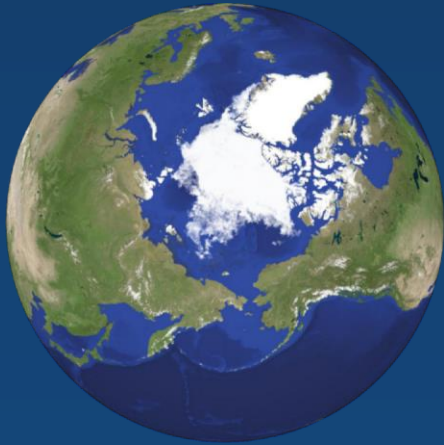


Marine Protected Areas as part of an Ecosystem Approach to Management



Lauren Wenzel, NOAA Office of National Marine Sanctuaries

Laura Strickler, NOAA Office of International Affairs

Cathy Coon, Bureau of Ocean Energy Management

Integrating MPAs and Place-Based Management into EAM

- Background on PAME's MPA activities
- Focus on how PAME MPA Expert Group is working to integrate knowledge
- Examples of place-based conservation and EAM

Elements of an Ecosystem Approach

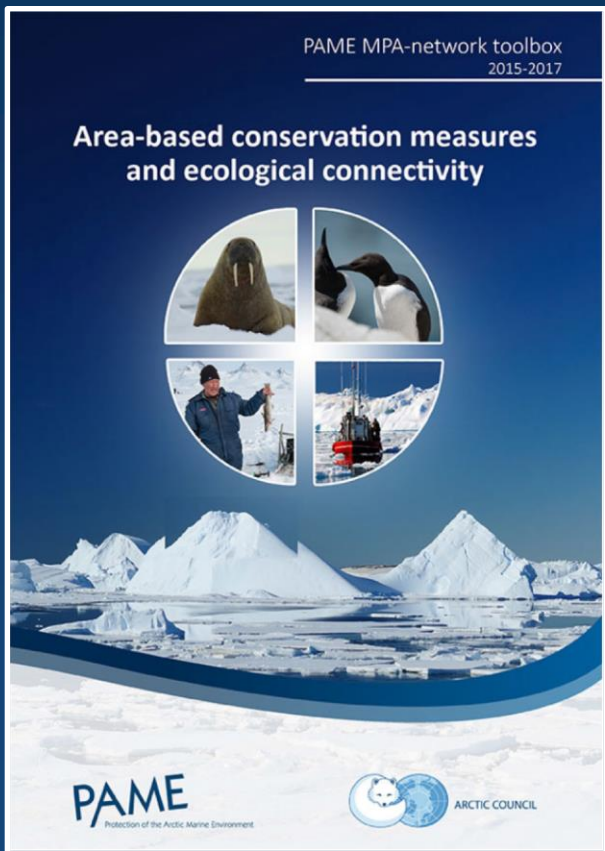
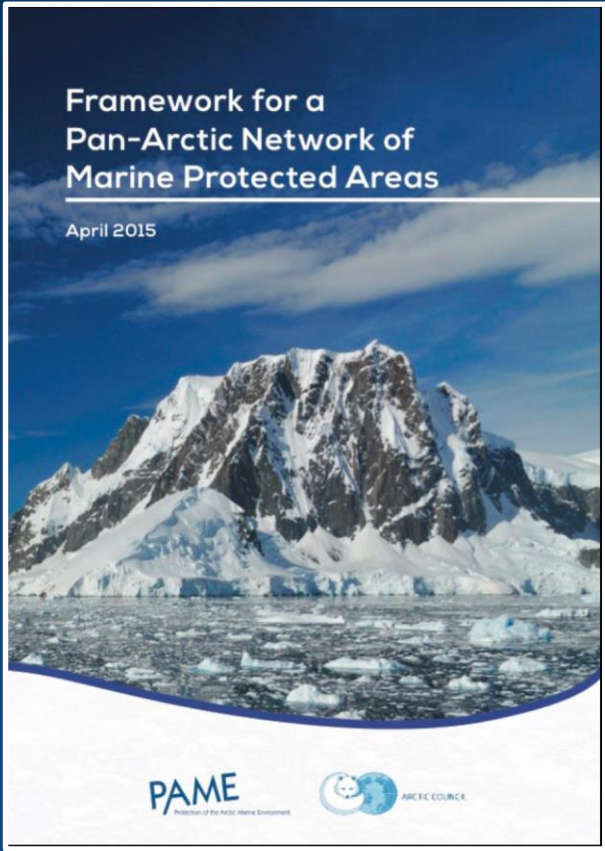
- Actions must be based on clear objectives
- Development activities coordinated in a way that minimizes their impact on the environment
- Integrates thinking across environmental, socioeconomic, political and sectoral realms
- Focused on realistic, practical steps to reduce environmental damage, protect biodiversity and promote the health and prosperity of local communities
- Requires research, monitoring and reporting
- Employs a coordinated, regional approach





Marine Protected Areas

- One of PAME's six expert groups
- Collaboration with CAFF
- Dedicated MPA webpage (<https://pame.is/index.php/projects/marine-protected-areas>)



Marine Protected Areas

Arctic Protected Areas: Indicator Report

- Inventory mapping of existing Arctic MPAs (national input)
- Status and trends of marine and terrestrial protected areas in the circumpolar Arctic.



ARCTIC PROTECTED AREAS
INDICATOR REPORT

2017



Arctic Protected Areas: Indicator Report

PAME
Protection of the Arctic Marine Environment

CAFF
Conservation of Arctic Flora and Fauna



- 11.4% Total protected
- 4.7% Marine areas
- 20.2% Terrestrial areas

Cooperation with UNEP

- compare with ProtectedPlanet.com data
- 4.7% increased to 5.9%

Protected Areas: Status and Trends

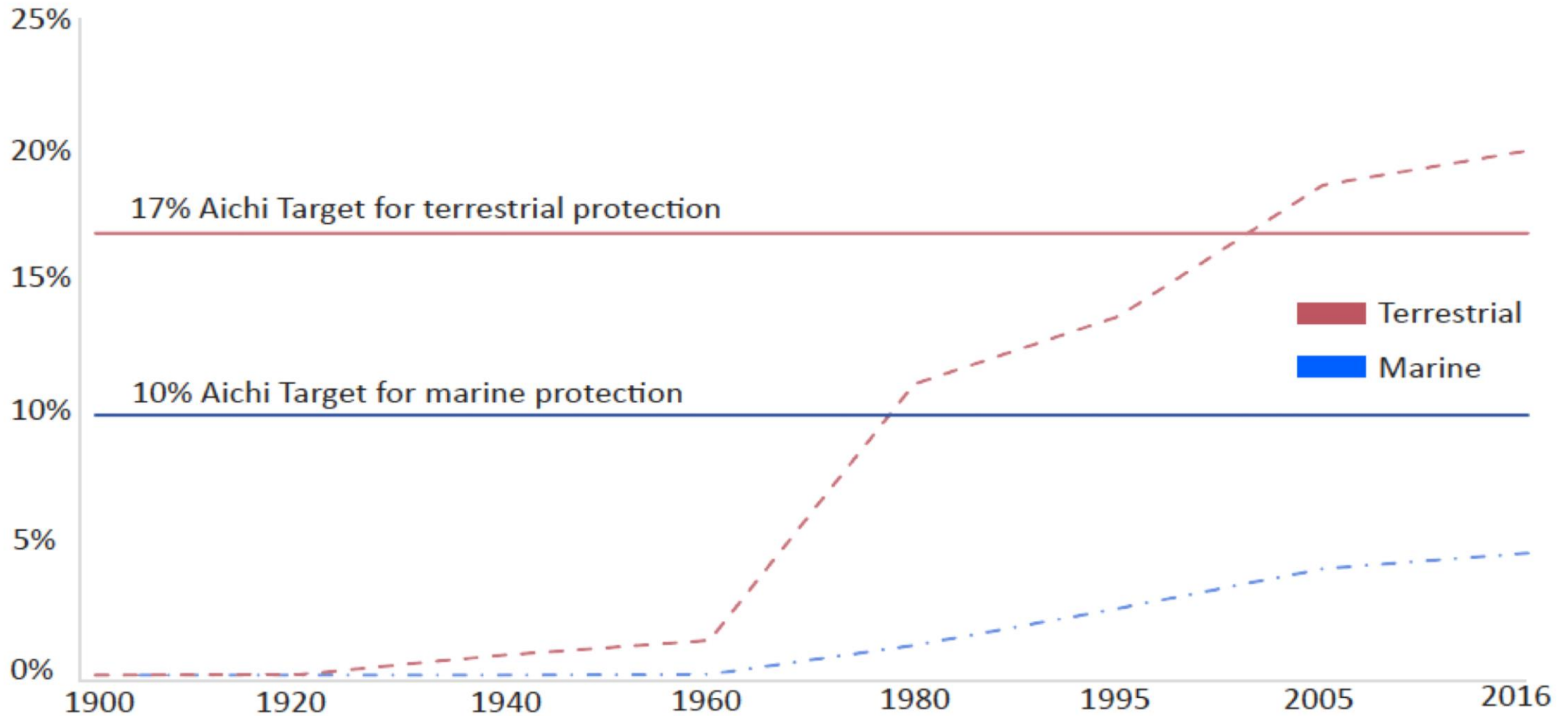


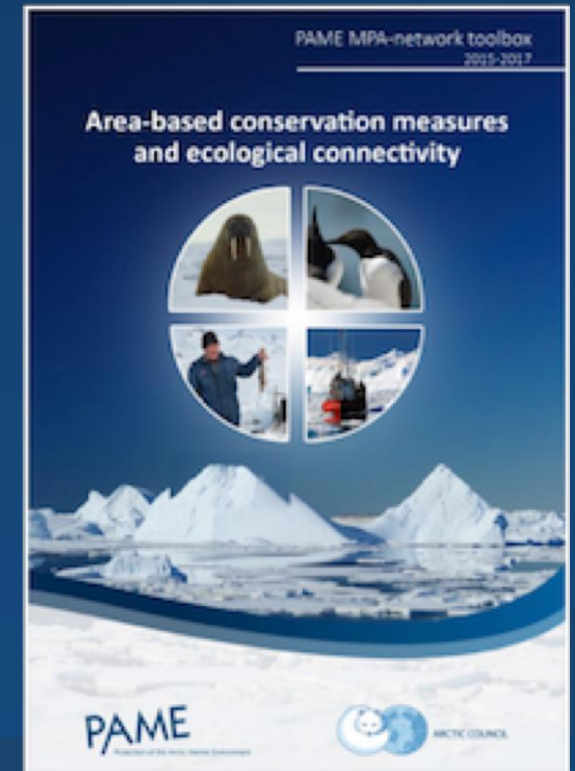
Figure 2: Trends in terrestrial and marine protected area coverage within the CAFF boundary, 1900-2016.

MPA Network Toolbox

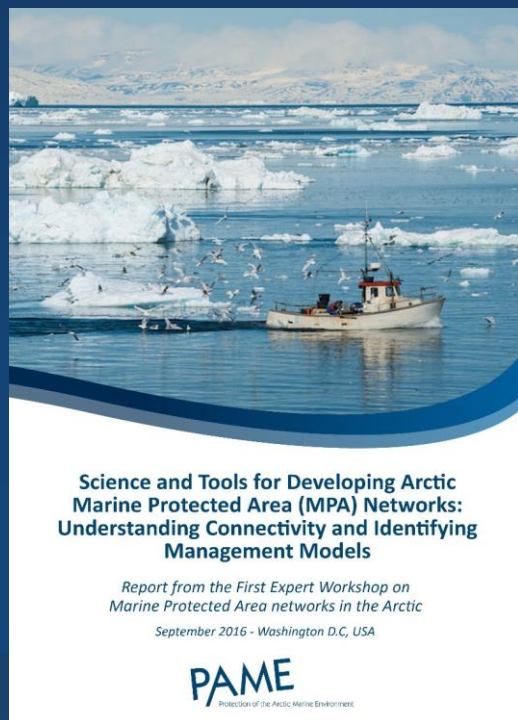
- **Objective:**

- To inform decision-makers, practitioners, Indigenous peoples, and stakeholders involved in developing MPA networks and ecosystem-based management in the marine Arctic (MPAs and “other measures”).
- Focuses on “other measures” as additional tools for designing Arctic MPA networks.
- Summarizes key findings and next steps, as well as case studies.

The focus is not on definitions or targets, but on the utility of area-based measures – both MPAs and “other measures” for achieving desired network conservation objectives and outcomes.



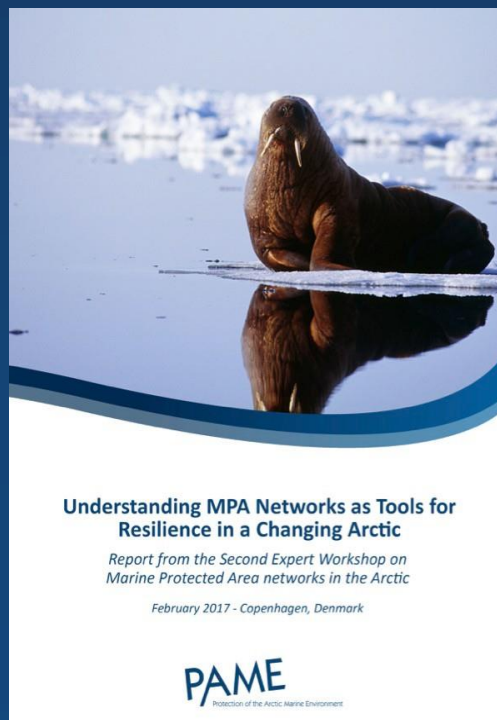
MPA Workshops



Science and Tools for Developing Arctic Marine Protected Area (MPA) Networks: Understanding Connectivity and Identifying Management Models

Report from the First Expert Workshop on Marine Protected Area networks in the Arctic
September 2016 - Washington D.C, USA

PAME
Protection of the Arctic Marine Environment



Understanding MPA Networks as Tools for Resilience in a Changing Arctic

Report from the Second Expert Workshop on Marine Protected Area networks in the Arctic
February 2017 - Copenhagen, Denmark

PAME
Protection of the Arctic Marine Environment



Scientific considerations of how Arctic Marine Protected Area (MPA) networks may reduce negative effects of climate change and ocean acidification

Report from the Third Expert Workshop on Marine Protected Area networks in the Arctic, organised by Sweden and Finland under the auspices of the PAME working group of the Arctic Council in Helsinki, Finland, 21-22 September 2017 Report 2017/38

PAME
Protection of the Arctic Marine Environment

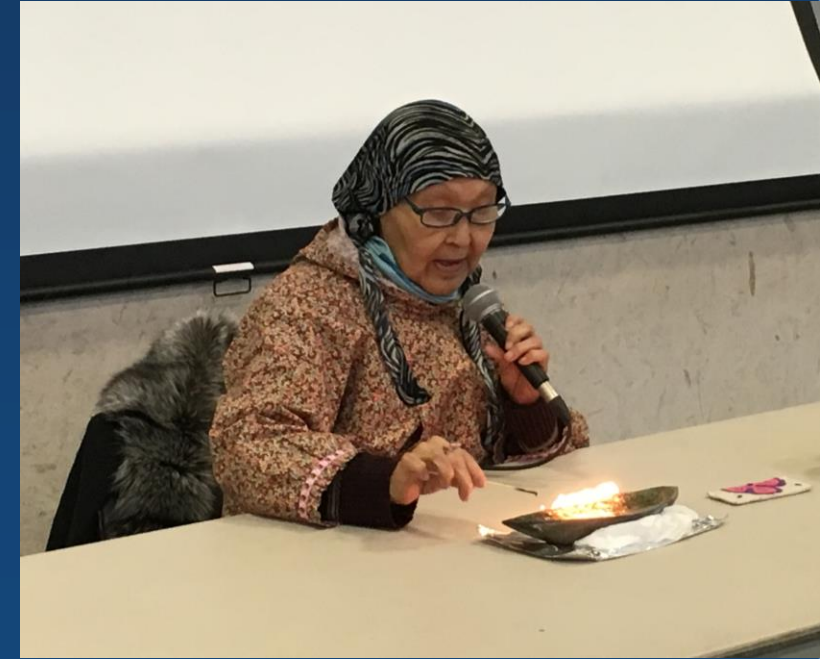


Exploring ways to support Indigenous/Local involvement in, and Indigenous/Local led, marine protection in the circumpolar Arctic Ocean

A cross-disciplinary approach among scientists, managers, indigenous experts to inform and foster MPA networks

Indigenous Communities and MPAs Workshop

- Sponsored by PAME and Government of Canada in March 2019
- Discussion focused on MPAs, but relevant to other Arctic Council efforts
- Strong theme of communication and inclusion of indigenous communities in policy decisions
- Need for greater indigenous involvement in PAME's MPA efforts
- Concept of "Code of Conduct for Policymakers" on how to interact with local communities
- Need for relationship building and the need for real and meaningful consultation and engagement with local communities



Fact Sheets on MPAs Under Change

- Synthesize scientific information on climate impacts to MPAs in the Arctic, and the role of MPA networks in building resilience
- Synthesize information on impacts of change on indigenous people

MCCIP Marine Climate Change
Impacts Partnership

Marine climate change impacts

10 years' experience of
science to policy reporting

This report card summarises how our understanding of marine climate change impacts has developed since the first MCCIP report card and lessons for science to policy reporting.

**"Concern about the state of our seas
has caused them to be studied more
intensively – and extensively – than ever
before. Here is a summary of the findings.
They have never been more important."**
Sir David Attenborough

Key headlines
Short term variations in key parameters, such as temperature, over the last decade highlight the need to communicate observed change in the context of long-term trends.
There is evidence of some marine species responding to climate change but not necessarily in the ways anticipated 10 years ago.
Some areas, such as human health, remain poorly understood but there are early signs that climate change will have an impact.
Marine climate change impacts on society have been identified and understood for some topics, such as fisheries and coastal flooding, is more advanced than for others.
In general, marine climate change impacts have been better studied than ever before and ensuring integrity and independence when translating evidence is vital to inform considered decision making.

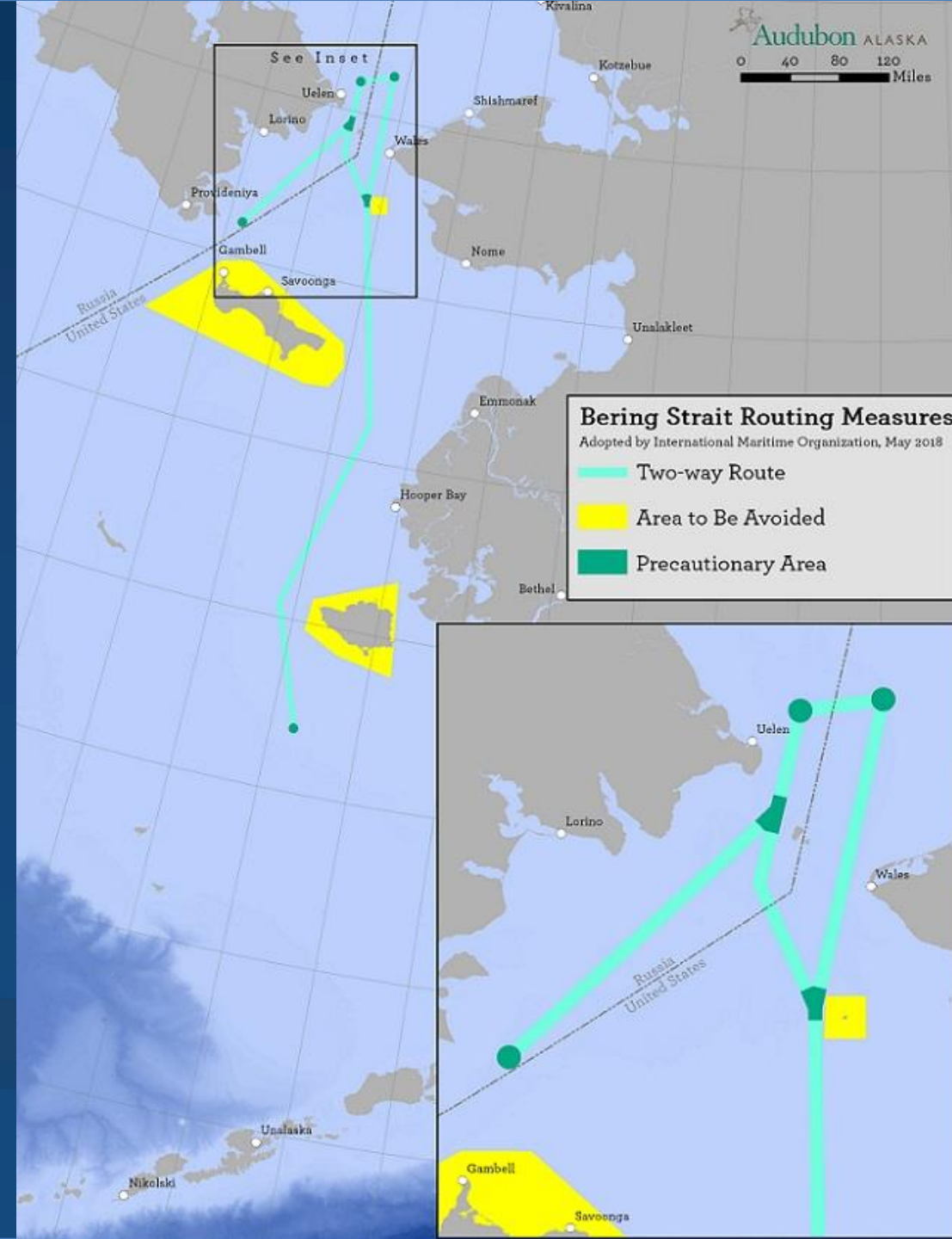
2017

www.mccip.org.uk/arc10

Example 1: Place-based conservation and EAM

IMO Areas to be Avoided – Bering Sea

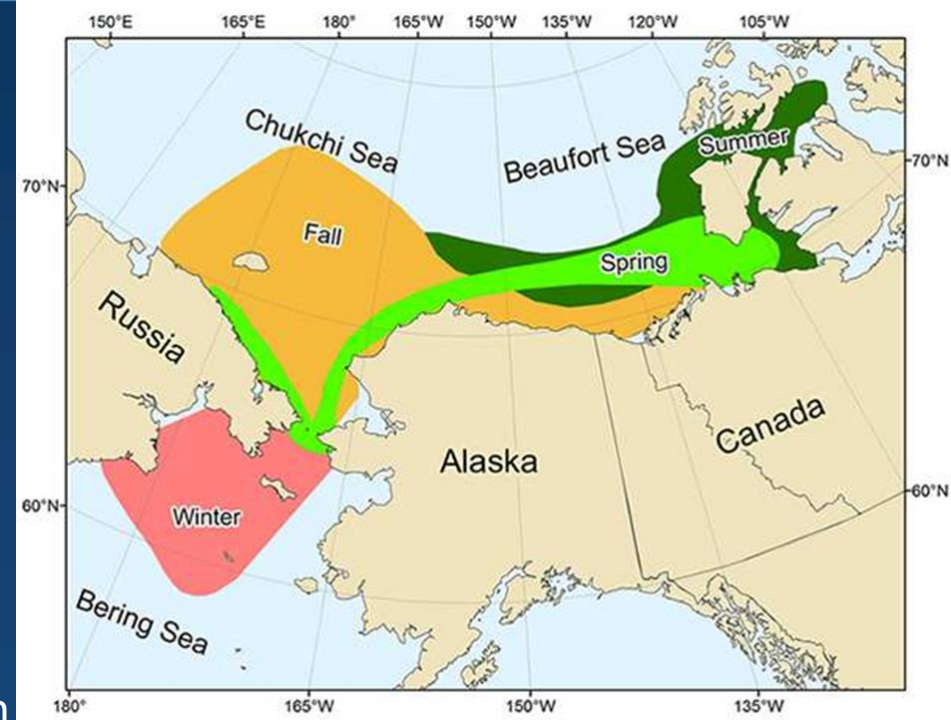
- Expecting 100-500% increase in vessel traffic by 2025
- Measures enhance shipping safety
- ATBAs around Nunivak Island, St. Lawrence Island, and King Island
 - Protect sensitive areas and wildlife
 - Protect traditional hunting areas
- US requested – based on US Coast Guard’s Port Access Route Study, with extensive consultation from local communities
- Voluntary, with high rate of compliance



Example 2: Place-based conservation and EAM Conflict Avoidance Areas in the Beaufort Sea

- Goal is to balance development with subsistence
- Provides guidelines for energy industry to avoid and mitigate impacts of oil and gas industry on subsistence whaling (e.g. avoiding aircraft and vessels in whaling areas)
- Relies on local ecological knowledge and western science

Bowhead migration



Whaling villages



Photo: Wayne Lynch

Example 3: Examples of Recent Country-based Progress on MPAs

- **Canada:** established Tallurutiup Imanga - Lancaster Sound National Marine Conservation Area with the Nunavut Government and the Qikiqtani Inuit Association in 2017, the country's largest MPA at 109,000 mi².
- **Russia:** working to expand MPA network (with WWF-Russia)
- **US:** Established community-based nomination process, resulting in first proposal from Alaska (St. George, Pribilofs)

Next Steps

Projects for PAME 2019-2021 Work Plan

- MPA Toolbox (expansion/refinement) based on recent workshops
- Finalizing workshop report from Indigenous People and MPAs
- Connectivity study: **Modelling the biological connectivity and optimum design of Marine Protected Areas within the Arctic**
- Further work between CAFF and PAME to update the Indicator Report
- Production of communication materials, including factsheets



Thank You

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Homepage: www.pame.is

Facebook.com/pamesecretariat

Twitter: @PameSecretariat



MPA Workshops

1st MPA Workshop: Science and Tools for Developing Arctic Marine Protected Area (MPA) Networks: Understanding Connectivity and Identifying Management Models (USA, Sep 2016).

2nd MPA Workshop: Understanding MPA Networks as Tools for Resilience in a Changing Arctic (Denmark, Feb 2017).

3rd MPA Workshop: Scientific considerations of how Arctic Marine Protected Area (MPA) networks may reduce negative effects of climate change and ocean acidification (Finland, Sep 2017).

4th MPA Workshop: Exploring best practices for supporting Indigenous involvement in, and Indigenous led, marine protection in the circumpolar Arctic (Canada, March 2019).