

# **Joint Ecosystem Approach Expert Group (EA-EG) EA Framework**

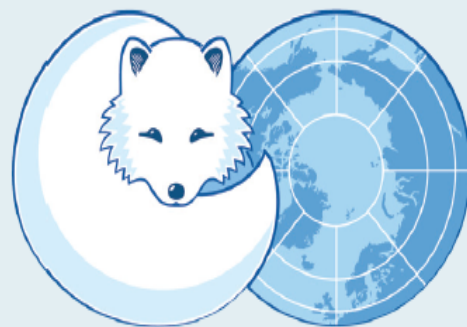
**Libby Logerwell, incoming Co-Chair USA  
Hein Rune Skjoldal, Norway, Co-chair**

**6<sup>th</sup> EA Workshop  
Seattle, WA  
January 9, 2018**

# Purpose of this presentation

- Present the Arctic Council EA Framework
- Identify areas of common interest in implementing EA across the working groups served by the Joint EA EG; PAME, CAFF, AMAP, SDWG

# Ecosystem-Based Management in the Arctic



ARCTIC COUNCIL

Report submitted to Senior Arctic Officials  
by the Expert Group on Ecosystem-Based Management  
May 2013

# Six elements of the Ecosystem Approach (JOINT EA-EG)

1. Identify the ecosystem
2. Describe the ecosystem
3. Set ecological objectives
4. Assess the ecosystem IEA
5. Value the ecosystem
6. Manage human activities

**Roles for ARCTIC  
COUNCIL**

**Arctic States**

# Role of Arctic Council WGs in EBM

## Implementation: Six Steps

Implementing the ecosystem approach to management In the Arctic – PAME

EA EG Brochure

|                       |          | AMAP   | CAFF   | PAME   | SDWG   |
|-----------------------|----------|--------|--------|--------|--------|
| <b>Identify</b>       | <b>1</b> | Yellow | Green  | Green  | Red    |
| <b>Describe</b>       | <b>2</b> | Green  | Green  | Yellow | Yellow |
| <b>Set objectives</b> | <b>3</b> | Yellow | Yellow | Green  | Green  |
| <b>Assess (IEA)</b>   | <b>4</b> | Green  | Green  | Yellow | Yellow |
| <b>Value</b>          | <b>5</b> | Red    | Red    | Red    | Green  |
| <b>Manage</b>         | <b>6</b> | Grey   | Grey   | Grey   | Grey   |

# Status of Implementing EA in the AC

**Identify the ecosystem** LMEs adopted by AC in Kiruna 2013.

**Describe the ecosystem** CAFF and AMAP Projects (ABA and SWIPA). How to coordinate biological & physical observations?

**Set ecological objectives** Definitions vary among Arctic States

**Assess the ecosystem IEA** Common understanding of IEA remains to be developed (ICES has expertise)

**Value the ecosystem** Who does valuation, SDWG?

**Manage human activities** Arctic states' responsibility

# Joint EA-EG Work Plan 2017-2019

- a) Develop guidelines addressing the six elements of EA implementation in Arctic (marine) ecosystems
- b) 6th EA workshop on Integrated Ecosystem Assessment, Seattle, January 2018.
- c) 2nd International EA Conference on Status Implementing EA in the Arctic, Fall 2018
- d) PAME/ICES/PICES Working Group on Integrated Ecosystem Assessment in the Central Arctic Ocean (WGICA)

**UPDATE**

**WGICA**

**ICES/PICES/PAME**

**Working Group on Integrated Ecosystem  
Assessment for the Central Arctic Ocean**

Co-chairs:

John Bengtson, NMFS, NOAA, Seattle, USA

Hein Rune Skjoldal, IMR, Bergen, Norway

Sei-ichi Saitoh, Hokkaido University, Japan

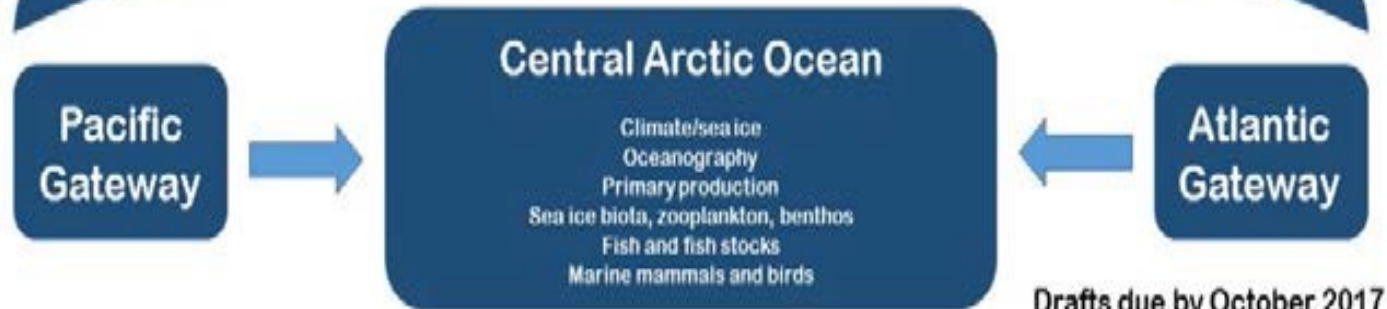


# WGICA 2017

- 2nd meeting, at NOAA in Seattle, 19-21 April
- 23 persons from four countries (Canada, Japan, Norway, United States of America)
- Report available  
(<http://www.ices.dk/community/groups/Pages/WGICA.aspx>)
- Next meeting 2018 location TBD



## KEY FEATURES



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Drafts due by April 2018



## VULNERABILITIES AND IMPACTS

# Core elements of the CAO IEA

- **Ecosystem description** with emphasis on key characteristics of the CAO – Annex 2 (Short version)
- Level of **primary production** – literature review (Annex 3)
- **Fish** in the CAO (FiSCAO)



Thank you!

# Six elements of the Ecosystem Approach (JOINT EA-EG)

1. Identify the ecosystem

2. Describe the ecosystem

3. Set ecological objectives

4. Assess the ecosystem

5. Value the ecosystem

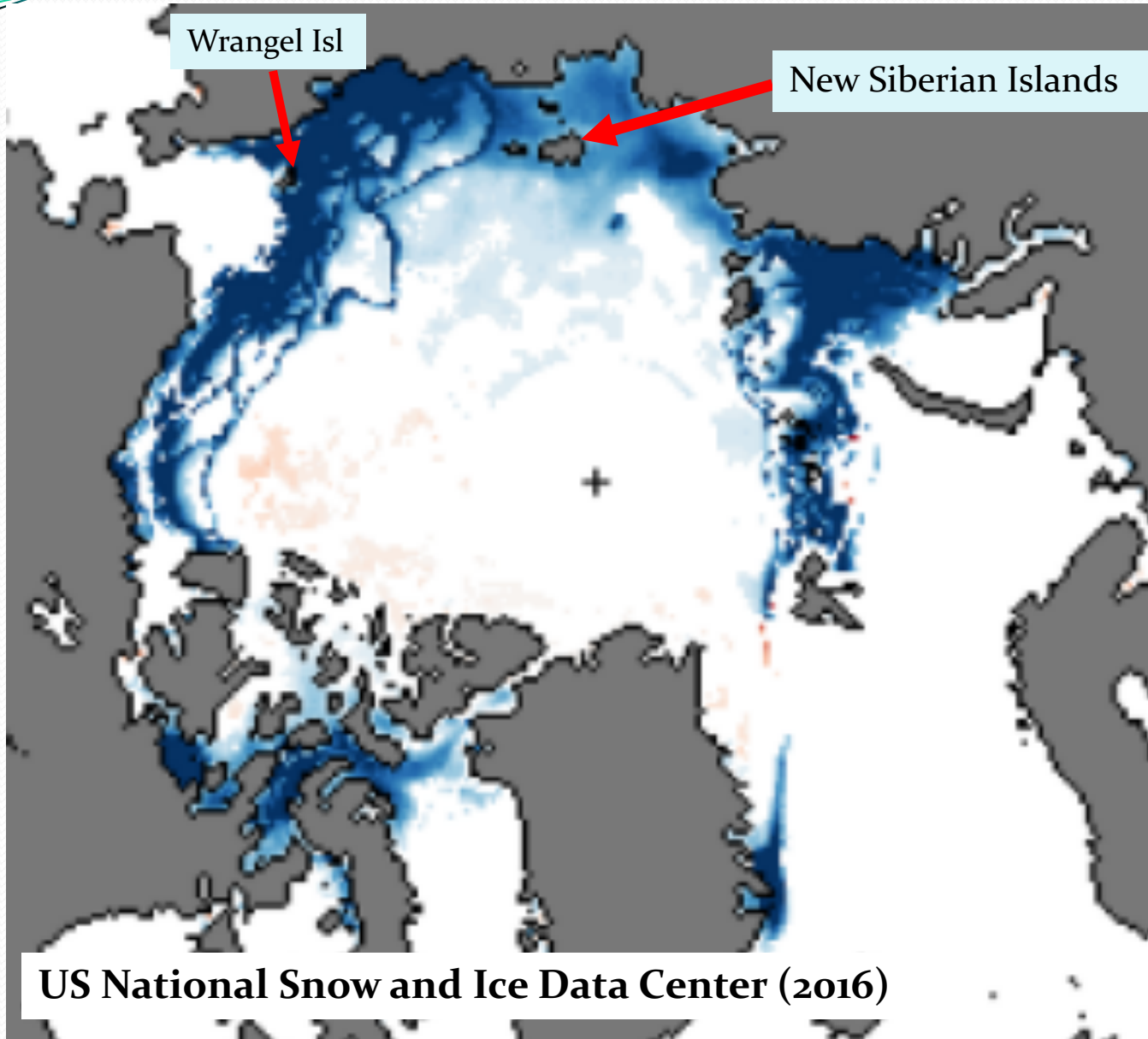
6. Manage human activities

Roles for  
CAFF/CBMP

Arctic States

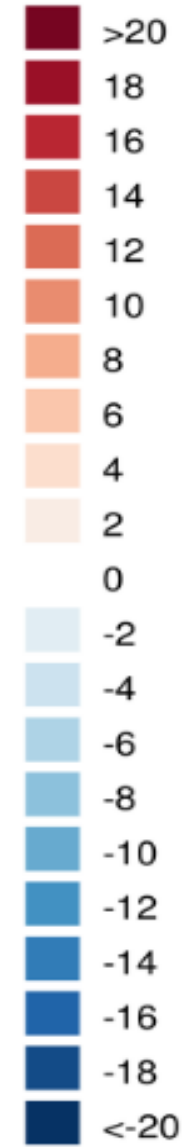
CAFF/CBMP bears direct (1,2,4) or partial responsibility for implementing four of the six elements of EA

# Monthly Sea Ice Concentration Trends October



National Snow and Ice Data Center, Boulder, CO

% per decade  
Since 1979



% per decade