ARCTIC SDI
Arctic Spatial Data Infrastructure

Enabling Access to Arctic Location Based Information - the Arctic SDI

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National Land Survey of Finland

Arctic Biodiversity Conference

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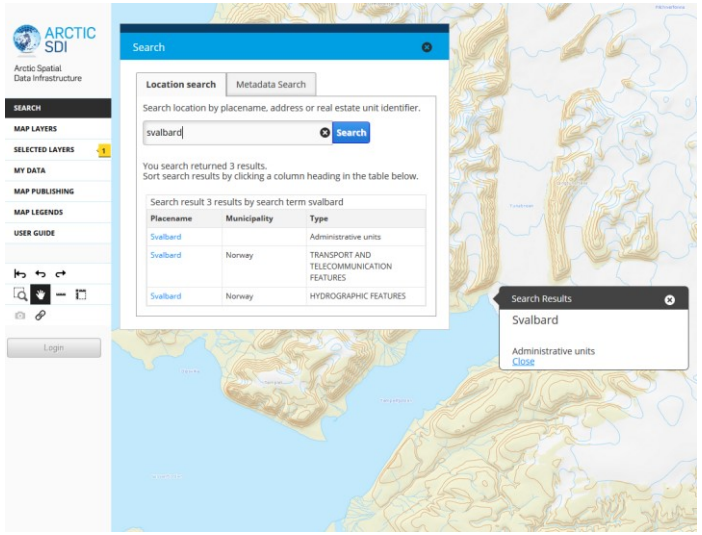
arctic-sdi.org

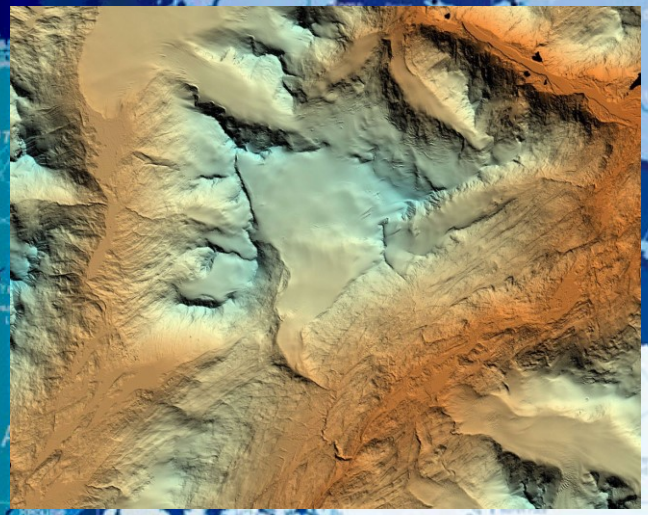
Arctic SDI Services and Geoportal Demonstration

Data Resources

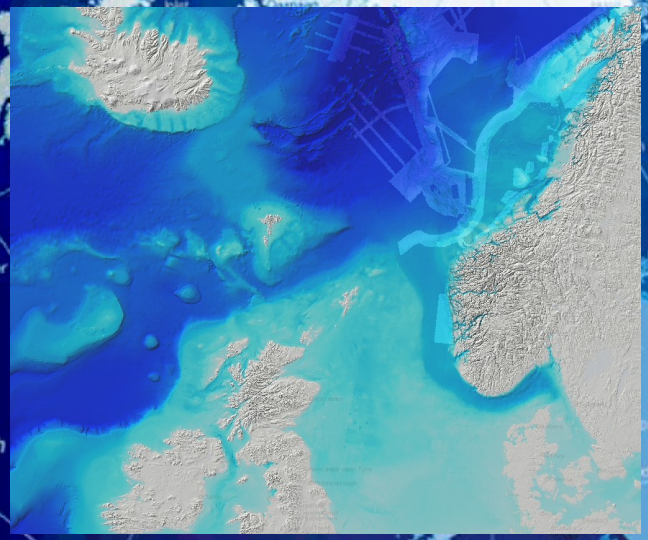
- Pan-Arctic Digital Elevation Map
- Marine Data
- Gazetteer Database and Search
- Arctic Reference Basemap



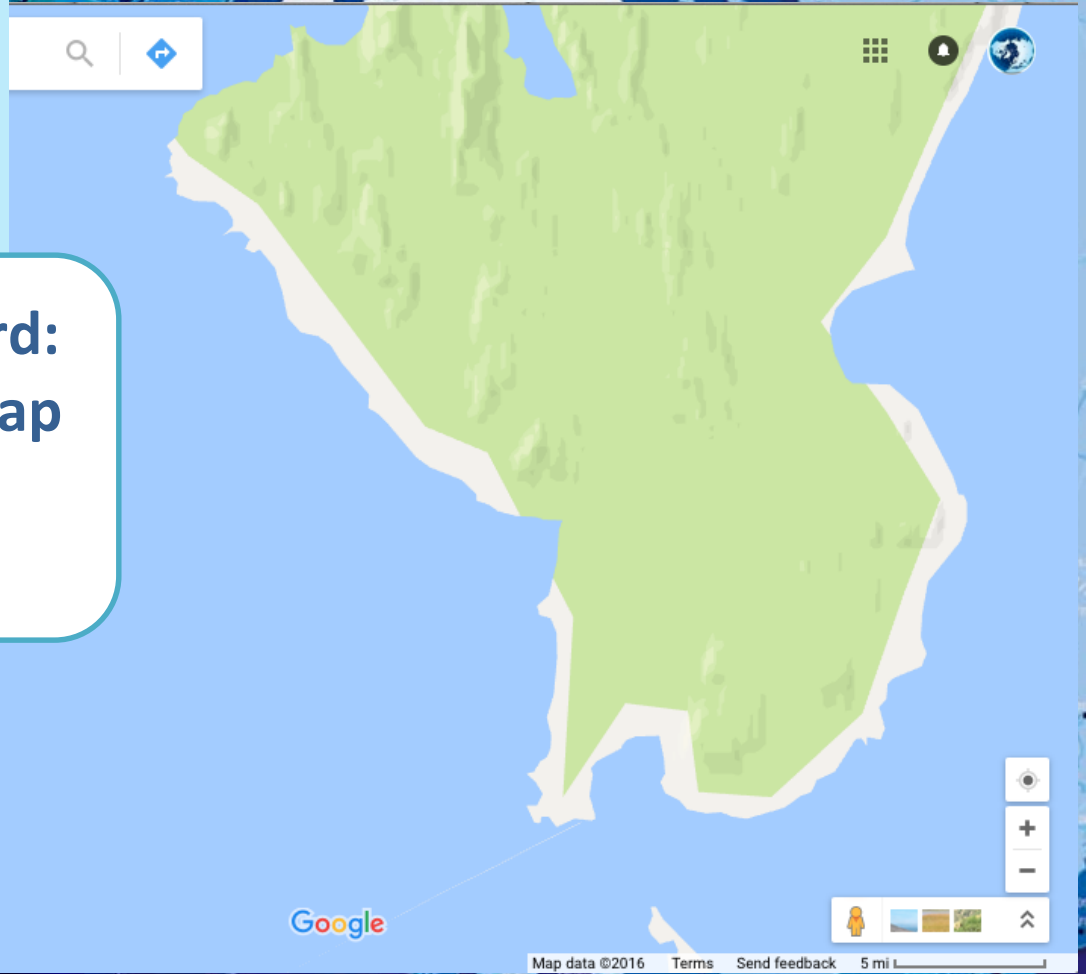
Gazetteer search



Pan-Arctic DEM



Shaded relief for depths



Southern Svalbard:
Arctic SDI Basemap
vs.
Google Maps

Arctic SDI provides access to authoritative data

Arctic SDI Geoportal

ARCTIC SDI
Arctic Spatial Data Infrastructure

SEARCH
MAP LAYERS
SELECTED LAYERS 3
MY DATA
MAP PUBLISHING
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USER GUIDE
THEMATIC MAPS

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Map Legends

Shipping Accidents and Incident Causes

Shipping accidents and incident causes

- COLLISION
- DAMAGE TO VESSEL
- FIRE/EXPLOSION
- GROUNDED
- MACHINERY DAMAGE/FAILURE
- MISCELLANEOUS
- SUNK/SUBMERGED

Arctic SDI Topographic Basemap

default

- Populated places
- National boundaries
- Sub-national boundaries
- Protected sites
- Terrain contours
- Coastline *Ordinary*
- Coastline *Steep and rocky*
- Sea
- Waterbodies
- Watercourse lines
- Watercourse areas
- Wetlands
- Glacier contours
- Glaciers and snowfields*
- Glaciers and snowfields *Icy precipies/fossil ice*
- Glaciers and snowfields* *Icy precipies/fossil ice*
- Railway stations
- Ports
- Seaplane bases
- Heliports
- Airports
- Aerodrome areas
- Main roads
- Main roads *Tunnels*
- Regional roads
- Regional roads *Tunnels*
- Local roads
- Local roads *Tunnels*
- Ferry crossings
- Railway lines
- Railway lines *Tunnels*
- Runway lines
- Non regular roads
- Soil surface regions *Moraines*
- Soil surface regions *Moraines/stony*
- Soil surface regions *Rocky*
- Soil surface regions *Rocky*
- Soil surface regions *Sand*
- Agricultural areas
- Builtup areas
- Builtup areas *Quarters/farms/buildings*
- Grass vegetation
- Shrub vegetation
- Tundra vegetation
- Wood and forests
- Unclassified areas

*Symbol in map has no outline

Select Projection

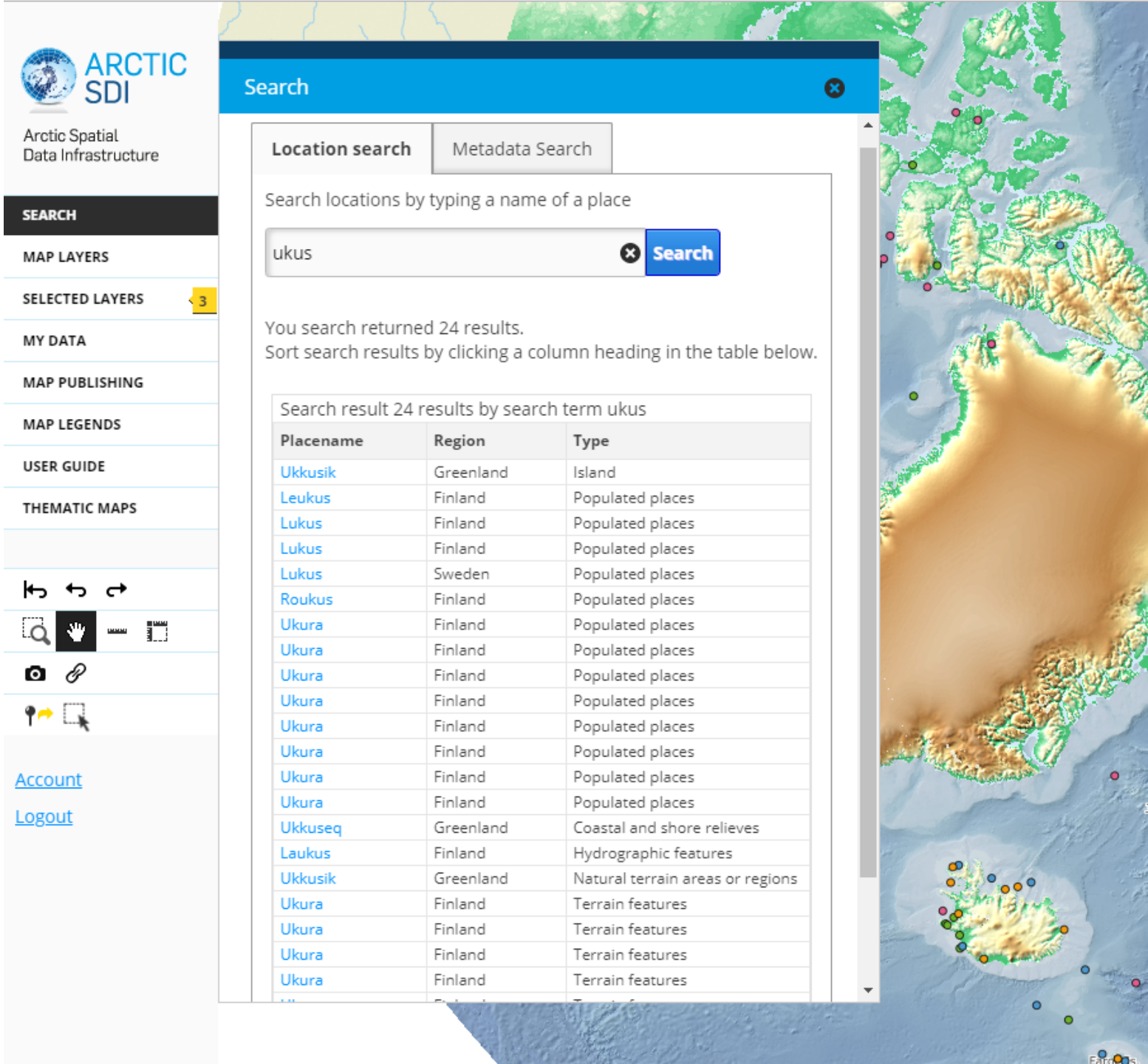
Bering Sea | Alaska | Canada
Atlantic | Europe | Russia

Jan Mayen

500 km

Terms of Use Data Sources

Pan-Arctic Gazetteer Search



Metadata Search

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Search

Location search | **Metadata Search**

Search Results — Show only datasets | Show only services | Edit search options

Name

- Circumpolar distribution of arctic char species complex Salvelinus alpinus, and related species (publication:2001-01-01, update frequency: irregular)
- Cumulative numbers of marine fish. (publication:2014-12-16, update frequency: unknown)
- Boundary for Arctic Assessment and Monitoring Programme (AMAP) working group of the Arctic Council
- Lichen Arctic regions, CAFF
- Locations of sub-Arctic and Arctic shipping accidents and incident causes, 1995-2004 (publication:2014-12-16, update frequency: irregular)
  - Shipping Accidents and Incident Causes Hide map layer
- Arctic vascular plant species (publication:2014-12-16, update frequency: unknown)
- The Arctic Ocean and adjacent seas: marine fish species (AOAS regions) (publication:2014-12-16, update frequency: irregular)
- Arctic SDI Discovery Service, Arctic SDI
- Boundaries of the geographic area covered by the Arctic Biodiversity Assessment, CAFF (creation:2001-02-01, update frequency: asNeeded)
  - CAFF Boundary Show map layer
- Avian biodiversity in different regions of the Arctic (publication:2014-12-16, update frequency: unknown)
- Major flyways of Arctic birds (publication:2015-02-18, update frequency: unknown)

500 km

Terms of Use | Data Sources

Metadata

Locations of sub-Arctic and Arctic shipping accidents and incident causes, 1995-2004

Basic information | ISO 19115 metadata | Inspire metadata | Data quality | Actions

LOCATIONS OF SUB-ARCTIC AND ARCTIC SHIPPING ACCIDENTS AND INCIDENT CAUSES, 1995-2004

ABSTRACT TEXT (DATA)

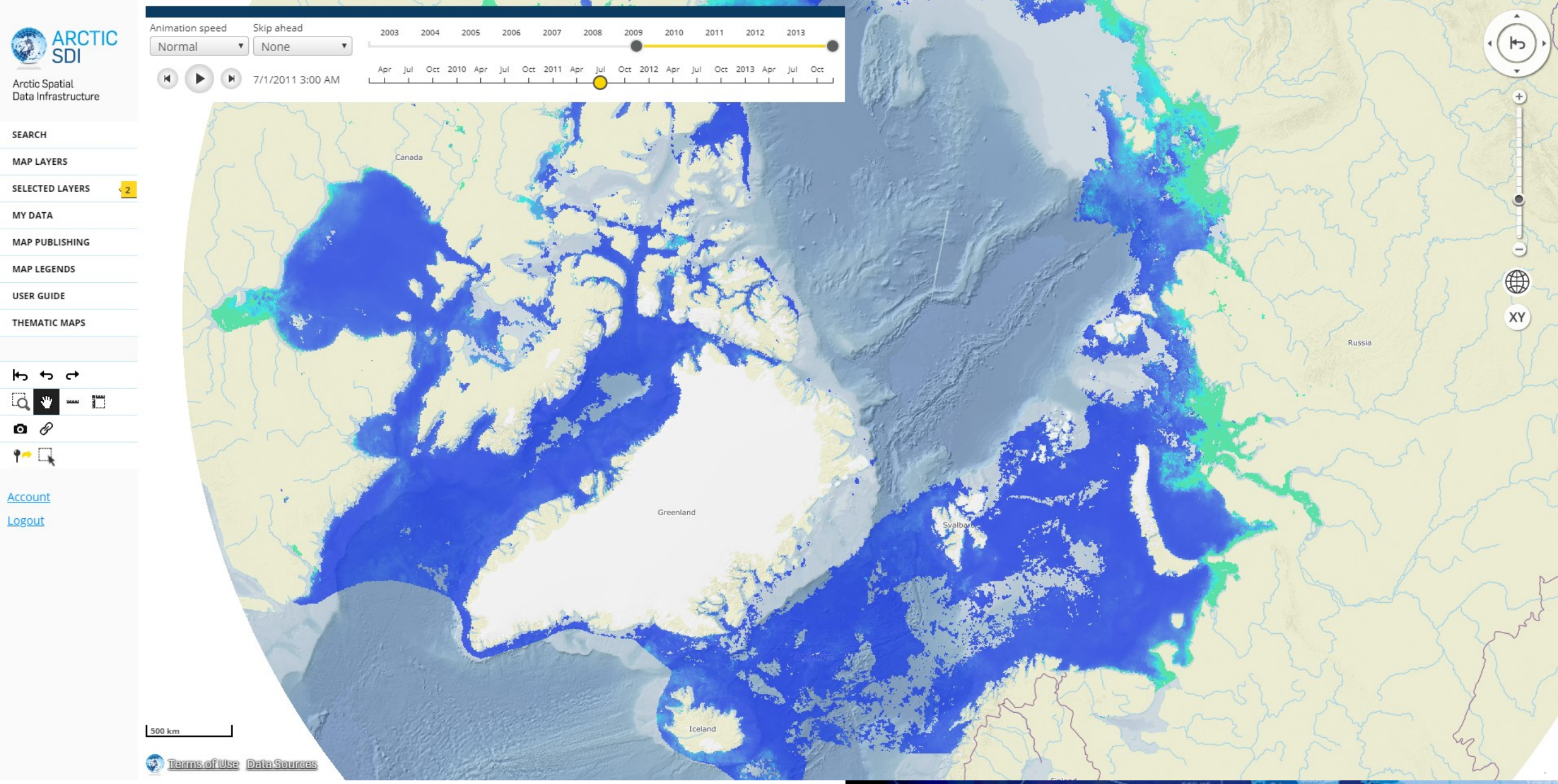
Locations of sub-Arctic and Arctic shipping accidents and incident causes, 1995-2004 (source: Arctic Marine Shipping Assessment 2009).

Published in the Arctic Biodiversity Assessment (ABA) released in 2014.

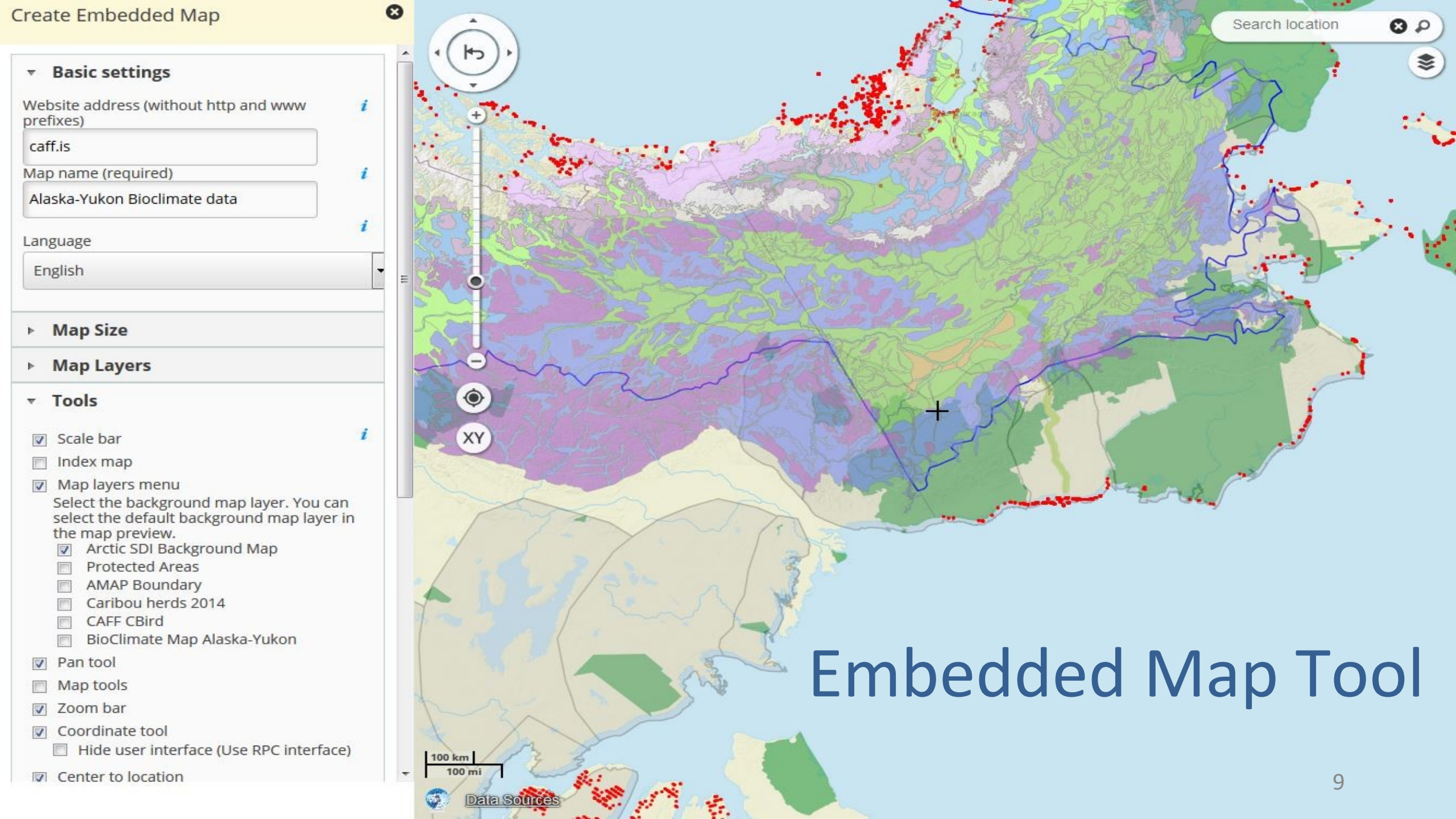
METADATA DATE

2017-03-21T09:22Z

XY



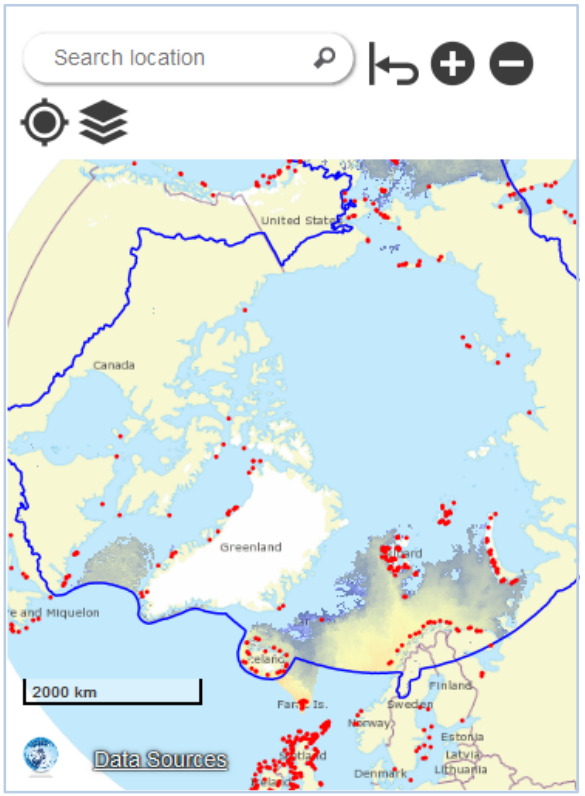
Visualization of Time Series


Create Embedded Map
Basic settings
Website address (without http and www prefixes)
caff.is
Map name (required)
Alaska-Yukon Bioclimate data
Language
English
Map Size
Map Layers
Tools
Scale bar
Index map
Map layers menu
Select the background map layer. You can select the default background map layer in the map preview.
Arctic SDI Background Map
Protected Areas
AMAP Boundary
Caribou herds 2014
CAFF CBird
BioClimate Map Alaska-Yukon
Pan tool
Map tools
Zoom bar
Coordinate tool
Hide user interface (Use RPC interface)
Center to location
Search location
XY
100 km
100 mi
Data Sources
Embedded Map Tool

Embedded Map mockup on CAFF Web Page

Search CAFF

Search ... Go



2012 Arctic Report Cards describe dramatic changes in the Arctic (December 4, 2012)

December 4, 2013, U.S.A.- The Arctic Council, through the Arctic Monitoring and Assessment Programme (AMAP) and the Conservation of Arctic Flora and Fauna's (CAFF) Circumpolar Biodiversity Monitoring Programme (CBMP), has contributed to the Arctic Report Card, an annual report released today by the National Oceanic and Atmoshperic Administration (NOAA) that monitors the often-quickly changing conditions in the Arctic.

The peer-reviewed report contains contributions from 141 authors from 15 countries. For this year's issue CAFF's CBMP developed and edited the terrestrial and marine ecosystem chapters in cooperation with others, while AMAP organized an independent peer-review process involving international experts.

The Arctic region continued to break records in 2012—among them the loss of summer sea ice, spring snow cover, and melting of the Greenland ice sheet. This was true even though air temperatures in the Arctic were unremarkable relative to the last decade, according to the report.

Major findings include:

- ***Snow cover***: A new record low snow extent for the Northern Hemisphere was set in June 2012, and a new record low was reached in May over Eurasia.
- ***Sea ice***: Minimum Arctic sea ice extent in September 2012 set a new all-time record low, as measured by satellite since 1979.
- ***Greenland ice sheet***: There was a rare, nearly ice sheet-wide melt event on the Greenland ice sheet in July, covering about 97 percent of the ice sheet on a single day.
- ***Vegetation***: The tundra is getting greener and there's more above-ground growth. During the period of 2003-2010, the length of the growing season increased through much of the Arctic.
- ***Wildlife and food chain***: In northernmost Europe, the Arctic fox is close to extinction and vulnerable to the encroaching Red fox. Additionally, massive phytoplankton blooms below the summer sea ice suggest estimates of biological production at the bottom of the marine food chain may be ten times too low.
- ***Ocean***: Sea surface temperatures in summer continue to be warmer than the long-term average at the growing ice-free margins, while upper ocean temperature and salinity show significant interannual variability with no clear trends.
- ***Weather***: Most of the notable weather activity in fall and winter occurred in the sub-Arctic due to a strong positive North Atlantic Oscillation. There were three extreme weather events including an unusual cold spell in late January to early February 2012 across Eurasia, and two record storms characterized by very low central pressures and

Embedded Map mockup on CAFF Web Page

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CAFF

Search CAFF

Search ... Go

- Monitoring: The CBMP
- About the CBMP
- Marine Ecosystem
  - State of the Arctic Marine Biodiversity Report (SAMBR)
  - Marine Steering Group
  - Marine Monitoring Plan
  - Marine Expert Networks
  - Marine Monitoring Publications
  - Marine Data
- Freshwater Ecosystem
- Terrestrial Ecosystem
- Coastal Ecosystem
- Community Based Monitoring
- Indices and Indicators
- Monitoring Data
- Monitoring Publications
- CBMP Newsletter
- CBMP Partners
- Contact the CBMP
- Interact-WP7

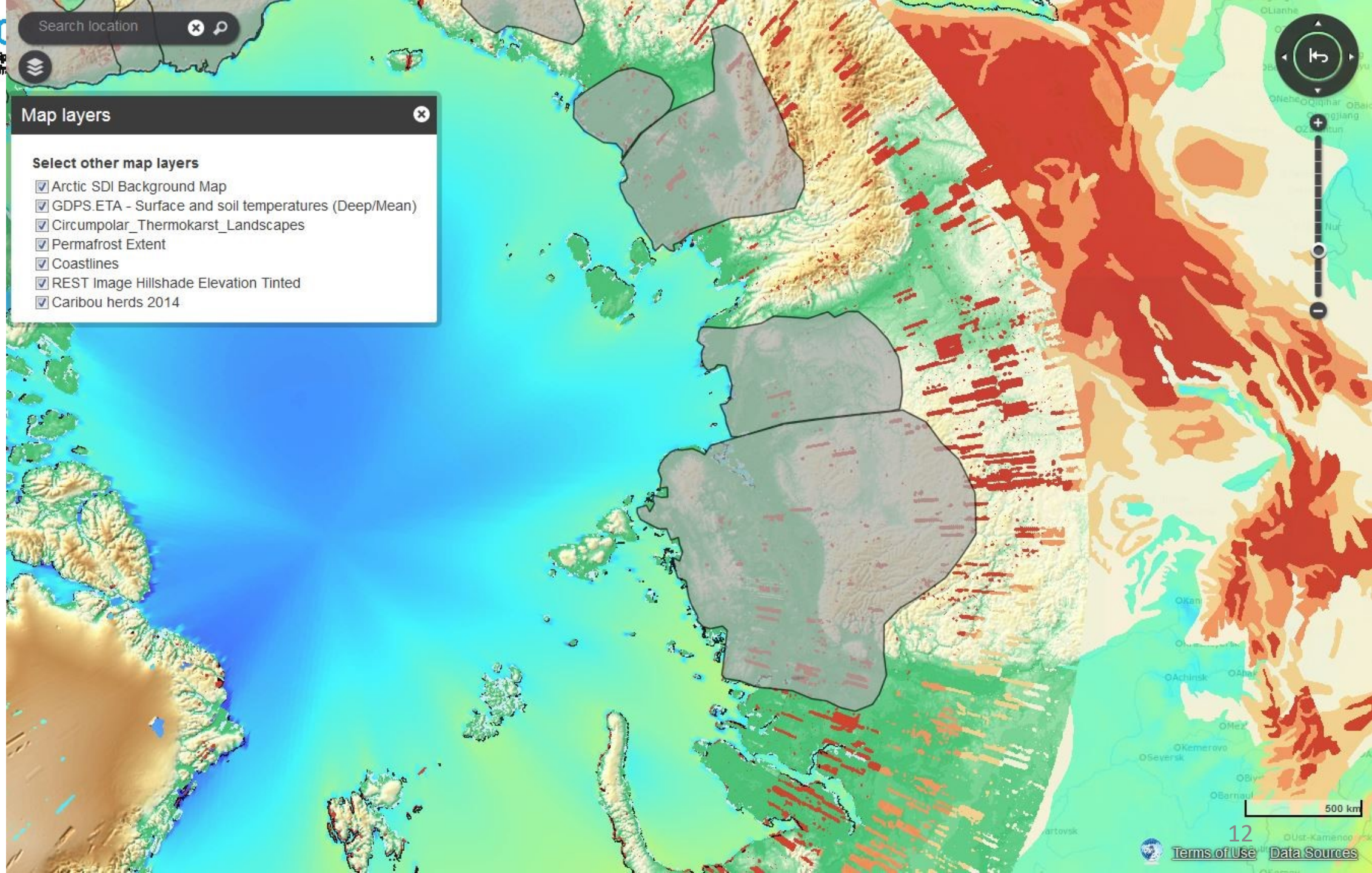
Marine Ecosystem Monitoring

Arctic marine environments are experiencing, or expected to experience, many human-induced and natural pressures from:

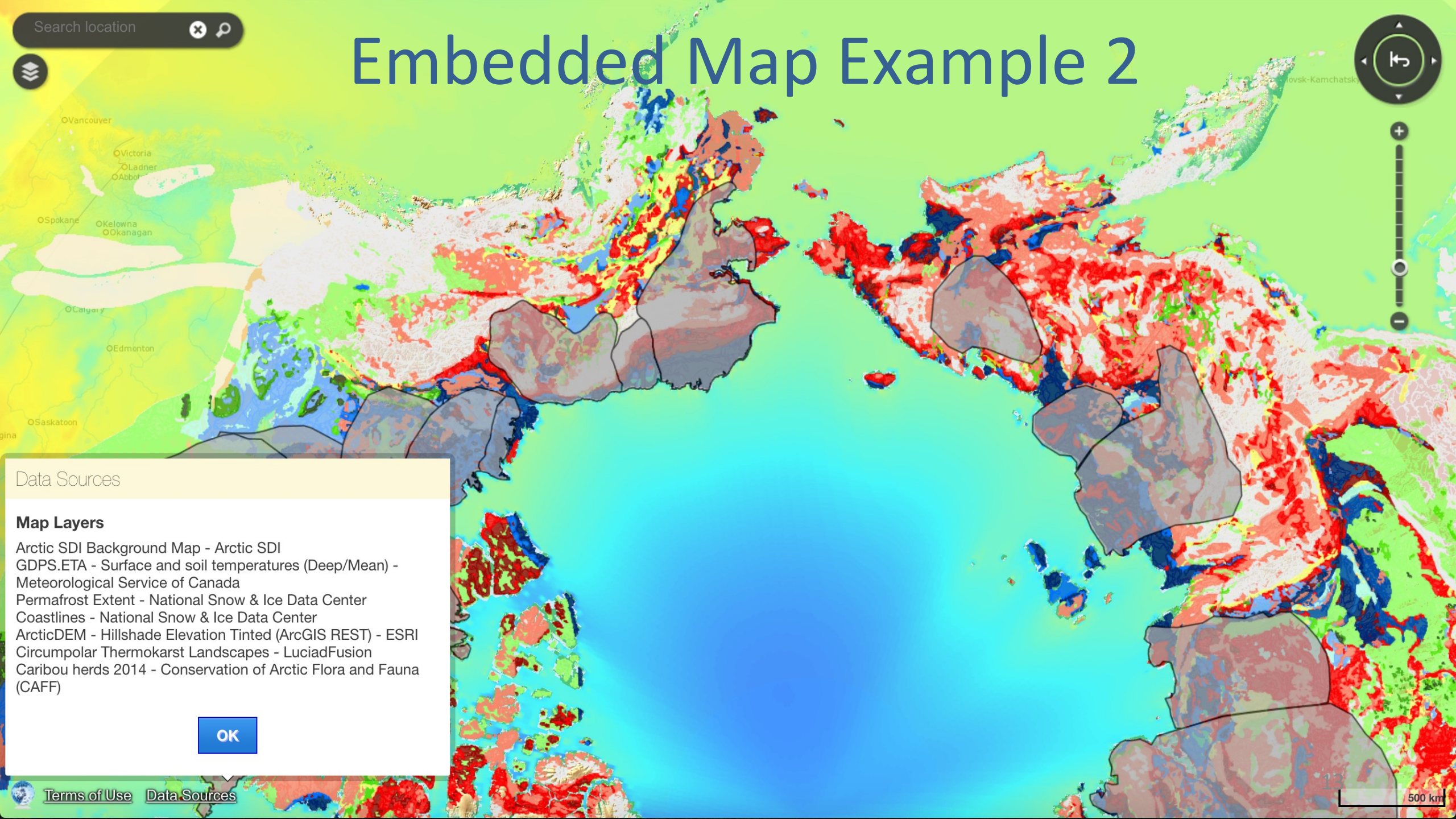
- Climate change
- Harvest
- Industrial development
- Contaminants
- Introduced alien species
- Tourism
- Disease and parasites
- Scientific research
- Shipping

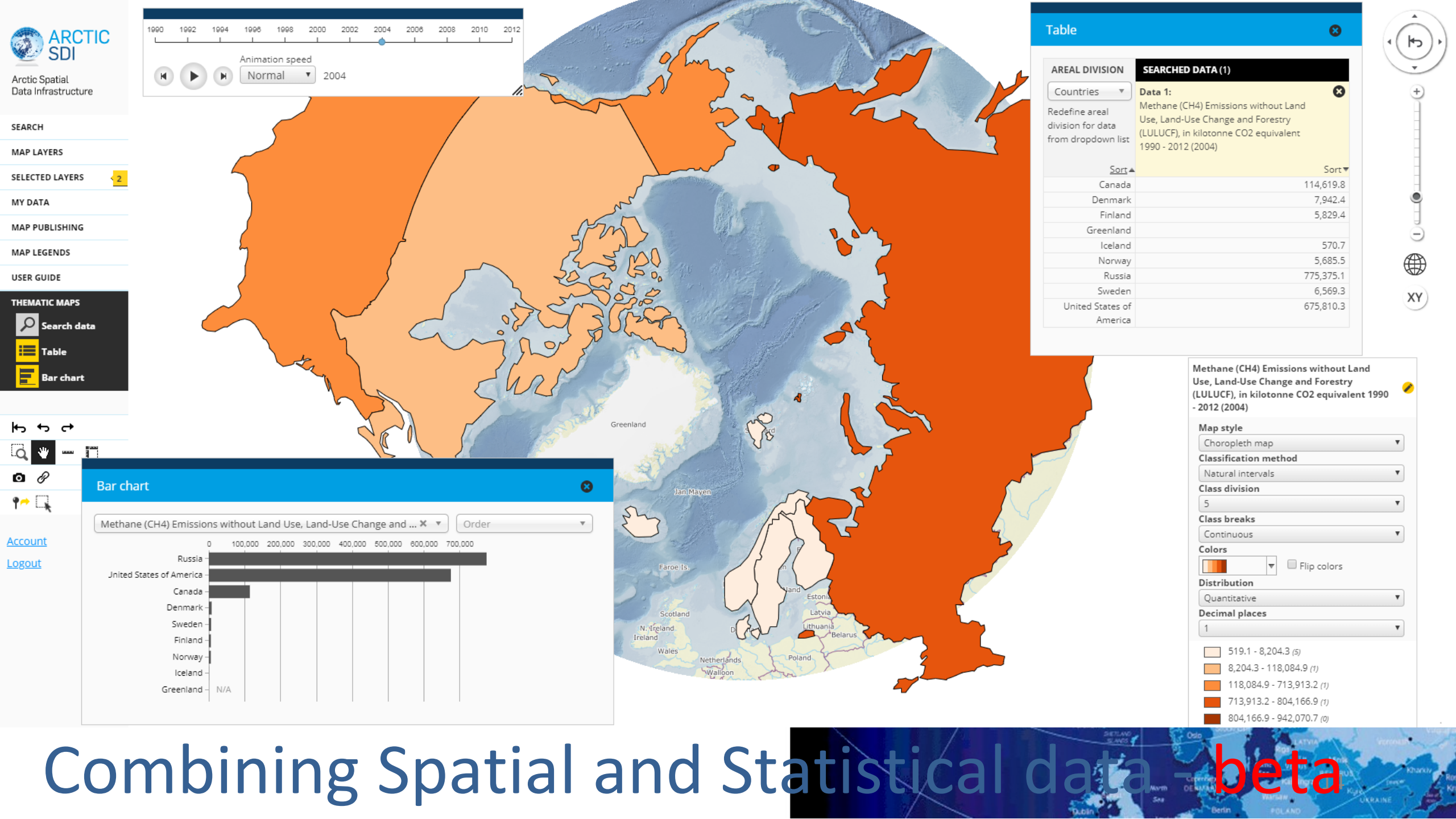
It is not certain how these pressures - alone and in combination - affect marine species and ecosystems because the Arctic's complexity and size make it difficult to detect and attribute changes in marine biodiversity. In addition, existing marine monitoring efforts are not connected on a circumpolar scale, which limits the ability to efficiently make effective management decisions.

Embedded Map Example



Embedded Map Example 2

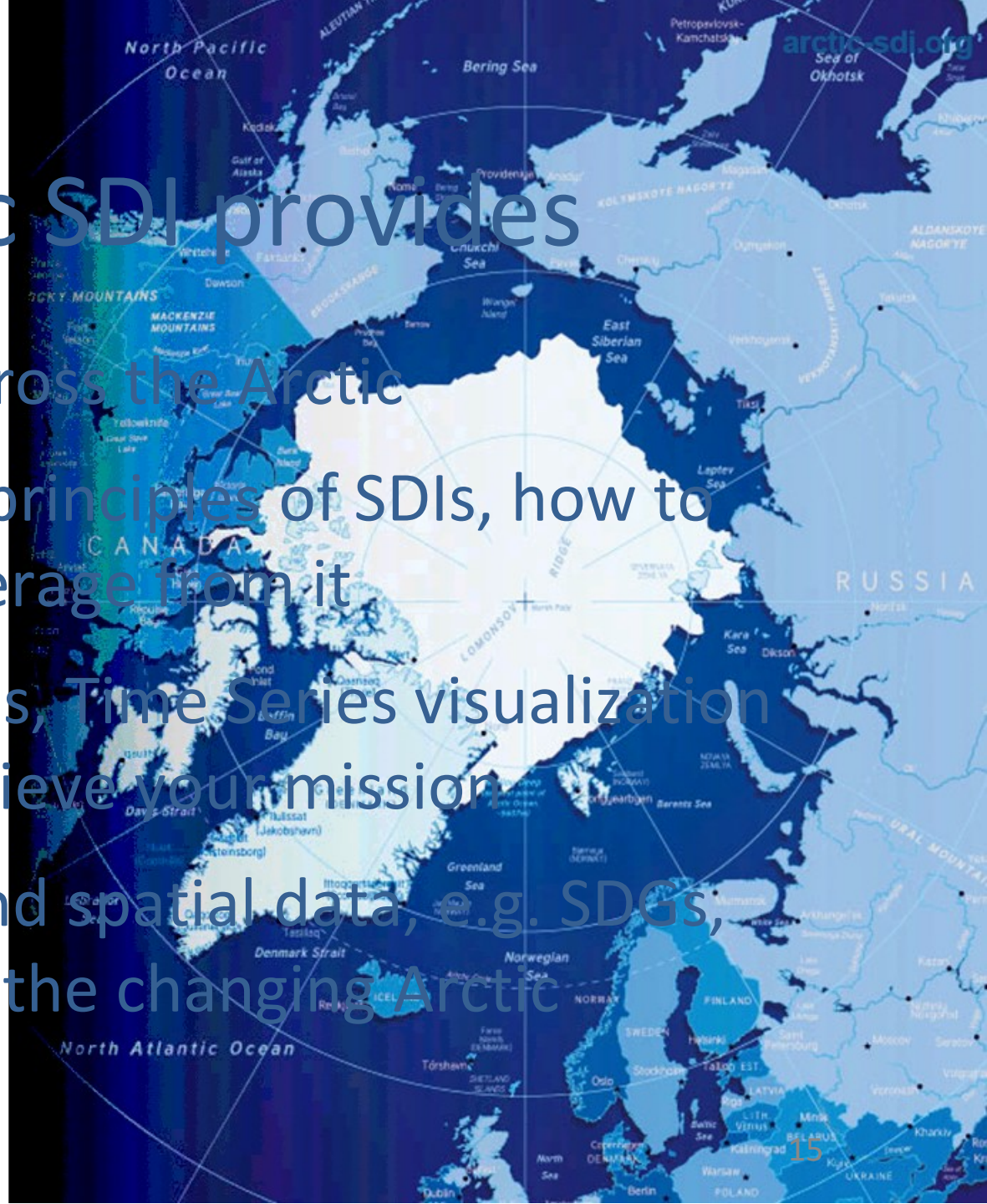




Combining Spatial and Statistical data - beta

In Summary, The Arctic SDI provides

- Access to Authoritative data across the Arctic
- Capacity building materials on principles of SDIs, how to bring your own data in and leverage from it
- Geoportal with Embedded maps, Time Series visualization and other tools to help you achieve your mission
- Means to combine statistical and spatial data, e.g. SDGs, over the Arctic to demonstrate the changing Arctic

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Data Infrastructure
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