NAMMCO

ANNUAL MEETING 31

Meeting of the Management Committee for Seals and Walrus

(Chair: Guro Gjelsvik)

Aqqalu Rosing-Asvid
Chair SC

Sandra M. Granquist
Vice-Chair SC

3.1 Bearded seal

3.1.1 Active request

- ***R-2.7.1 (renewed 2023, ongoing)*** *to complete its review and assessment of bearded seals no later than 2024.*

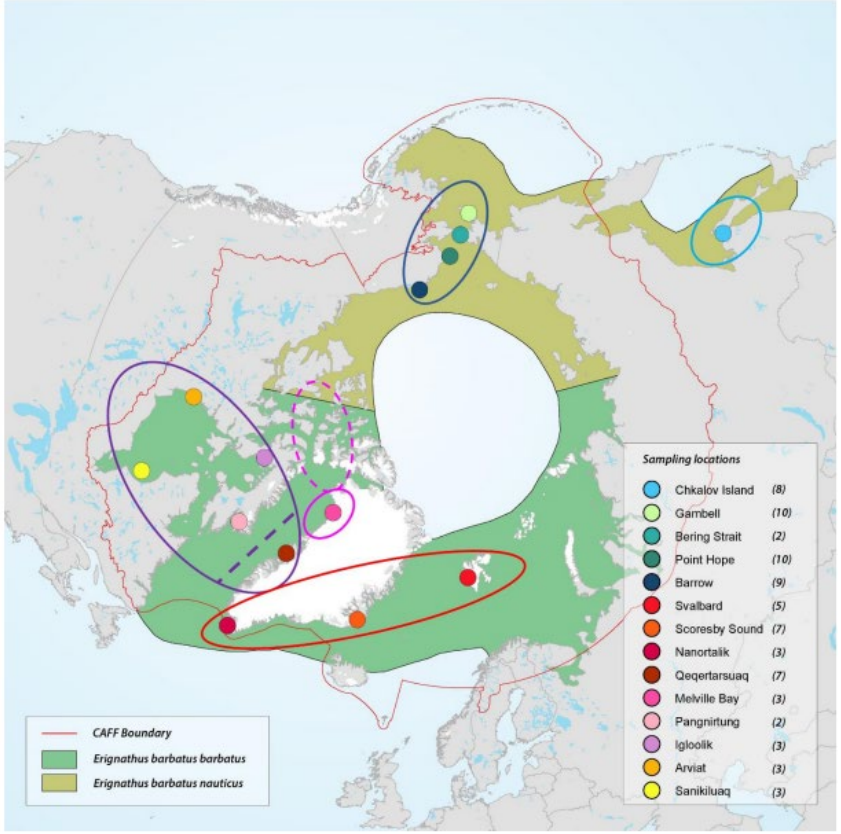
3.1.2. Response from SC/30

- *A NAMMCO Panarctic Bearded Seal Workshop (BSWS) was held online on 21-23 March 2023, co-chaired by Peter Boveng and Christian Lydersen.*

3.1 Bearded seal
Management areas

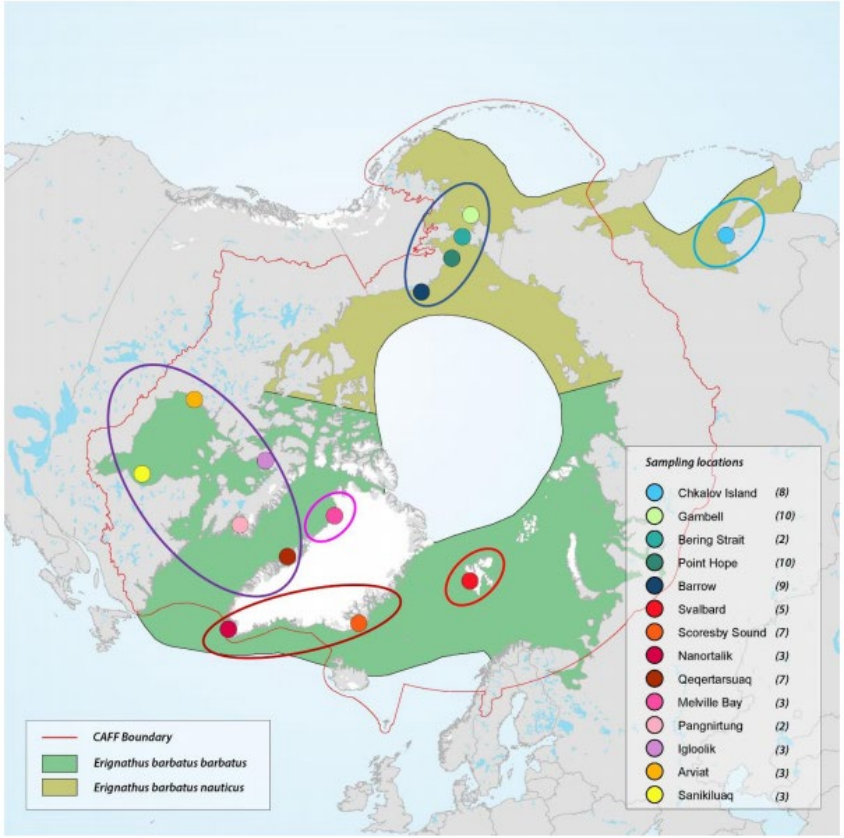
Preliminary results based on genetics

NAMMCO Panarctic Bearded Seal Workshop, March 2023



Preliminary results based on tracking, acoustics and other non-genetic studies

NAMMCO Panarctic Bearded Seal Workshop, March 2023



3.1 Bearded seal

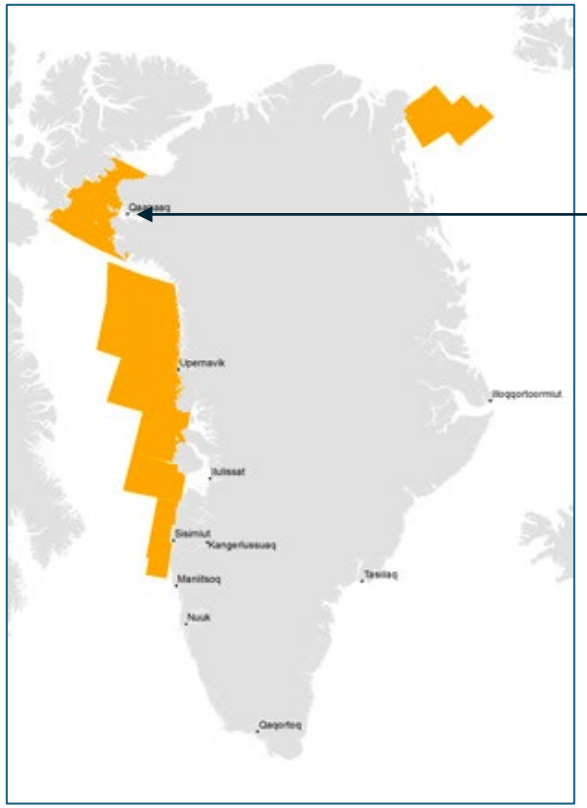
Surveys for narwhals and belugas

Winter surveys

Summer surveys

Remmesælen er let genkendelig på sin langstrakte krop. Foto: Aqqalu Rosing-Asvid.

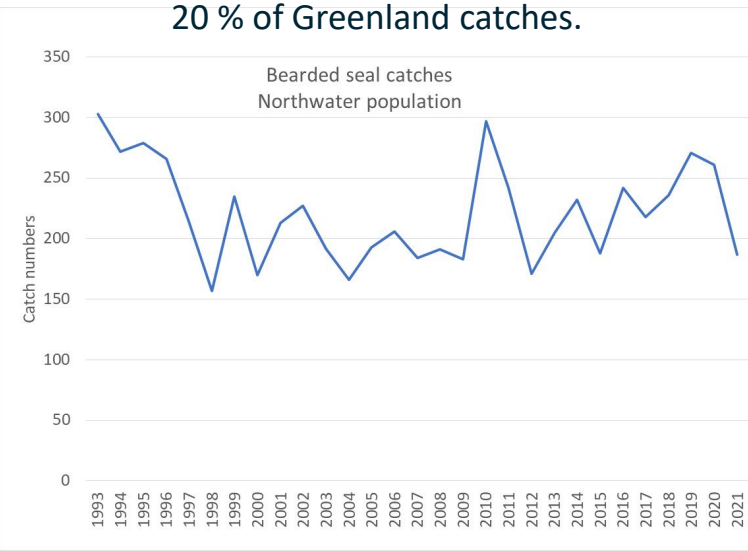
3.1 Bearded seal



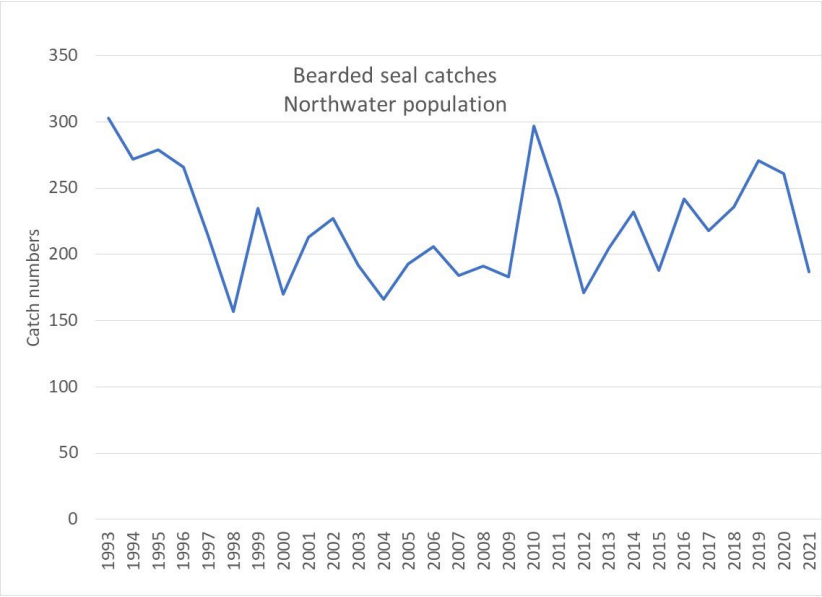
Winter surveys

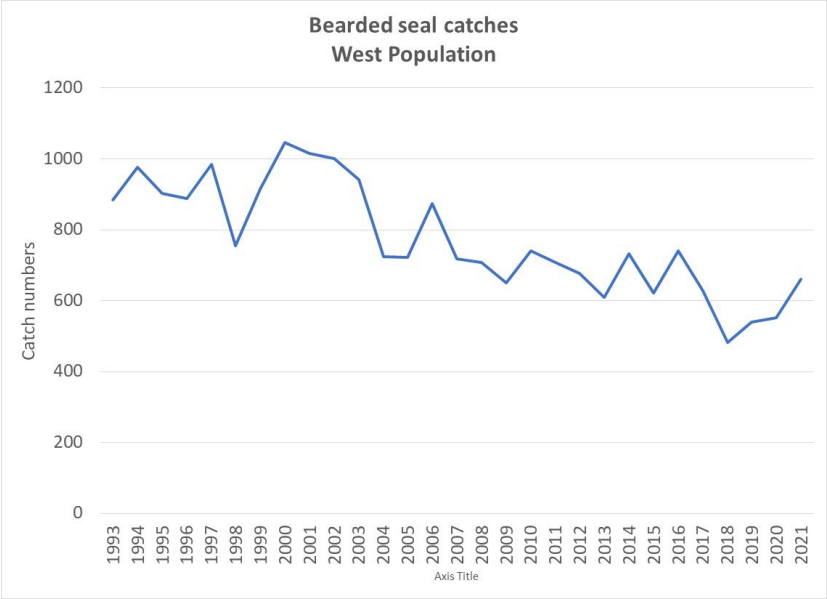
The North Water polynya has been surveyed a number of times (2009, 2010, 2014, 2018, 2020), and from this area abundance estimates have been published for the 2010 and 2014 surveys, both producing estimates of about 6,000 bearded seals.

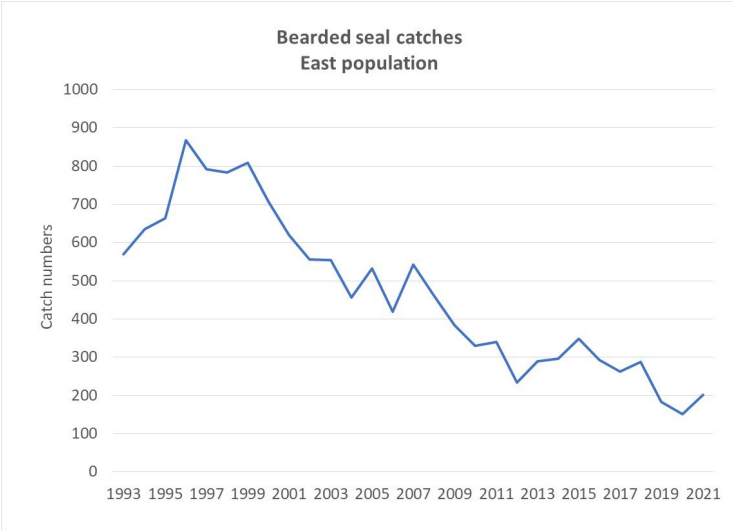
20 % of Greenland catches.



3.1 Bearded seal

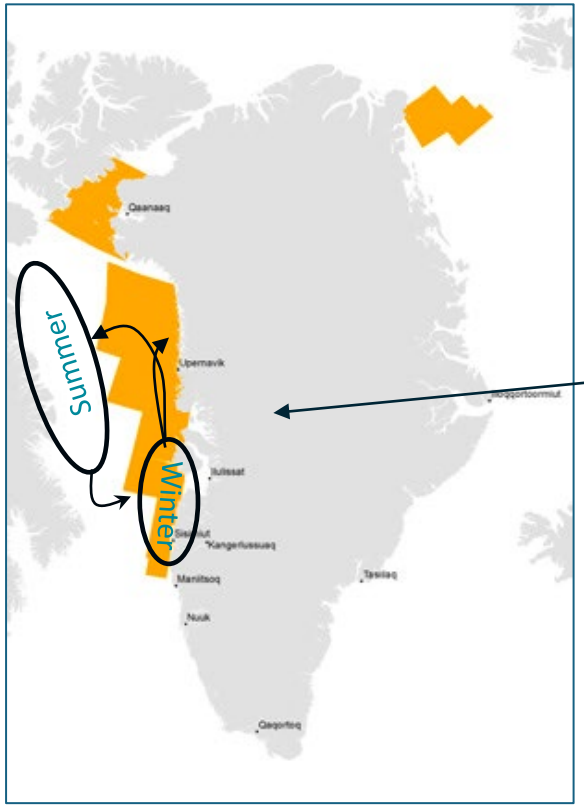






The annual kill of bearded seals in Svalbard is small and negligible: 2–34 catches/year between 2003 and 2022.

3.1 Bearded seal



Likely seasonal distribution

A tagging study in Baffin Bay is important in order to get the best obtainable correction factors for haul-out behavior and to test/prove whether Greenland and Canada share the same stock of bearded seals.

Winter surveys

3.1 Bearded seal

Assessments were not made due to lack of abundance data and some uncertainty about stock delineation.

3.1 Bearded seal

3.1.3 Recommendations for Research

- All Parties

1. Make efforts to collect more samples and increase coverage for the circumpolar genetic analyses.

2. Continue and expand screening for pathogens in bearded seals [concerns USA].

- Greenland

3. Obtain tracking data from bearded seals tagged in Greenland and East Baffin Island to get information on stock structures (prioritised by SC/30).

4. West Greenland and Melville Bay (key hunting areas) as major priority, to get abundance estimates.

3.2 Ringed seal

3.2.1 Active request

- ***R-2.3.3 (renewed 2023, ongoing)*** *to complete its review and assessment of ringed seals no later than 2024.*

3.2.2 Response from SC/30

- *A NAMMCO Working Group on Ringed Seals (RSWG) was held online on 16 and 27 November 2023 (Chair Rosing-Asvid).*

Terms of Reference:

i) To define the management areas based on genetics and/or telemetry if possible.

ii) To review which data (especially abundance, survey data and hunting statistics) are available in each management area.

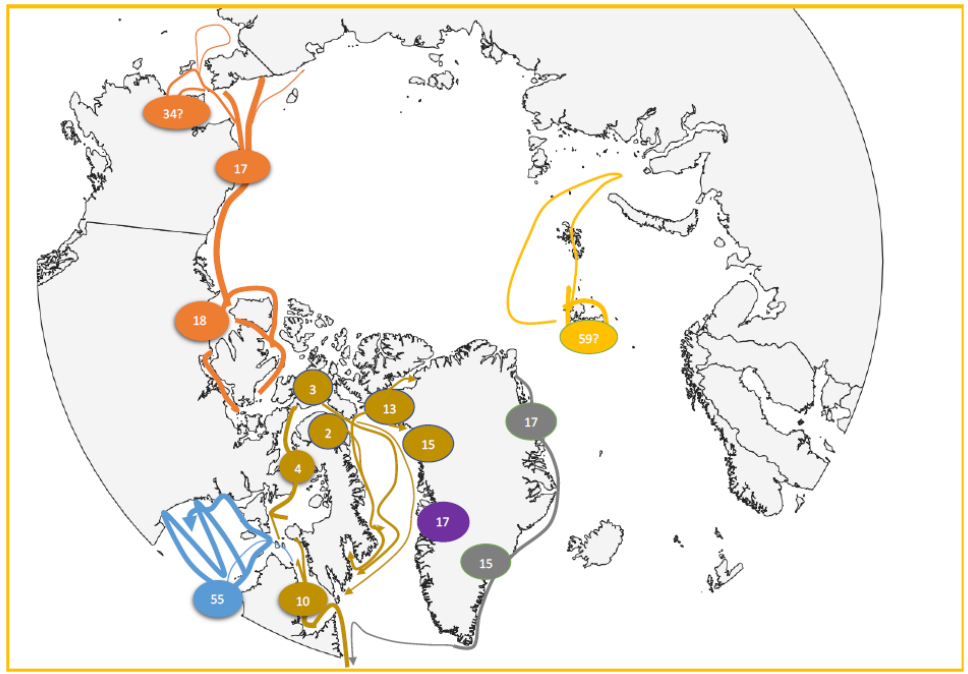
iii) To define whether there are any areas for which an assessment can be conducted.

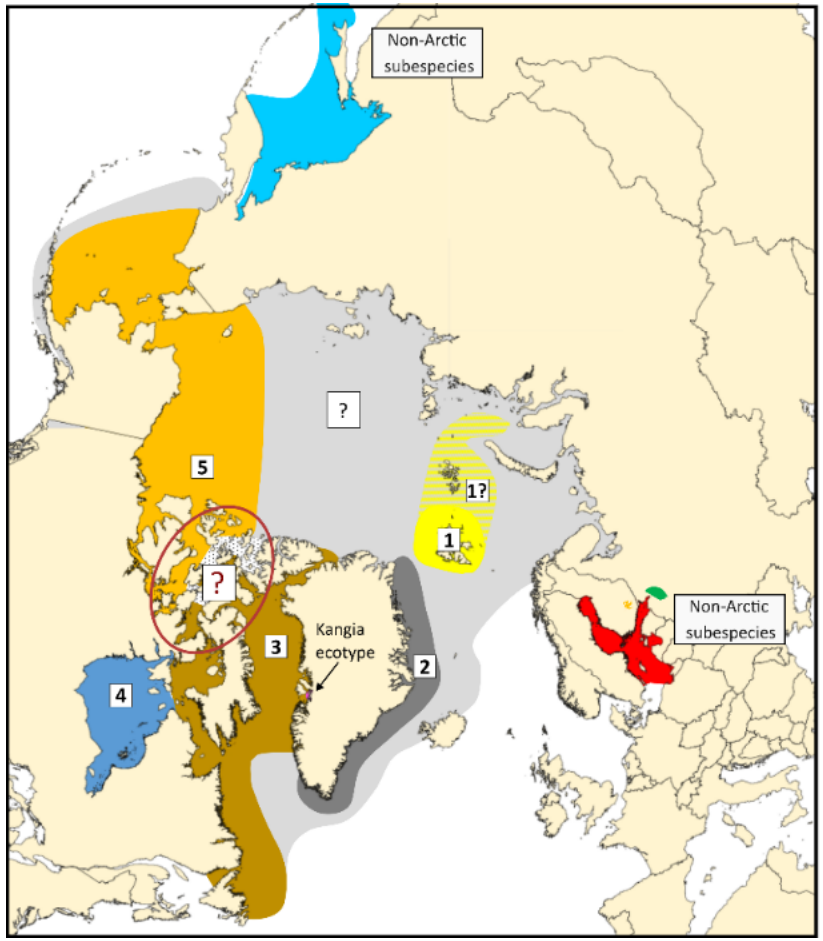
iv) To describe what kind of data that are lacking for management area with insufficient data.

v) To discuss whether there are alternative methods to carry out abundance surveys for assessing the stock status of ringed seals.

3.2 Ringed seal

i) To define the management areas based on genetics and/or telemetry if possible.

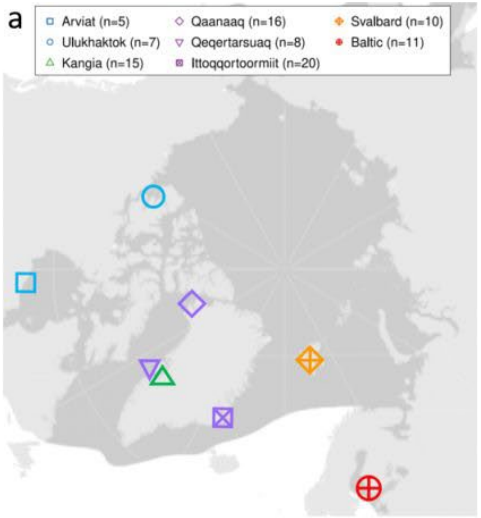


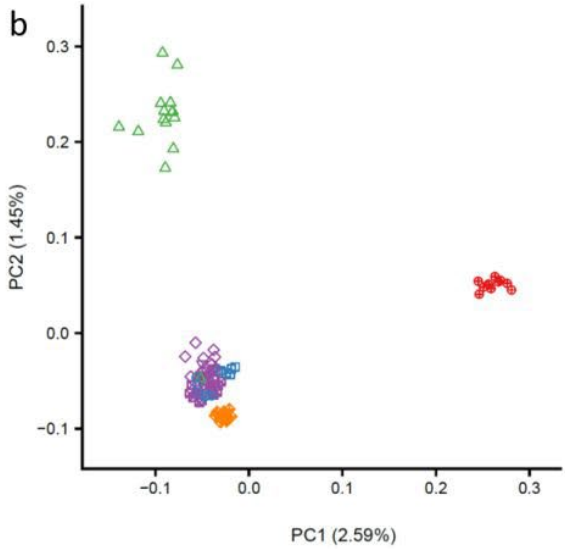


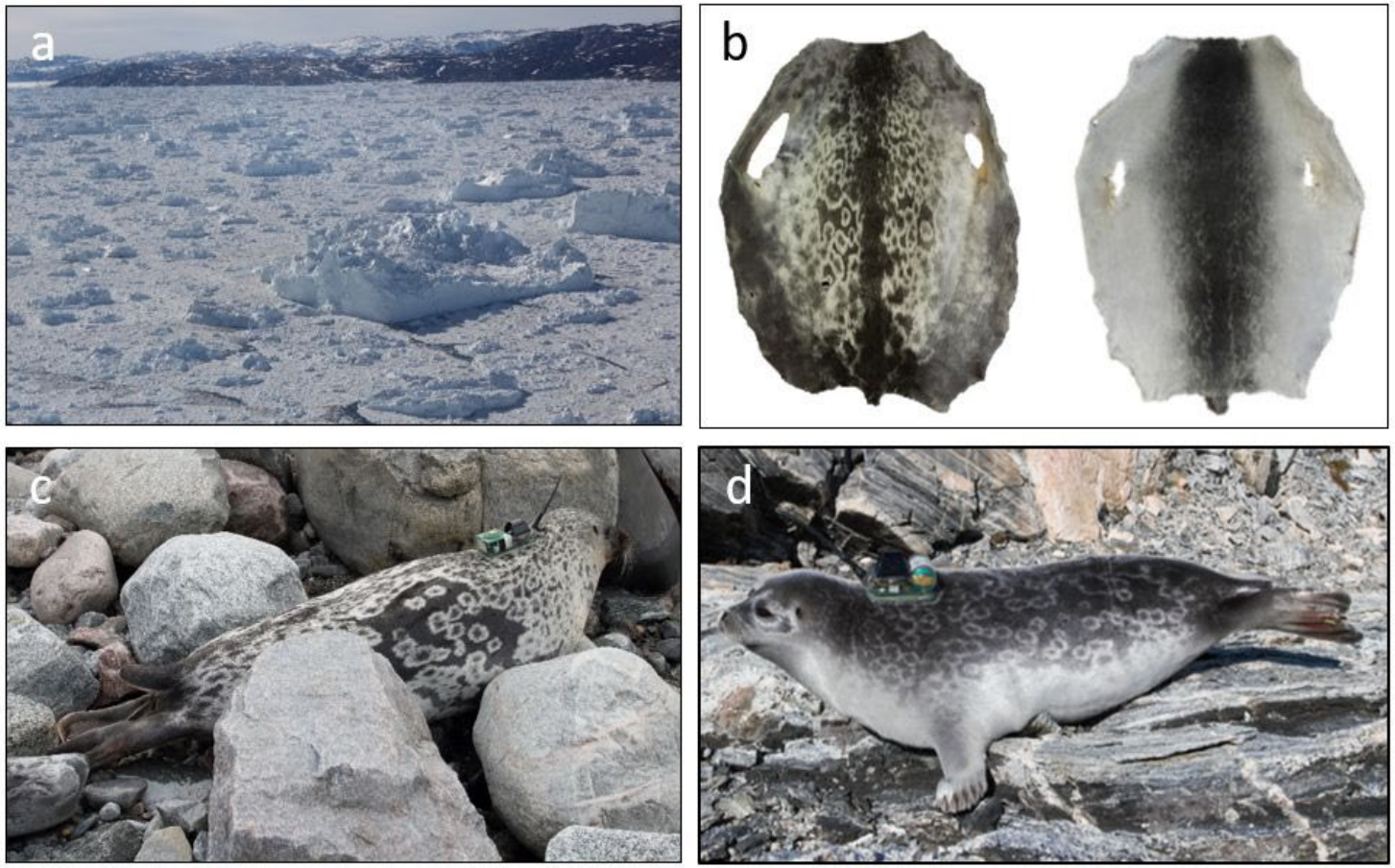
(1) Svalbard
(2) East Greenland
(3) West Greenland and East Canadian waters
(4) Hudson Bay
(5) West Canada, Beaufort Sea, Chukchi and Bering Seas
Kangia ecotype

3.2 Ringed seal

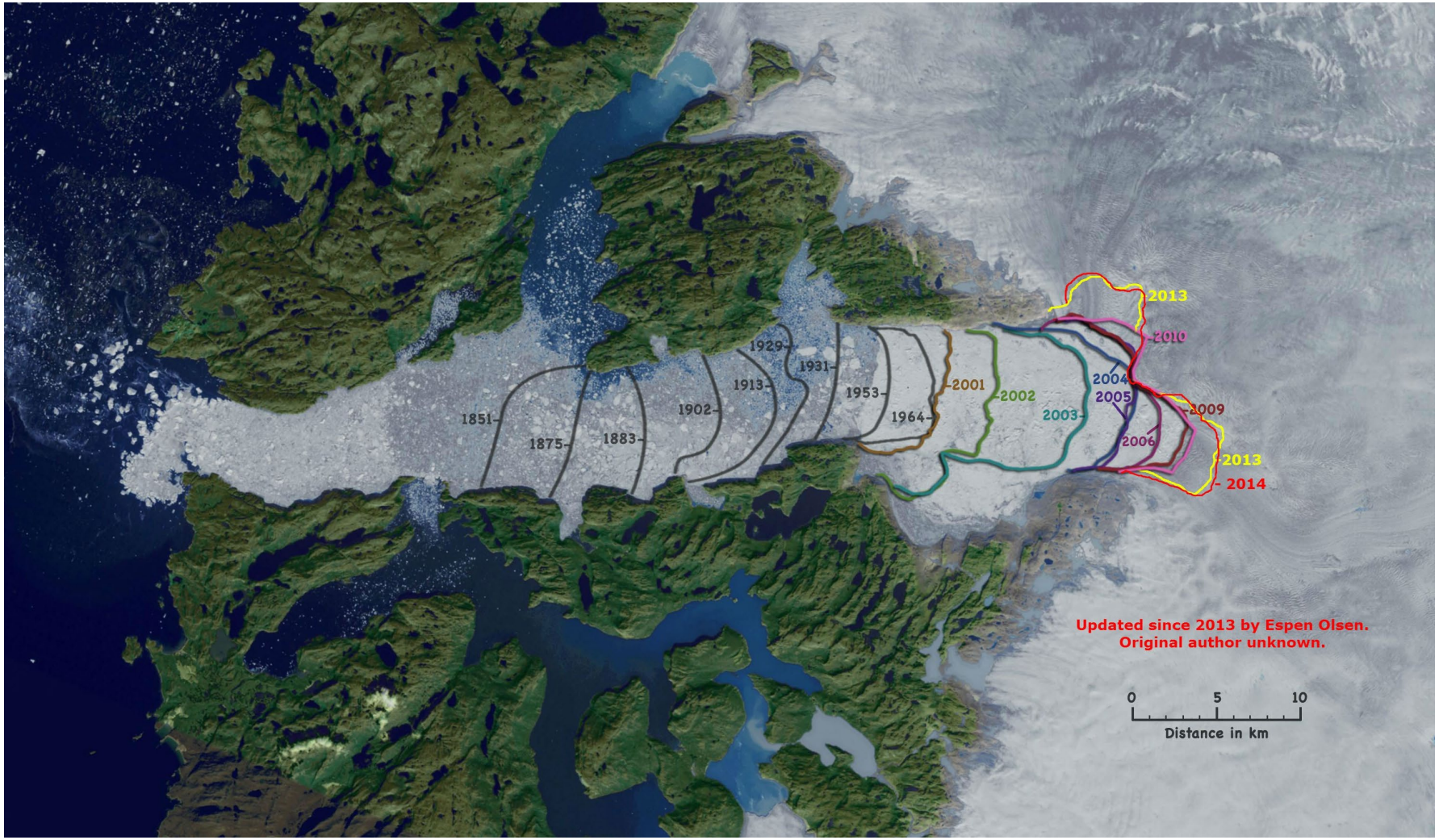
i) To define the management areas based on genetics and/or telemetry if possible.





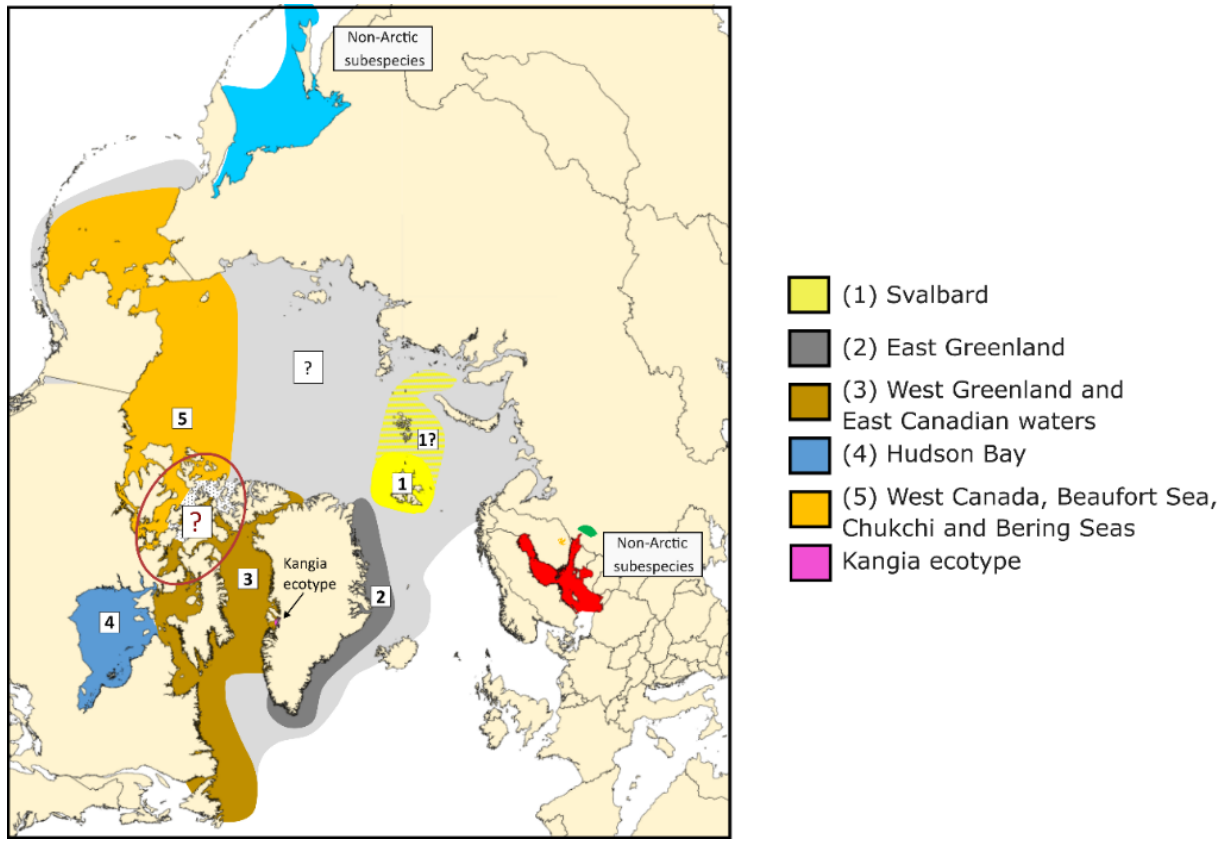


3.2 Ringed seal



3.2 Ringed seal

ii) To review which data (especially abundance, survey data and hunting statistics) are available in each management area



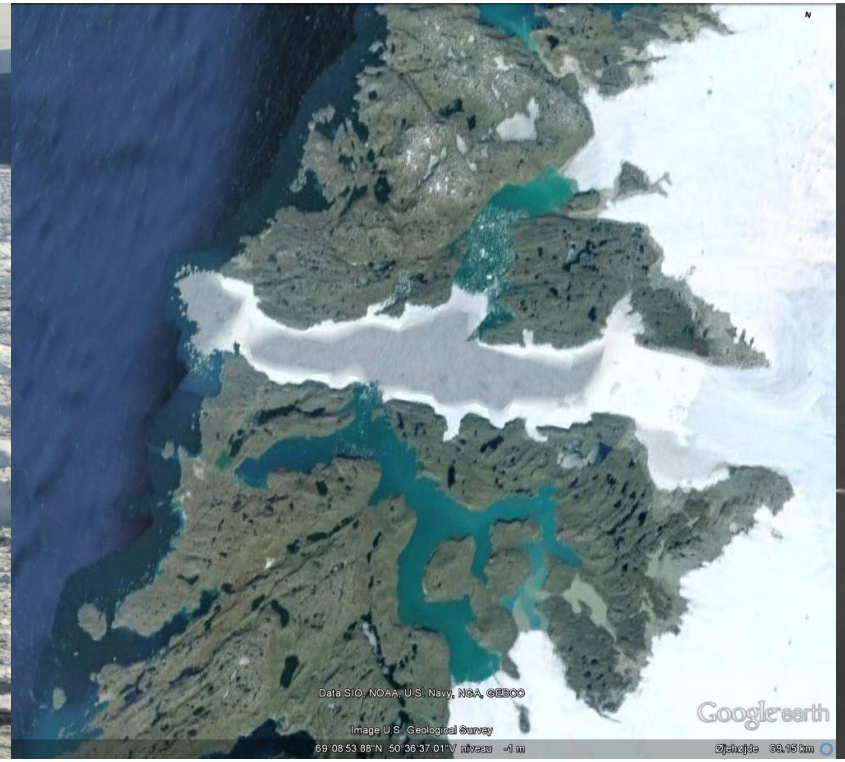
- Less than 100 ringed seals are killed annually in Svalbard and that is negligible
- We don't have any surveys that cover area 2 East Greenland or area 3, West Greenland and East Canada
- The Kangia seals were surveyed in 2018 ad estimated to be about 3.000 seals.
- The catch statistics do not distinguish between Arctic and Kangia ringed seals.

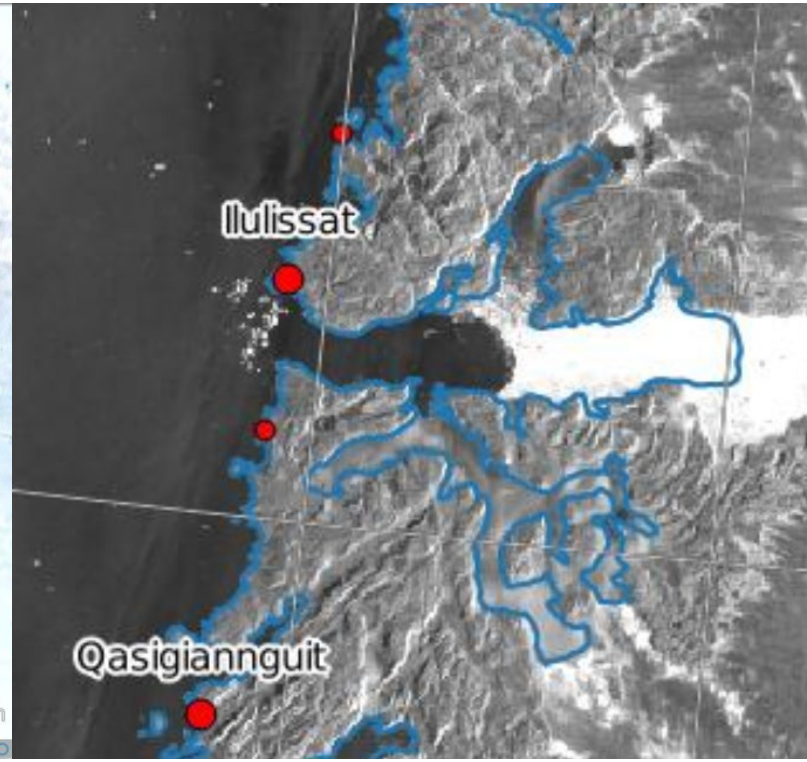
3.2 Ringed seal

Assessments were not carried out due to lack of abundance data.

3.2 Ringed seal

Kangia ringed seals

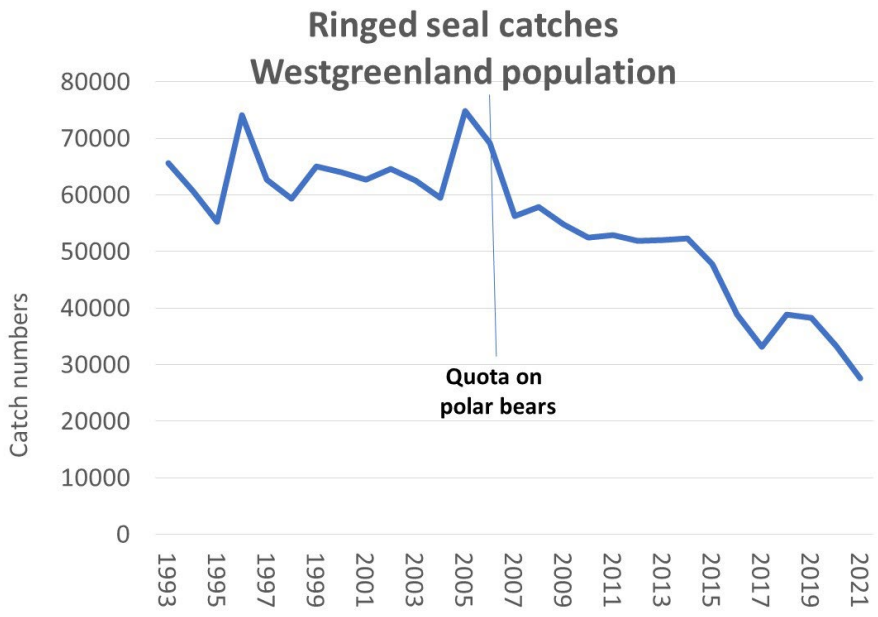


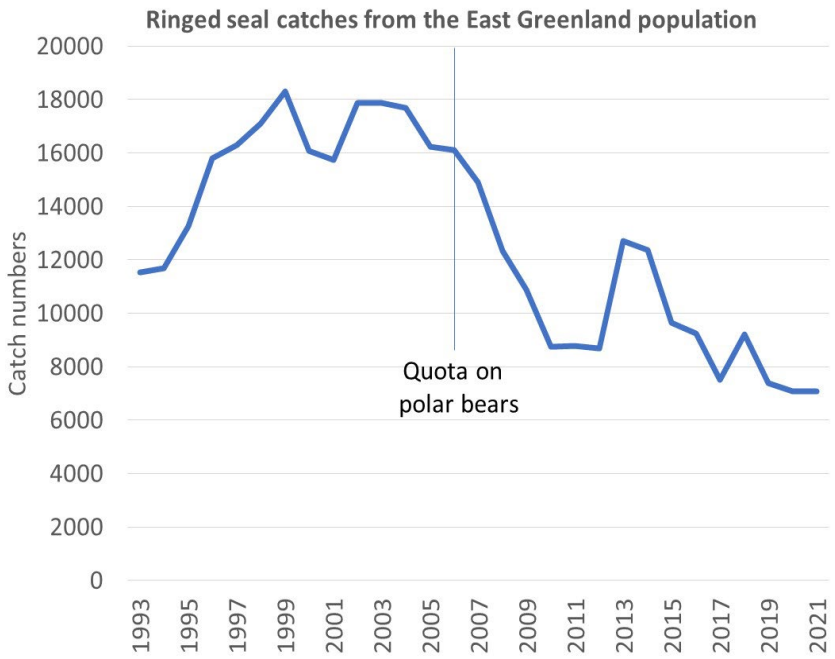


3.2 Ringed seal

ii) To review which data (especially abundance, survey data and hunting statistics) are available in each management area

- Likely contributors to the declining catches:
  - Changes in the way of living: More focus on fishery, fewer sledge dogs (less need for meat).
  - Changes in nature: More polar bears due to regulations, decreasing habitat due to global warming.





3.2 Ringed seal

3.2.3 Recommendations for Conservation and Management

- Greenland

5. Validate catch numbers (prioritised by SC/30).

3.2.4 Recommendations for Research

- All Parties

6. Use genetic and telemetry data only from adult ringed seals or nursing pups sampled during the breeding season for population structure studies (prioritised by SC/30).
7. Conduct partial surveys of ringed seals (as index) (prioritised by SC/30).
8. Ensure that efforts to determine population structure be continued (prioritised by SC/30).
9. Carry out new studies to gain more insight on correction factors for ringed seal abundance estimates.
10. Study the sensitivity of ringed seals to noise, particularly in areas of high ship traffic or tourism activities.

- Greenland

11. Carry out a new survey of the Kangia seals in spring 2024 to get a new abundance estimate (prioritised by SC/30).
12. Monitor selected fjord systems with and without catches to assess the effects of hunting, disturbance, and climate change (prioritised by SC/30).
13. Collect more telemetry and genetic data SW of Baffin Island and in Lancaster Sound to delineate the boundary between the MAs west of Greenland.
14. Carry out aerial surveys to estimate ringed seal abundances in East Greenland.

3.3 Coastal seals – Harbour seal and grey seal

3.3 Coastal seals – Harbour seal and grey seal

3.3.1 Active requests

- ***R-2.4.2*** *(**ongoing, 2019**) to provide a new assessment of grey seal stocks throughout the North Atlantic.*
- ***R-2.5.2*** *(**ongoing, 2014)** to conduct a formal assessment of the status of harbour seals in all NAMMCO areas as soon as feasible.*

3.3.2 Response from SC/30

- *The NAMMCO Working Group on Coastal Seals met at the Greenland Representation in Copenhagen (Denmark) in May 2023.*

Terms of Reference:

i) To provide a new assessment for grey and harbour seals throughout the North Atlantic.

ii) To provide guidelines for responsible removals from small coastal seal stocks.

3.3 Coastal seals – Harbour seal and grey seal

Terms of Reference

i) *To provide a new assessment for grey and harbour seals throughout the North Atlantic.*

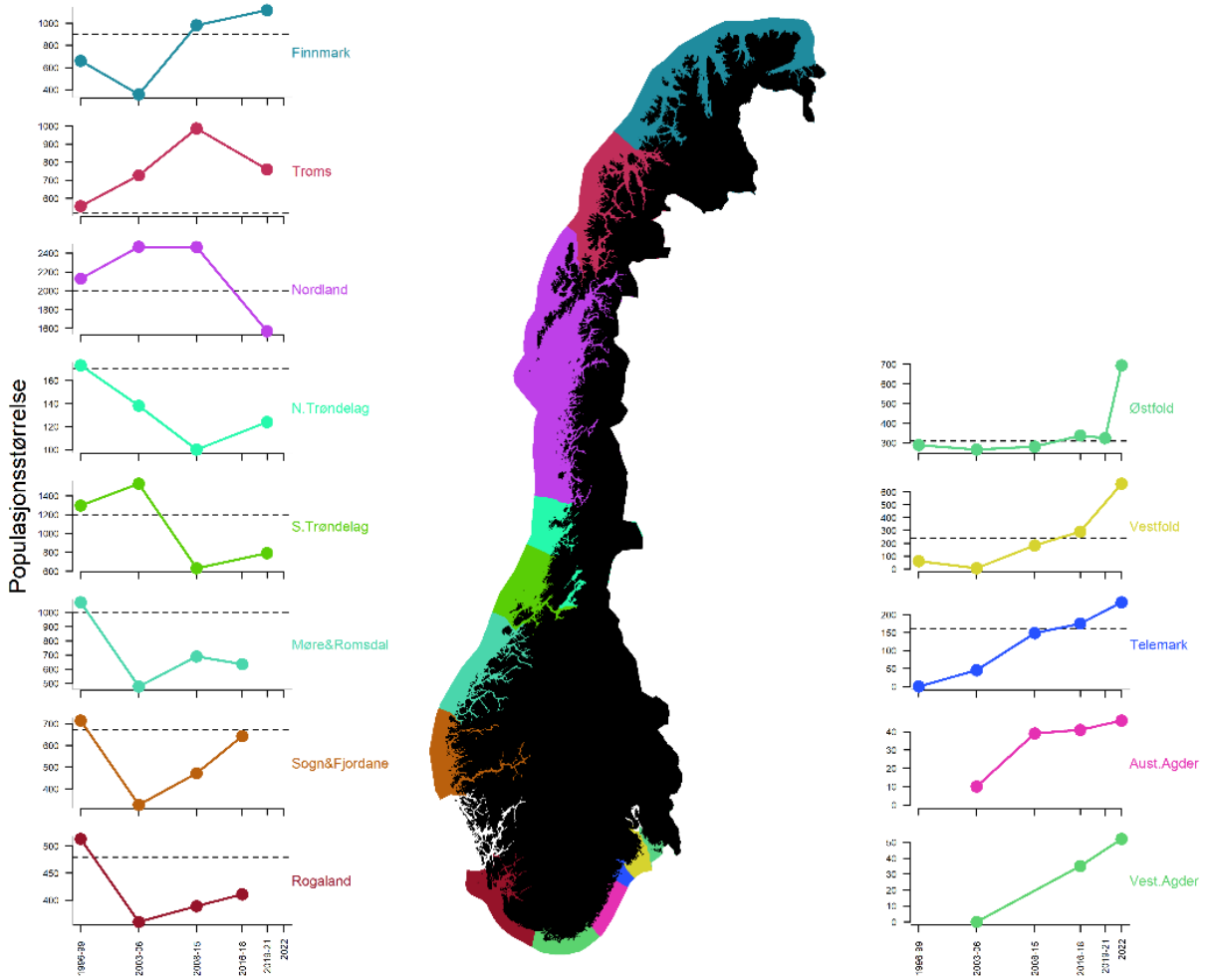
- Trends in abundance were examined for both species by the WG, but no assessment was conducted for either because of lack of necessary data.

3.3 Coastal seals

Harbour seal

Norway

- The current management units for Norwegian harbour seals are defined by county limits.
- However, tracking studies indicate that seals move between counties and countries (Norway, Sweden, and Denmark)
- This suggest a need to revise management units in Norwegian Skagerrak.
    - Hunting activities may involve seals from neighbouring counties or even from Sweden or Denmark.
- Results from genetic analyses of harbour seals along the Norwegian coast will be available in 2024.

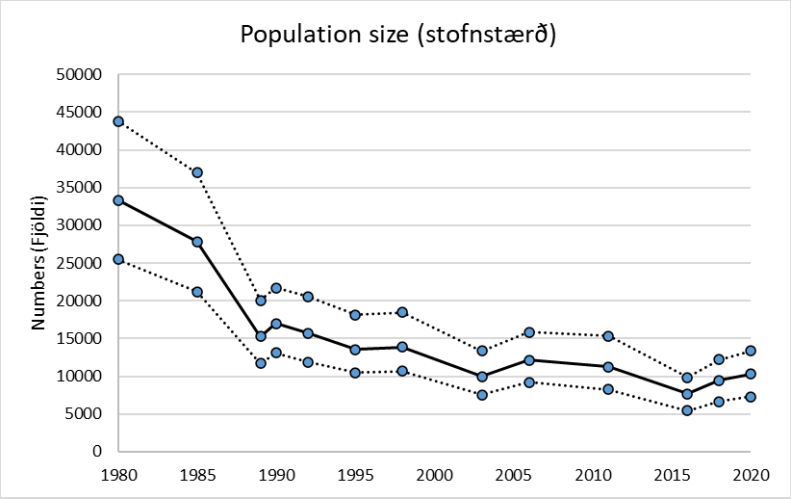


3.3 Coastal seals

Harbour seal

Iceland

- The population is defined as endangered on the national red list.
  - Current population size 10.300 animals
  - Management objective of 12.000 animals.
  - A more thorough management plan, which takes biological parameters and updated research-based knowledge into consideration, is underway.
  - Scarce knowledge on population parameters
- Efforts to increase monitoring of by-catch through inspectors
  - Closure of areas with high by-catch has been tested, results are underway.



3.3 Coastal seals

Harbour seal

Greenland

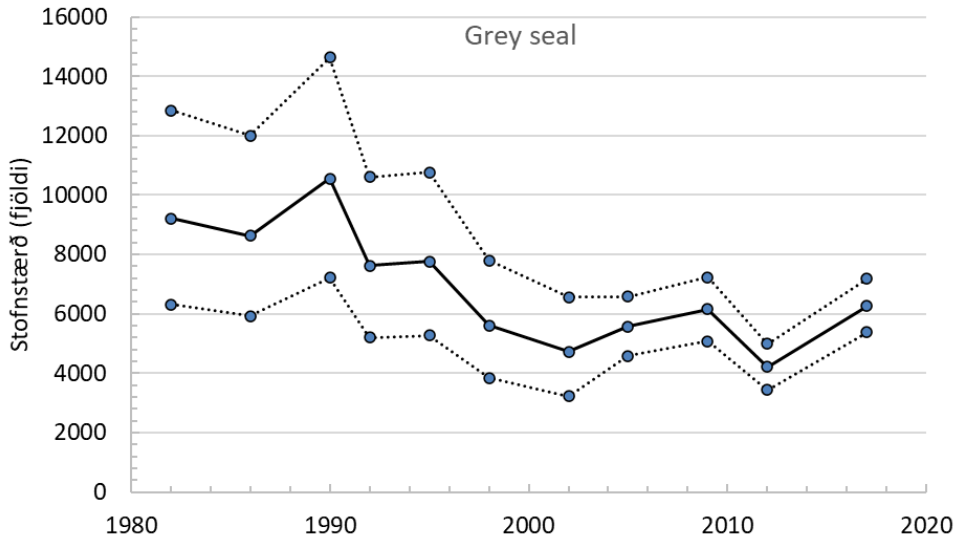
- Harbour seals were hunted to near extinction in West Greenland. Hunting ban implemented in December 2010.
- Since then, only three small populations have been identified in places where the seals occur during breeding and moulting periods.
- Sporadic observations of harbour seals in other areas could indicate that there might be additional unknown small populations
- Update from SC 30: Harbour seal populations in Greenland are currently being monitored, and hunters are being interviewed to report by-catch.
    - These interviews may also help identify breeding areas not previously known to scientists.

3.3 Coastal seals

Grey seal

Iceland

- The population is defined as vulnerable on the national red list.
  - Population size 6.300 animals in 2017
  - New estimate underway 2024
  - Management objective of 4.100 animals.
- A more thorough management plan, which takes biological parameters and updated research-based knowledge into consideration, is underway.
- Scarce knowledge on population parameters
- Efforts to increase monitoring of by-catch through inspectors
  - Closure of areas with high by-catch has been tested, results are underway.



3.3 Coastal seals

Grey seal

Norway

- By-catch in the monkfish fishery is considered a significant driver of declines in middle Norway (also the main area for this fishery).
- A grey seal population model incorporating by-catch estimates and utilising catch data on monkfish as a driver is being developed.

Faroe Islands

- Efforts made to estimate a minimum population size based on counts from 2018, 2019 and 2021 (minimum 661 animals).
- Current plans to develop and implement a monitoring program and a management plan.

3.3 Coastal seals – Harbour seal and grey seal

Terms of Reference

ii) *To provide guidelines for responsible removals from small coastal seal stocks.*

- The WG noted that the NAMMCO Council 30, adopted 8 principles for the precautionary management of marine mammal stocks within the remit of NAMMCO. According to principles 2 and 3, stocks should be at least at 60% of their equilibrium level, or increasing, for a hunt to be allowed.
- The WG acknowledged that the equilibrium abundance is unknown and currently impossible to determine for many seal stocks in the NAMMCO countries, due to the lack of long-term records or reliable historical information.

- The SC **recommended** that the ToRs should incorporate a specific point in the future regarding the determination of sustainable levels of removals.

3.3 Coastal seals – Harbour seal and grey seal

3.3.3 Recommendations for Conservation and Management

The WG put forward 10 Recommendations for conservation and management (Recommendations 15-24) with implications for the parties which are listed in the agenda (APPENDIX TO MCSW AGENDA: SC/30 RECOMMENDATIONS). These recommendations were all endorsed by SC 30.

3.3.3 Recommendations for Research

The WG put forward 13 Recommendations for research (Recommendations 25-37) with implications for the parties which are listed in the agenda (APPENDIX TO MCSW AGENDA: SC/30 RECOMMENDATIONS). These recommendations were all endorsed by SC 30. The SC 30 prioritized the following recommendations for research:

- **Recommendations for Research to All Parties:** To estimate sustainable removal levels for each stock of grey and harbour seals.
- **Recommendations for Research to Iceland:** To continue efforts to develop population models for both species, assess whether data on biological parameters (e.g., historical population size, changes in carrying capacity over time) from other areas can be used for this, and collect data on biological parameters from Icelandic seals to the extent that it is necessary.

3.3 Coastal seals – Harbour seal and grey seal

3.3.3 Recommendations for Conservation and Management

- All Parties

15. Complete an assessment for coastal seals in each of the NAMMCO member countries as soon as the necessary data are available.

- Faroe Islands

16. Determine management objectives for the grey seal population in line with the NAMMCO precautionary principles.

- Greenland

17. According to NAMMCO principles, harbour seal stocks should be at least at 60% of the equilibrium level before any hunting can take place. As the equilibrium level is unknown for all Greenland populations the MSY-level could be used, as it is a close proxy to 60% that can be achieved in a shorter term than the equilibrium level.

18. If a harbour seal colony is the closest neighbour to a formerly significant but now abandoned breeding/moulting site, no hunting should be allowed until after the neighbouring breeding/moulting site has been recolonised and an assessment can show a sustainable catch.

19 All known harbour seal populations should be allowed to increase.

3.3 Coastal seals – Harbour seal and grey seal

3.3.3 Recommendations for Conservation and Management

- Iceland

20. Put forward a management plan for both harbour and grey seals, which should include: Re-evaluation of the target population level objective with the new level being based on biological criteria; When setting catch levels, consider total anthropogenic removals (including direct hunt and by-catch); Biennial surveys for both species.

21. Make legislation on seal hunting species-specific.

22. Continue efforts to reduce by-catch.

23. Further develop mitigation measures to reduce anthropogenic disturbances from tourists on harbour seals. Consider restricting access for people to important areas for harbour seals during the breeding period.

- Norway

24. Management plans should take total anthropogenic removals into account.

3.3 Coastal seals – Harbour seal and grey seal

3.3.4 Recommendations for Research

- All Parties

25. Support the development of a Europe wide population model for grey seals through data provision and cooperation.

26. Support a joint effort to deliver samples for genetic analysis of grey seals to improve knowledge on population structure and status.

- Faroe Islands

27. Continue the summer counts for abundance estimations of grey seals, and conduct monitoring of haul-out and breeding sites as well as additional tracking.

- Greenland

28. Continue the monitoring of the three known harbour seal populations, together with local hunters.

29. Regularly check on previously used harbour seal breeding/moulting sites.

3.3 Coastal seals – Harbour seal and grey seal

3.3.4 Recommendations for Research

- Iceland

30. Continue efforts to develop population models for both species, assess whether data on biological parameters (e.g., historical population size, changes in carrying capacity over time) from other areas can be used for this, and collect data on biological parameters from Icelandic seals to the extent that it is necessary *(prioritised by SC/30)*.

31. Continue investigating habitat use of both species using satellite telemetry to help evaluate co-occurrence with fisheries and risk of by-catch.

32. Carry out biannual surveys of grey seals.

- Norway

33. Improve knowledge on by-catches by collecting data on species, genetics, and age by collecting jaws from by-caught seals in the reference fleet.

34. Collect data on by-catches in recreational fisheries.

35. Conduct further tracking studies of coastal seals along the Norwegian coast, to obtain better knowledge on seal movements.

36. Continue efforts to implement the Remote Electronic Monitoring (REM) system on Norwegian vessels to estimate drop-out rates and supplement existing by-catch data.

37. Complete the analysis of DNA samples from harbour seal pups in Norway to help determine stock structure and propose more scientifically based management units.

3.3 Coastal seals – Harbour seal and grey seal

3.3.5 Proposal for rephrasing Request R-2.4.2, so it is aligned with R-2.5.2

- ***R-2.4.2 (ongoing, 2019)*** *to provide a new assessment of grey seal stocks throughout the North Atlantic.*
- ***R-2.5.2 (ongoing, 2014)*** *to conduct a formal assessment of the status of harbour seals in all NAMMCO areas as soon as feasible.*

The SC recommends that R-2.4.2 be reformulated to match the language of R-2.5.2 and specify that North Atlantic refers to NAMMCO areas in this context, e.g.:

> ***R-2.4.2 (ongoing, 2019)*** *to provide a new assessment of grey seal stocks ~~throughout the North Atlantic~~ in all NAMMCO areas.*

3.4 Harp and hooded seals

3.4.1 Active requests:

- ***R-2.1.4 (2003, standing)*** *to regularly update the stock status of North Atlantic harp and hooded seals as new information becomes available.*
- ***R-2.1.9 (revised 2022, ongoing)*** *to investigate possible reasons for the apparent decline of Greenland Sea stock of hooded seals; and assess the status of the stock.*
- ***R-2.1.10 (revised 2019, standing)*** *to provide advice on the total allowable catches for the management of harp seals.*

3.4.2 Response from SC/30

- *The Benchmark Workshop for Harp & Hooded Seals, May 22-26, 2023, Copenhagen.*
- *The Joint ICES/NAFO/NAMMCO Working Group on Harp and Hooded Seals (WGHARP), August 21–25, 2023, Tromsø.*

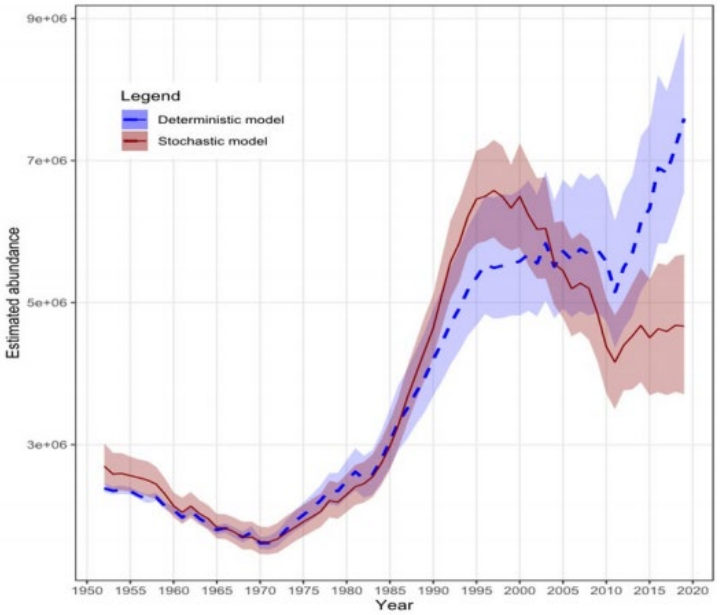
3.4 Harp and hooded seals

- **The Greenland Sea**
  - The 2022 Greenland Sea pup production estimate for **harp seals** was 92,769 (CV = 20.2%), which is significantly higher than the 2018 estimate but similar to that based on the 2012 survey.
  - The **hooded seal** pup production estimate for 2022 was 13,509 (CV=12.9%), slightly but not significantly higher than the 2018 estimate.
  - The WG concluded that the current version of the assessment model could not be used to explore harvest scenarios. Other methods, however, might be used to inform sustainable harvest levels until the model has been further improved.
  - The SC agreed that the reasons behind the decline in **hooded seals** in the Greenland Seas remain unresolved. Pollutants and predators might be contributors, but this need to be confirmed with data.

3.4 Harp and hooded seals

Harp seal

- **The Northwest Atlantic**
  - A new and likely improved model was fitted to the same data on pup production, annual fecundity, human removals, and environmental conditions used in the previous assessment to produce annual estimates of pup production and total abundance from 1952–2019.
  - The new model estimates were similar to the previous model through 1990 but then diverged, indicating that the population peaked in 1997 at 6.6 million animals, almost a decade earlier than modelled in previous assessments.
  - An abundance estimate of 4.7 (3.7–5.7) million was reached in 2019, compared to an estimate of 7.6 (6.6–8.8) million in the last assessment with the old model.



3.4 Harp and hooded seals

3.4.3 Recommendations for Research

All Parties

38. Efforts should continue to obtain reproductive samples. These are required for use in the population model.

Norway

39. Tag more harp and hooded seals in the Greenland Sea and the Denmark Strait, and to reanalyse satellite tagging data from the past for both species (prioritised by SC/30).

40. New pup aerial survey of harp seals in the White Sea (Action by 2024).

41. Satellite imaging studies should be undertaken of the White Sea\Barents Sea harp seal population during the pupping season, to suggest possible re-distribution of the seals outside traditional whelping patches (Action by 2025).

3.5 Walrus

- The mining activity in the Wolstenholme Fjord (Northwest Greenland) is currently on hold and, therefore, not impacting walruses in the area.
- There is an ongoing telemetry study and a camera collecting data in the North Water area.
- The analysis of the survey conducted in 2022 in West Greenland is pending and a new survey in the North Water area is scheduled for spring 2025.
- In Norway, the analysis of camera surveillance and tracking data is underway, and some of these results will be presented at SC/31.

3.5 Walrus

3.5.1 Recommendations for Conservation and Management

- Greenland

42. Consider the advice from the 2018 assessment valid until a new assessment is carried out in 2026.

- **Advice endorsed by NAMMCO 27**
  - Total allowable landings: Northwest 79; West 74; East 17
  - Protect haul-out sites in regular use through creating an exclusion zone
  - Establish dialogue between managers and hunters on methods for collecting S&L data
  - Report struck and lost in the “Særmeldingsskema”

4. Members' responses to Proposals

Proposals forwarded to Greenland:

- Walrus
  - Research: 4 (updates provided)