)

- OEABCMs can make an important contribution to marine biodiversity conservation.
- Identifying existing and establishing new OEABCMs is an important part of the Government of Canada's plan to meeting its domestic and international marine conservation targets.
 - If measures meet the criteria presented in the Operational Guidance they may contribute to meeting Canada's marine conservation targets.

For more information, please visit [Operational Guidance for Identifying "Other Effect Area-Based Conservation Methods" in Canada's Marine Environment](#) (and supporting Science advice from the Canadian Science Advisory Secretariat)



OEABCMs - Next Steps

- At SBSTTA 20 (2016), CBD Parties expressed an interest in playing a greater role in determining criteria for reporting on other measures. At the subsequent COP, Parties requested the Executive Secretary to develop voluntary guidance on protected areas and OEABCMs.
- At the High-Level Segment of the CBD-COP December 2016, Canada's Minister Leblanc formally offered to host a technical workshop on characterizing OEABCMs in the marine environment.
- The proposed technical workshop on other measures can help to inform the guidance requested by parties – and was very positively received. The workshop will likely be held late 2017.
- Parties, other Governments and relevant organizations will be invited to provide scientific information in support of the workshop's objectives and to nominate experts who can participate in this workshop.



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Thank you!

Questions??



Canada 