

Voyage Planning in the Polar Code: An Environmental Perspective

Daniel Hubbell, Environmental Investigation Agency
Dr. Sian Prior, Antarctic and Southern Ocean
Coalition



Polar Code and the Environment

A large, dark-hulled icebreaker ship is visible in the background, sailing on a body of water. In the foreground, there is a large, irregular ice floe. The scene is set in a polar or sub-polar environment, with a hazy, overcast sky.

- Categories of vessels (Definitions)
- Polar Water Operational Manual (Chapter 2)
- Damage stability (Chapter 4)
- Watertight and Weathertight Integrity (Chapter 5)
- Navigation (Chapter 9)
- **Voyage planning (Chapter 11)**
- Training (Chapter 12)
- Pollution Prevention (Part II A Chapters 1 - 5) and Part II B

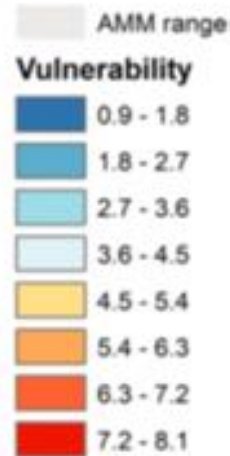
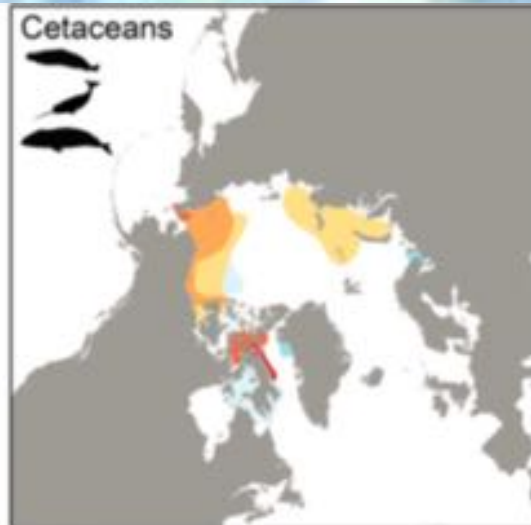
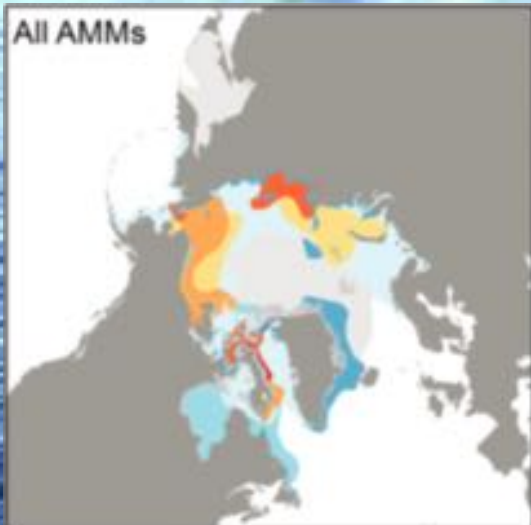
□ [Masters should take into account]:

□ 'current information and measures to be taken when marine mammals are encountered relating to known areas with densities of marine mammals, including seasonal migration areas,' (paragraph 11.3.6)

□ and 'current information on relevant ships' routing systems, speed recommendations and vessel traffic services relating to known areas with densities of marine mammals, including seasonal migration areas' (paragraph 11.3.7)

Marine Mammals in Chapter 11

Marine Mammals of the Arctic



From Hauser et al. 2018

Threats to marine mammals in polar regions

- Ship strike
- Underwater noise
- Disturbance (feeding, breeding, habitat)
- Pollution - oil / chemical spills, plastics
- Entanglement
- Climate change



Photo: Paul Nicklen/SeaLegacy.org

Chapter 11 on the Forum

- 7 Sources on Marine Mammals
- Best Coverage in Canada, including WWF, Oceans North, Nunavut Planning Commission, and Canadian Hydrographic Service
- 1 each for Greenland, USA, and Norway/Svalbard
- 1 on Southern Ocean (CCAMLR)
- No Russian Data on Marine Mammals at Present



The Mariner's Guide



Eastern Arctic Mariner's Guide

Seals, Walrus and Fish



Whales



WWF RECOMMENDATIONS

- Based on scientific input and Traditional Knowledge, Arctic Council Action Plan, Sustainable Shipping and Marine Wildlife Management Plan, North Pacific Regional Level Plan, and WWF suggestions, States are encouraged to take appropriate measures:
- Walrus Haslouts**
- Maintain a record of the 12/12 record of walrus haslouts, and their timing the year.
 - Reduce walrus bycatch in fishing, trapping and navigation areas from mid-July to mid-September and before navigation commences in the vicinity of walrus haslouts.
 - Walrus will be given right of way.
 - Minimize a straight course and maintain speed, avoiding erratic behavior.
 - When walrus movements appear to be rapid or erratic, the vessel commander should approach appropriate measures to reduce disturbance, including a range of 1 kilometre and 10-15 knots from walrus along the navigation area, and adjust to maintain 1 kilometre from walrus in the presence of walrus movements.
 - Walrus are to be avoided.
- Small whale sighting**
- Small whaling to continue may be allowed under close watch (contact to walrus).
 - Polaris as target vessel for ice search.
 - Small whaling to continue opportunistically (November to April).

- Blue whale**
- Small whaling to continue through and around the edge in April, May and June.
- Sea-birds**
- Small whaling to continue for Herring, Spruce and Sledging.
- Speed**
- Maintain a straight course and maintain speed of 11 to 12 knots in the open ocean and 10 knots in ice.
- Wales**
- When whales are present, slow speed.
 - Ice is not to be used for close range whale sightings.
 - Ice is not to be used for close range whale sightings. Avoid all other small search vessels.
 - A low altitude distance from ship, and low speed.
 - Ice is not to be used for close range whale sightings, avoiding navigation of up to 10 kilometres.
- Small whale sighting**
- Small whaling to continue under appropriate circumstances when the vessel is aware, within recommended 1200 metres.
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- Small whaling to continue under appropriate circumstances when the vessel is aware, within recommended 1200 metres.
- Contaminated zone**
- Close range of 100 to 200 metres, or 100 to 200 metres, depending on the vessel's location. Avoid the "contaminated zone" during the relevant season.

Awareness Raising and Workshops



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SUB-COMMITTEE ON NAVIGATION,
COMMUNICATIONS AND SEARCH AND
RESCUE
5th session
Agenda item 22

NCSR 5/22/8
15 December 2017
Original: ENGLISH

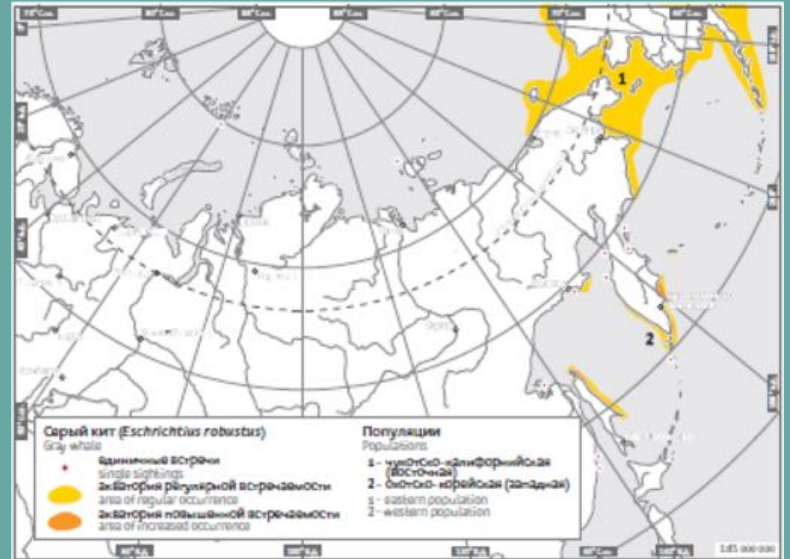
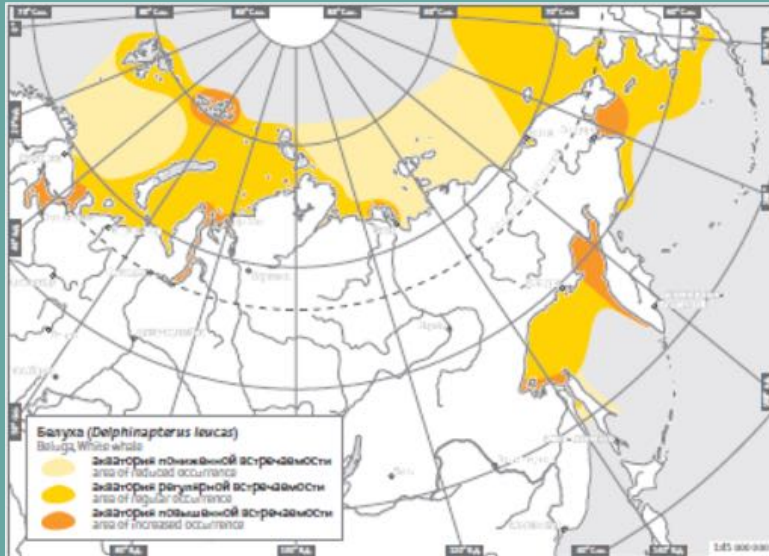
ANY OTHER BUSINESS

New information sources to support implementation of the Polar Code marine mammal avoidance provisions

Policy changes to reduce vessel strikes

- 1999 U.S. Mandatory ship reporting (educational) - southeast and northeast (first proposal to IMO)
- 2003 Bay of Fundy shipping lane amended – IMO precedent
- 2006 U.S. Recommended routes – southeast Florida and northeast Cape Cod Bay
- 2007 Boston shipping lanes amended
- 2008 Roseway Basin Area To Be Avoided – IMO precedent
- 2008 U.S. Speed rule (≤ 10 knots) and Seasonal and Dynamic management areas 5 year sunset clause removed in 2014.
- 2009 U.S. Great South Channel Area To Be Avoided and amended lanes
- Right whales have more protection from vessel strikes throughout their range from Florida to Fundy ... but now addressing in new habitat areas.

Data Challenges



Climate Change



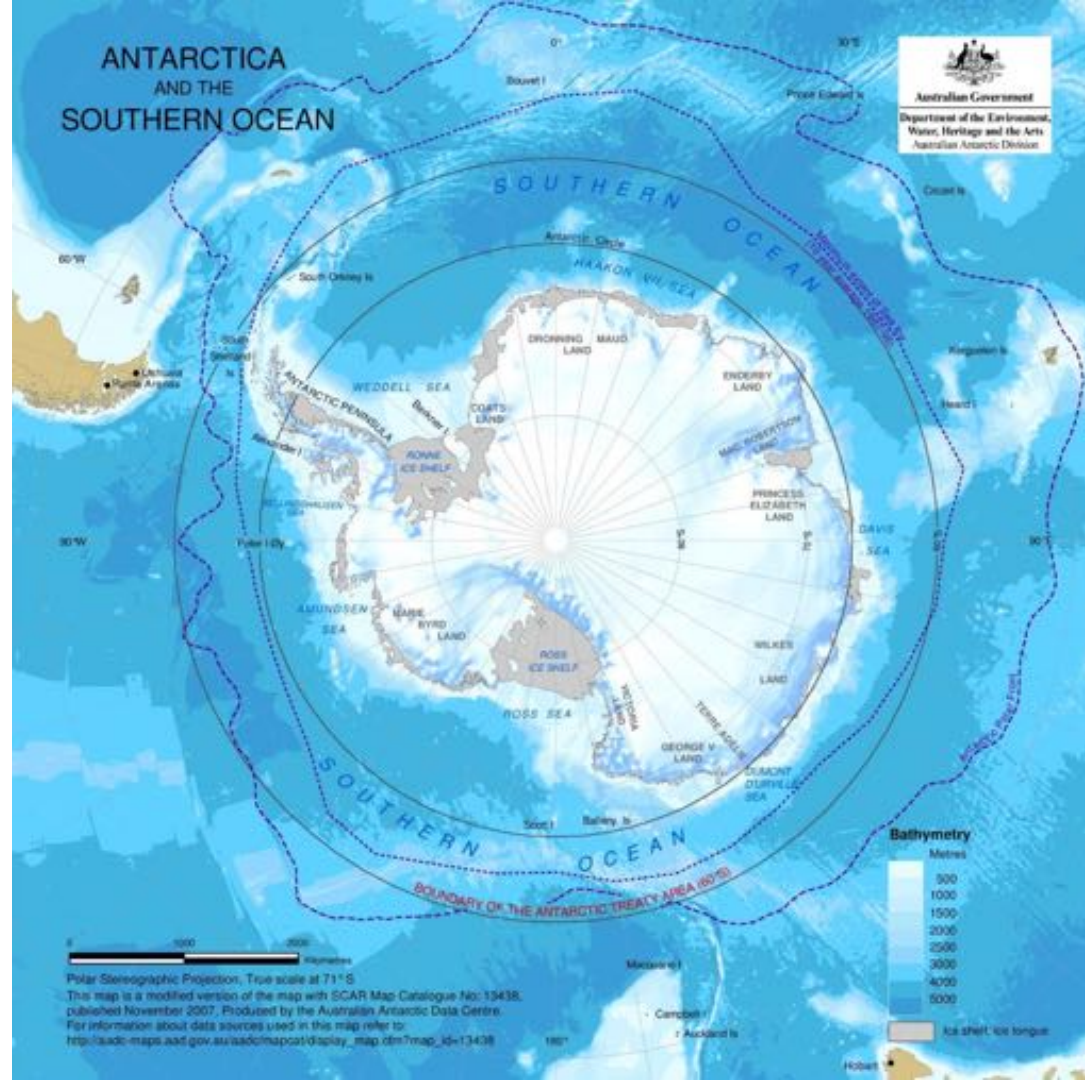
Planning in a Complex Environment

In addition to Marine Mammals:

- 1 the procedures required by the PWOM;
- .2 any limitations of the hydrographic information and aids to navigation available;
- .3 current information on the extent and type of ice and icebergs in the vicinity of the intended route;
- .4 statistical information on ice and temperatures from former years;
- .5 places of refuge;
- .8 **national and international designated protected areas along the route**; and
- .9 operation in areas remote from search and rescue (SAR) capabilities.

Best practices in the Southern Ocean

- Southern Ocean vessels
 - Cruise ships
 - Fishing vessels
 - Resupply / research ships
- IAATO / CCAMLR / COMNAP
- Over 56,000 visitors last season / over 80,000 expected 2019/2020
- Exchange of experience and best practices



Antarctic Treaty



XLI ANTARCTIC TREATY
CONSULTATIVE MEETING
BUENOS AIRES - ARGENTINA
13 - 18 MAY 2018

ENG

Agenda Item:
Presented by:
Original:
Submitted:

CEP V
ASC
Eng
13/04

The Polar Code and Marine Mammal Avoidance Planning in the Internatic Maritime Organization

Paragraph

Styles

IP 59

The Polar Code and Marine Mammal Avoidance Planning in the International Maritime Organization

Information Paper submitted by ASOC¹

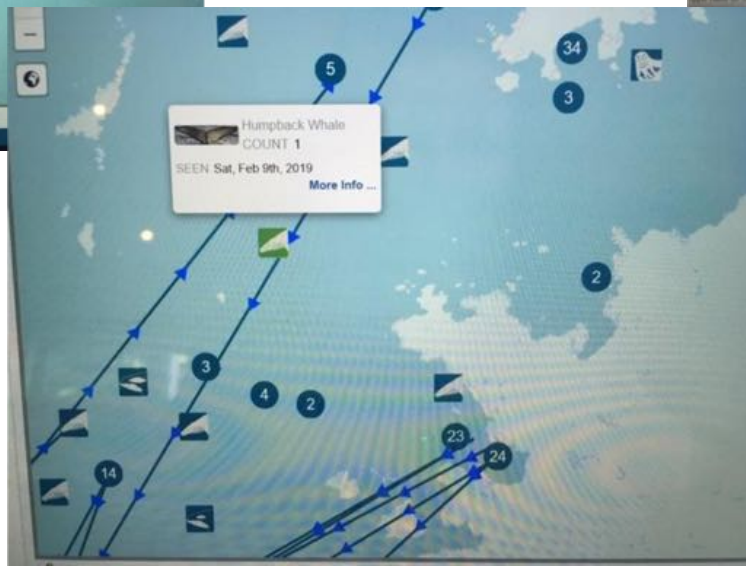
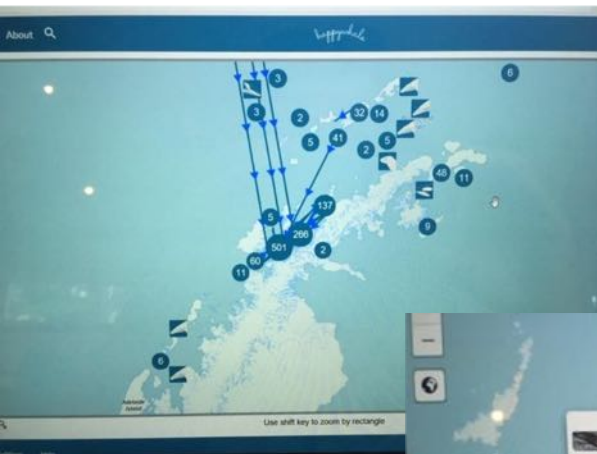
Summary

This paper provides information on the marine mammal² avoidance provision of the International Maritime Organization's Polar Code, including sources of available information on marine mammal densities, and methods of conveying information to ship masters. ASOC advocates enhanced cooperation with the IMO and the Antarctic Treaty System (ATS), as well as further discussion by the CEP and ATCM on implementing the marine mammal avoidance provision in Antarctic waters.

Introduction

The impact of polar ship traffic on the marine environment in general, and marine mammals in particular, has become a topic of increasing concern in recent years. The impacts of increased shipping on polar cetacean populations will add to those due to climate change. Increasing temperatures and reductions and other potential changes in the

www.HappyWhale.com



A screenshot of the HappyWhale website's 'How It Works' section. The header reads: "Happywhale engages citizen scientists to identify individual marine mammals, for fun and for science." Below this are three buttons: "Learn More", "Submit Images", and "Browse Data". The main content area is titled "How It Works" and contains three panels:
1. "You submit photos of your marine mammal encounters" (with a photo of people in a boat).
2. "We identify your whales by their unique markings" (with a photo of a whale's tail).
3. "Happywhale tracks your whales around the world" (with a map showing global tracking).
At the bottom, there is a search bar with the text "Start typing to search".

A screenshot of the HappyWhale website's 'Information' tab for a specific whale sighting. The page is titled "Humpback Whale COUNT 1" and includes the following details:
SEEN Humpback Whale COUNT 1
SIGHTERS [Two photos of people]
DATE Saturday, February 9th, 2019
REGION Antarctica
SEA Southern Ocean
OCEAN Southern
SEEN ON VOYAGE Ponant Feb 8th - 17th, 2019
PONANT VESSEL L'Austral
LOCATION Antarctic Peninsula
DESCRIPTION 3 humpback whales surface feeding

Best practice
led by Antarctic
Tour Operators:

- 10kn speed
restriction

OR

- Extra
watchman
on bridge to
monitor and
record

INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS

50 South County Commons Way, Unit E-5B
South Kingstown, RI 02879 USA

+ 1 401 841 9700 OFFICE
+ 1 401 841 9704 FAX

IAATO is a member organization founded in 1991 to advocate and promote the practice of safe and environmentally responsible private-sector travel to the

iaato@
www.i

Antarctic Tour Operators Introduce Mandatory Measures to Prevent Whale Strikes

International Association of Antarctica Tour Operators
whales in Antarctic waters

FOR IMMEDIATE RELEASE: May 3, 2019
Cape Town, South Africa:

Members of the International Association of Antarctica Tour Operators (IAATO) have voted in mandatory measures to prevent whale strikes in cetacean-rich Antarctic waters.

At its annual meeting, this year held in Cape Town, South Africa, IAATO members voted on new measures that would instruct members to restrict speed and maintain a watchman on the bridge to monitor and record whale strikes within a specific geo-fenced area.



Proposed time-area voluntary speed restriction

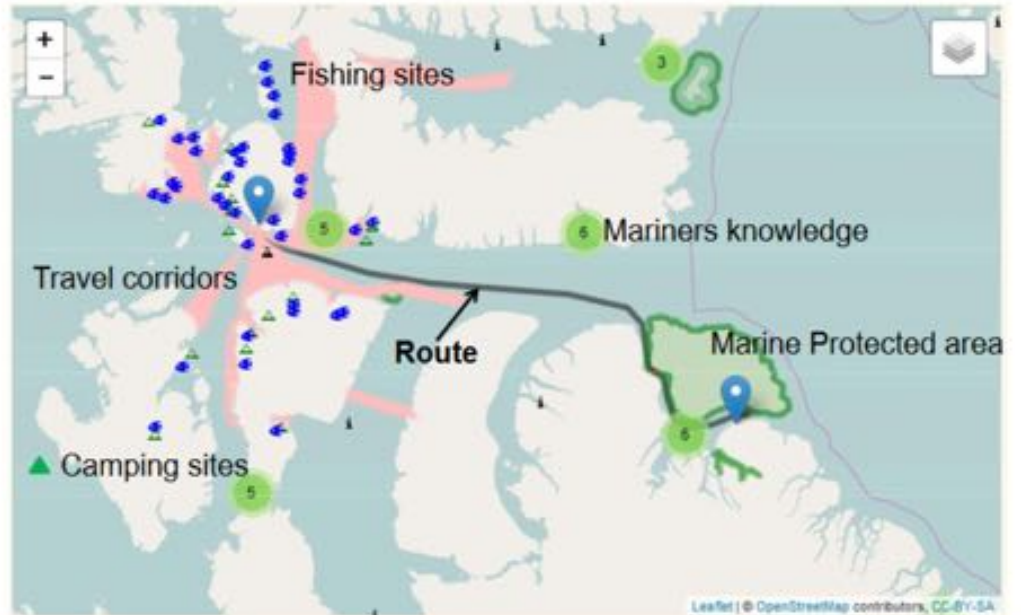
January 1 to May 31

February 1 to May 31

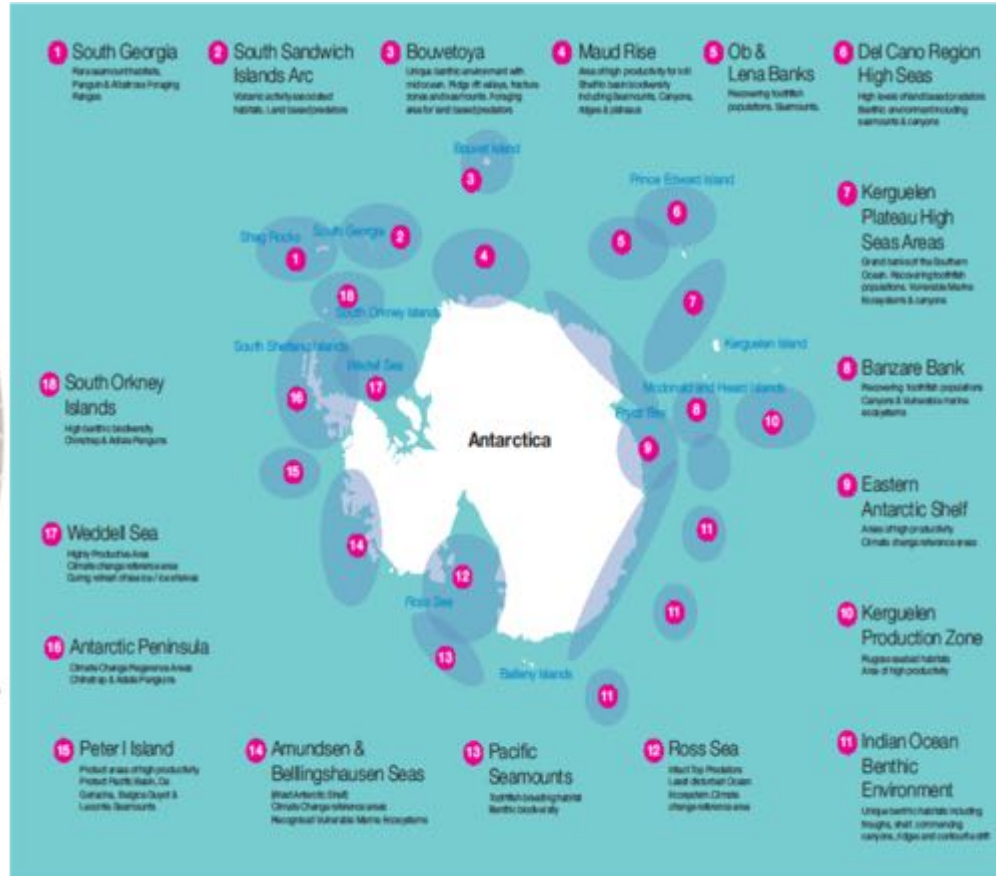
Next Steps for Marine Mammals

- Bridging Data Gaps
- Digital Integration of MM layers in navigation software

CASRAS application: Assessment of Shipping on Northern Local Activities – Route: Resolute to Pond Inlet



Next steps for voyage planning





Thank you!