



CONTRIBUTING TO A SUSTAINABLE NORTH

**25 years of Regional Marine Mammal
Management in the North Atlantic**



NAMMCO?

- IGO, RFB
- Parties: FO, GL, IS, NO – all Arctic countries
- Conservation, management and study of marine mammals
- All cetacean and pinniped species
- No «indigenous»
- Advisory mandate



Sustainability – Responsibility - Transparency



NAMMMCO?

Parties:

- Recognising
 - ✓ The rights, needs and duties of coastal communities
- Have committed to the
 - ✓ **Effective Conservation** of MM
 - ✓ **Sustainable and responsible** utilisation of MM
 - ✓ Management decisions based on best available scientific advice, local knowledge and tech. development.
 - ✓ *Ecosystem-based approach*



Why NAMMCO?

Parties needed an international forum for cooperating on

- ✓ The management and conservation of small cetaceans
- ✓ The management and conservation of marine mammals other than cetaceans, such as seals and walrus
- ✓ The science-based management and conservation of large whales
- ✓ Addressing practical issues of hunting, welfare and control

 Ensuring the sustainable and responsible use of MM resources



NAMMCO's role

- Assess regularly the conservation status of marine mammal stocks
 - From endangered to thriving
- Define sustainable removals
 - Setting quota, taking other pressures into account
- Underpin responsible hunting
 - Increase hunters safety & animal welfare , through improvement of hunting methods & hunters' training (> IDR, < TTD & SLR)
- Control and monitor hunting activities
 - Compliance with national regulations & NAMMCO's advice

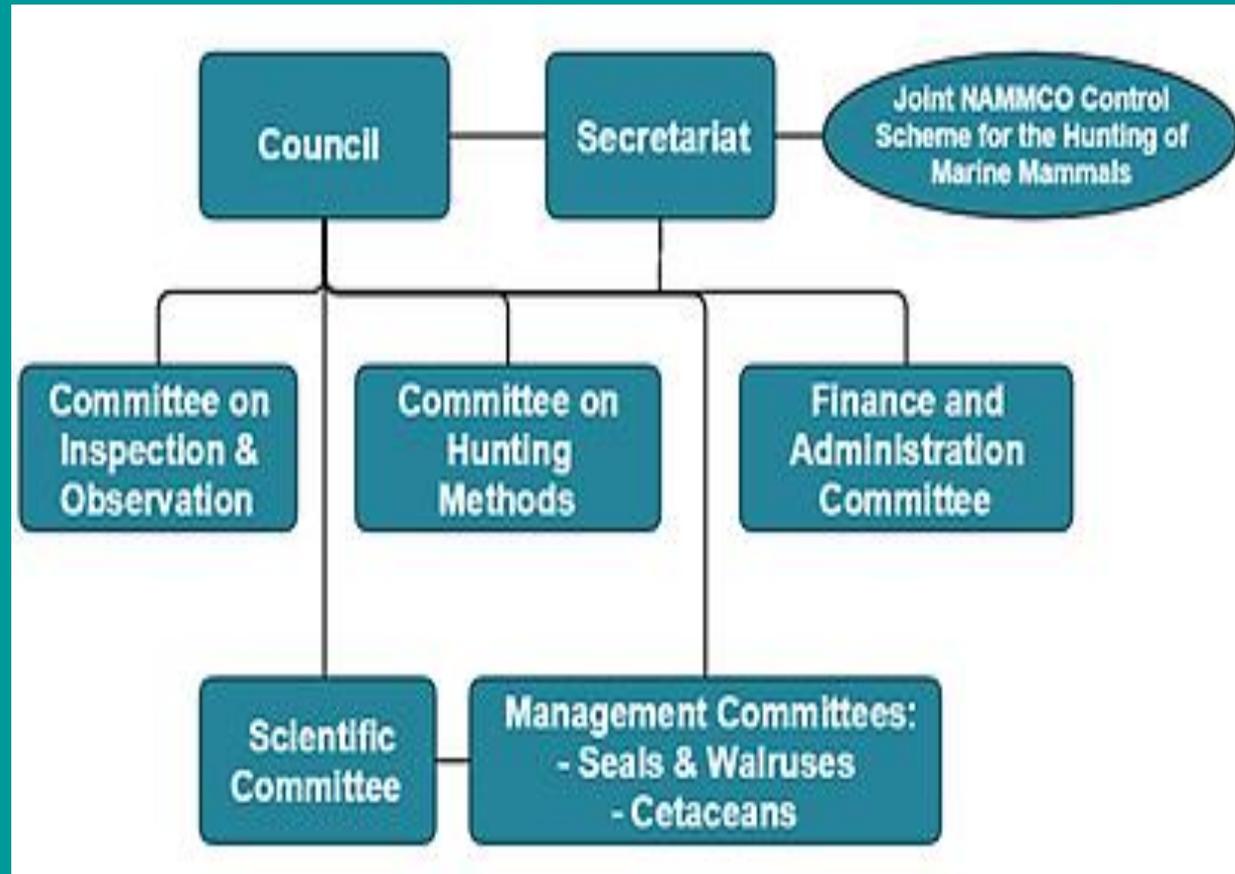


Structure of NAMMCO

Advices from SC & CHM

- WG/EG advices
- Cooperation

New WG on BYCELS



**For increasing competence & transparency:
WG/EG must include EE & have often external chairs**



Competence & Transparency

- **Strengthening intern and extern cooperation and including “local (TEK)” organisations**
 - SC: JCNB, IWC, ICES, NAFO, AC WGs, CAFF
 - SC: Global perspective
 - Global review of monodontids
 - Russia, Canada, USA, Greenland
 - NTI, NWMB, Gov’t of Nunavut, Inuvialuit Settlement Area, etc.
 - Surveys: SCANS-CODA/TNASS/Canada/USA
 - Workshop at SMM: “Cetacean abundance and distribution in the NA” (NAMMCO, EU (SCANS-III), Ireland (ObSERVE), Canada, USA)
 - CHM: Review of hunting methods & training, incl. NAMMCO, Japan, Russia, Alaska, Makah & Canada
- **Performance Review** (FAO, IWC, NAFO in panel review)



Scientific Committee

Coordination of cetacean surveys Thematic WGs / Symposium

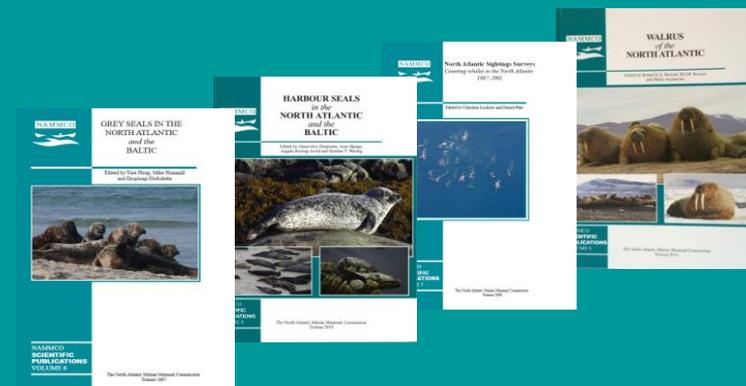
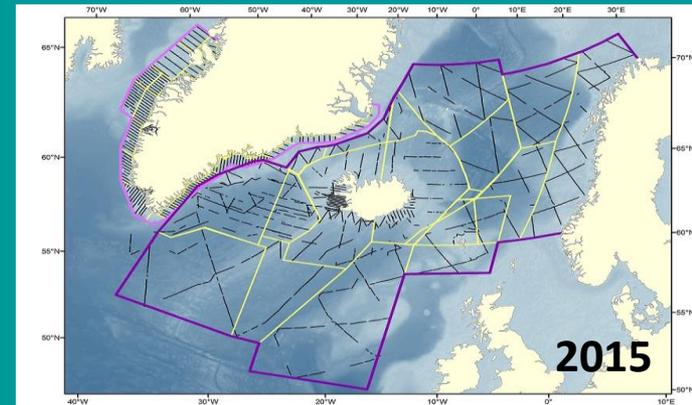
- ...
- Anthropogenic disturbances
- Population abundance
- By-catch

Species/stock specific WGs

- ...
- Harbour porpoise WG

NAMMCO Scientific Publications

1 – 10





Achievements

[23 MM: 7 pinnipeds, 16 cetaceans]

- ✓ NASS series: 1987, 1989, 1995, 2001, 2007, 2015 – improved standards
- ✓ Conservation status of most hunted stocks is regularly reviewed
 - ✓ Quota proposed and implemented for decreasing stocks
- ✓ Still missing some stocks ringed seals, bearded seals, FO grey seals, SV ringed seals
- ✓ Hunting stocks are either stable or increasing
ex. Grey (IS, NO) and harbour seals (IS)

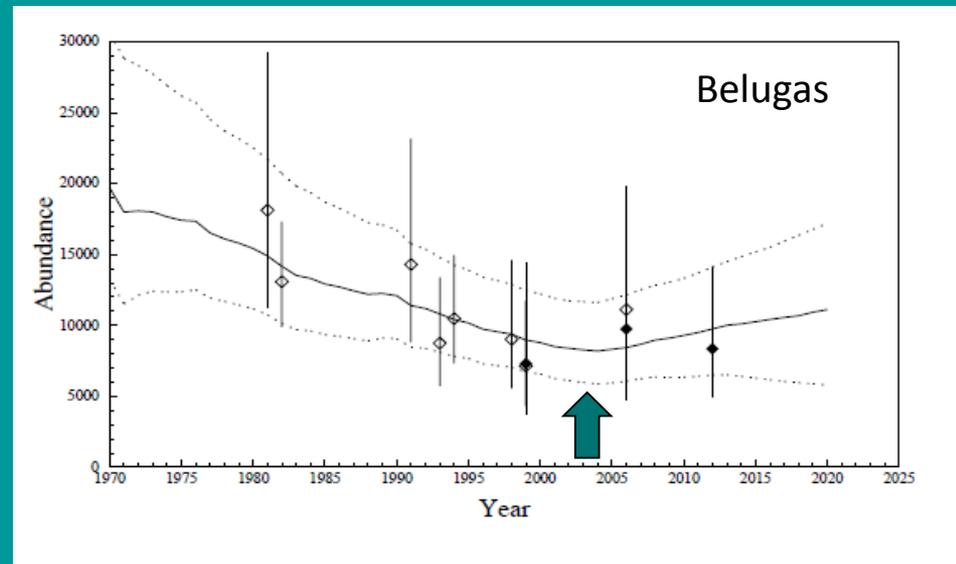
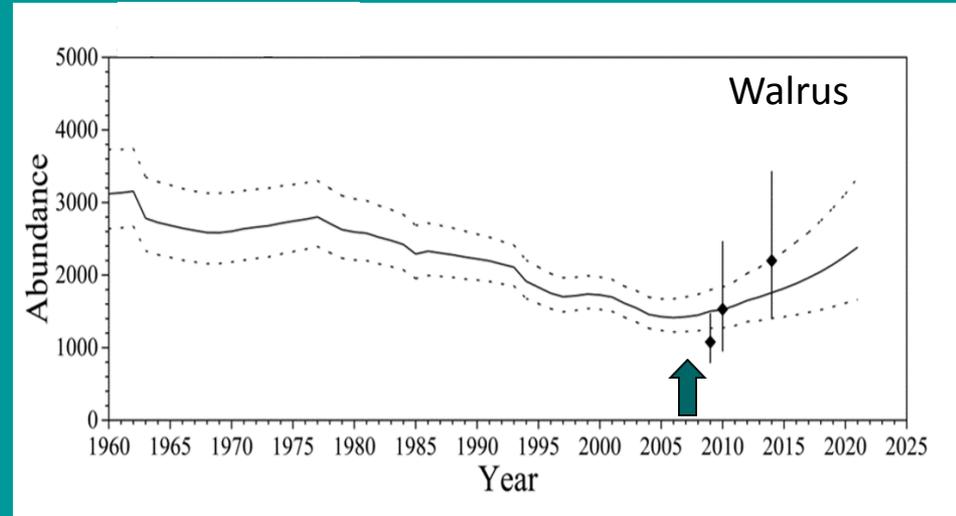
Some management successes 😊



Advice followed

➤ Hunting: “Easier threat”

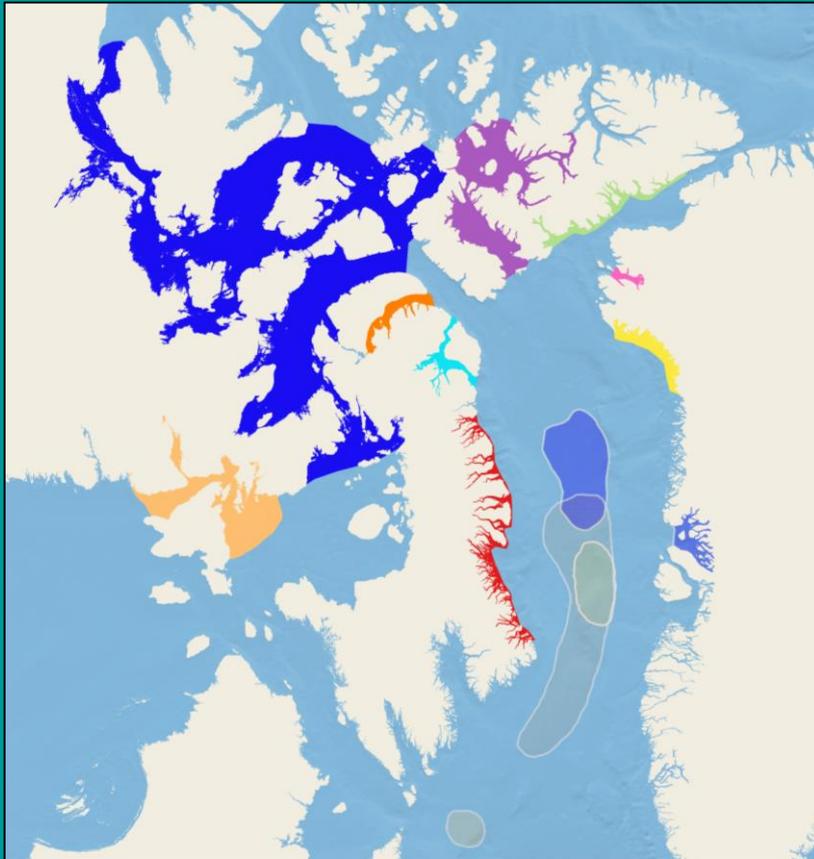
- Quantifiable
 - Abundance (surveys)
 - Regular assessments (biological parameters, population modelling, etc.)
 - Catch reporting
- Can be acted upon
 - Quotas





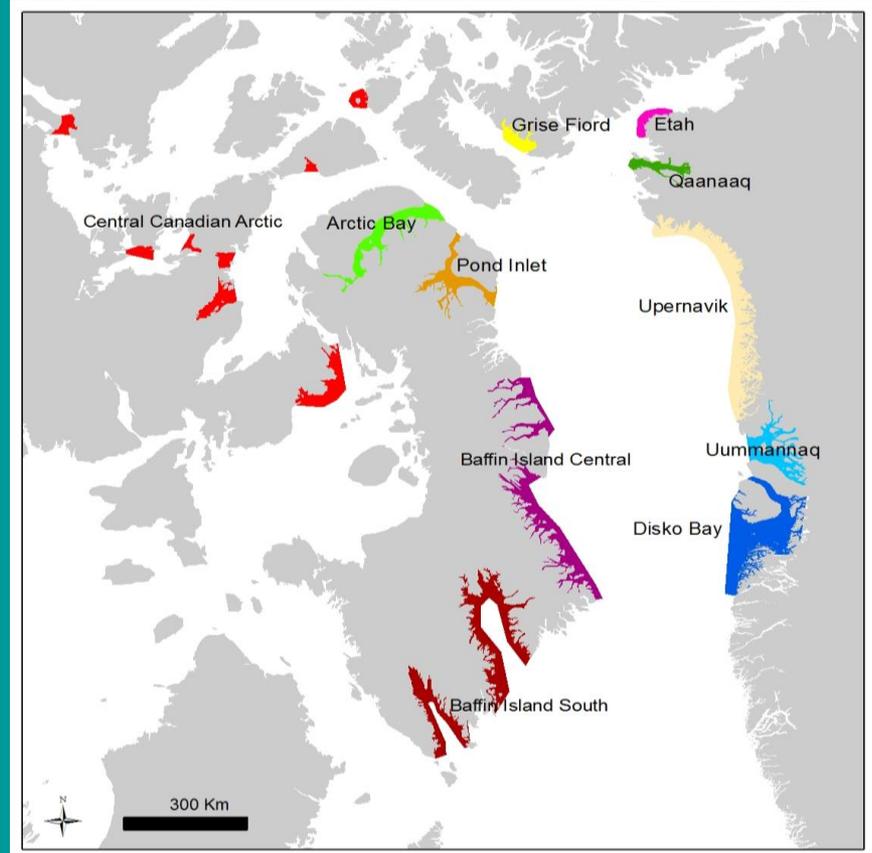
New management procedure

Narwhal



Narwhal Summering Aggregations

- | | | |
|------------------------|---------------------|----------------------------|
| Somerset Island | Eclipse Sound | Melville Bay Winter |
| Somerset Island Winter | Jones Sound | East Baffin Island |
| Admiralty Inlet | Smith Sound | Northern Hudson Bay |
| Admiralty Inlet Winter | Inglefield Breeding | Northern Hudson Bay Winter |
| | Melville Bay | |



Narwhal hunting localities



Narwhal “Catch Allocation Model”

- New and innovative management procedure for narwhals that allow managers to allocate narwhal quota for migrating shared stocks between Greenland and Canada for different seasons and hunting grounds
- Canada onboard





Achievements

- Previously assessments were primarily single species, focused on management of hunting
 - Based mainly on abundance/trends, and catch data, TEK

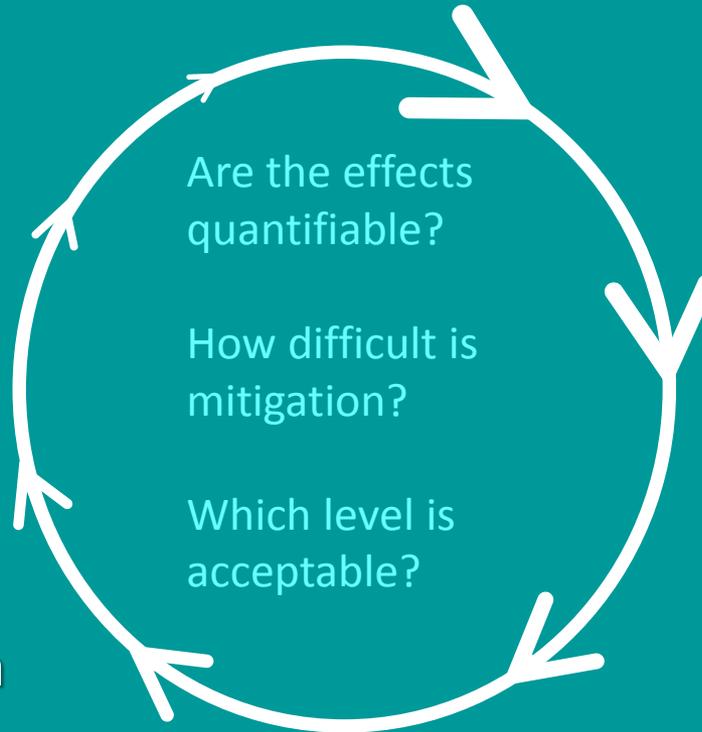


Ecosystem Based Management

Hunting

Climate Change

- Sea Ice (**habitat loss**/opening of new habitat)
- Competition w/new species
- Predator pressure
- **Ecosystem changes**



Fishing

- **By-catch**
- Habitat disruption
- Competition

Disturbance

- **Increased human activities** (incl. tourism): noise, habitat disruption & destruction

Pollution

- Oil spills
- **Contaminants**
- Direct & indirect impacts

Shipping

- Ship strikes
- Habitat disruption & destruction

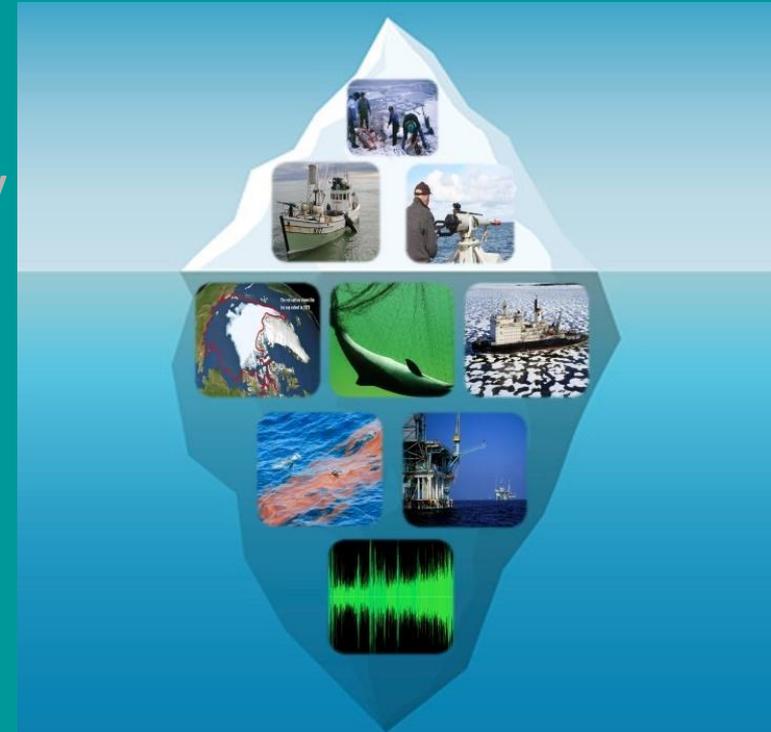




Objective: Sustainable Populations

- Previously assessments were primarily single species, focused on management of hunting
- Moving towards incorporating all impacts on marine mammals, not just direct catch
 - Other human activities
 - Ecosystem interactions & changes

**Putting everything together,
so it works and...is sustainable**





Challenges / visions

No data deficient stocks

Better understanding/facing news challenges
& getting focus on significant threats

- ✓ Maximising efficiency & resource output
 - building upon/using existing skills & competence (e.g., SCANS expertise, IWC entanglements initiative...)
- ✓ Assemble larger/best competence
 - **increasing cooperation w. organisation**



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Species of common interest (shared stocks?)

- harbour porpoise
- pilot whale
- common dolphin
- white beaked/sided dolphin

Common problematics

- by-catch
- pollution, reproductive impairment
- anthropogenic disturbances
- climate & environmental changes

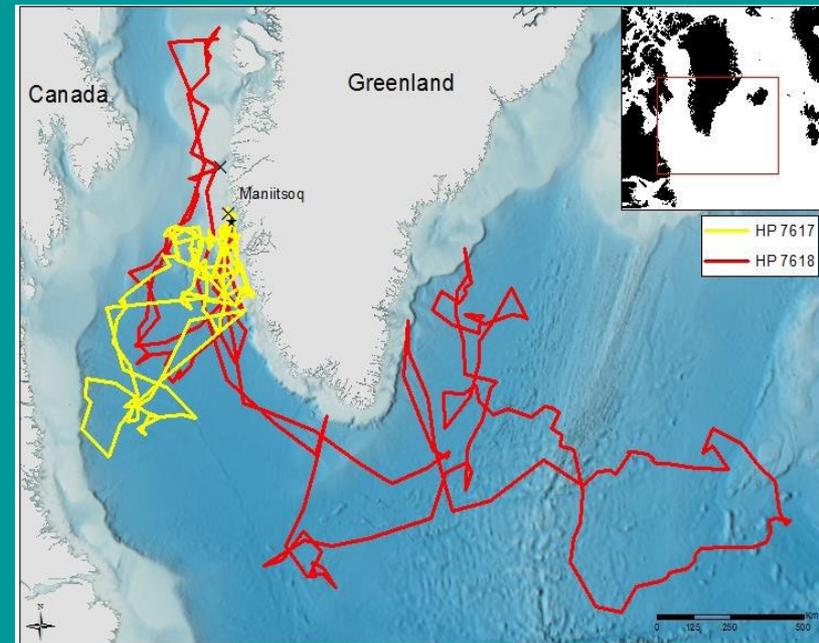


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Harbour porpoise

Shared stock(s) (NS) & many common issues

- ✓ Last NEA review in 1999 (at the initiative of NAMMCO)
- ✓ Review of population structure 2007
- ✓ Last partial assessment by NAMMCO in 2013
- ✓ New data on
 - movements
 - ecology (offshore, depth)
 - genetic
 - abundance
 - effect of contaminants
 - effect of climate change
 - health assessment
 - by-catch & removals





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Harbour porpoise

NAMMCO & IMR proposals: joint review of NA HP

1) Review of parameters feeding into population modelling

Stock identity (genetic, distribution and telemetry)

Biological / Life history parameters

Abundance

Removal rates (dir. & indir.) and reliability

2) Defining most significant threats & ways of accounting for them

Anthropogenic impacts

Climate change

Qualify/quantify cumulative impacts



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Harbour porpoise

NAMMCO & IMR proposals: joint review of NA HP

3) ? Stock assessment & population modelling

Sustainable total removals and/or

Defining environmental limits/triggers for management actions

4) Data gaps

5) Mitigation of threats



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Harbour porpoise

Date fixed – fall 2018 (NAMMMCO & IMR will go ahead but would love to have ASCOBANS along)

Scientific exercise and therefore attendance of Sc. E.

National delegates pays for their own expenses.

The WG adopts its own report, which is then sent to the parties SC/AC/C for comments.

NAMMMCO & IMR flexible regarding set-up, experts & chairs (maybe co-chairs?)

4-days?

NAMMMCO and IMR have some funding for the event, incl. for inviting external experts



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Harbour porpoise

Organising committee

- Parallel sessions to achieve more?
- Sub-committee on population modelling
 - defining data needed
 - one common scenario on shared data/several scenarios and pros&cons comparison?
 - preparatory work ahead of the meeting
 - ...

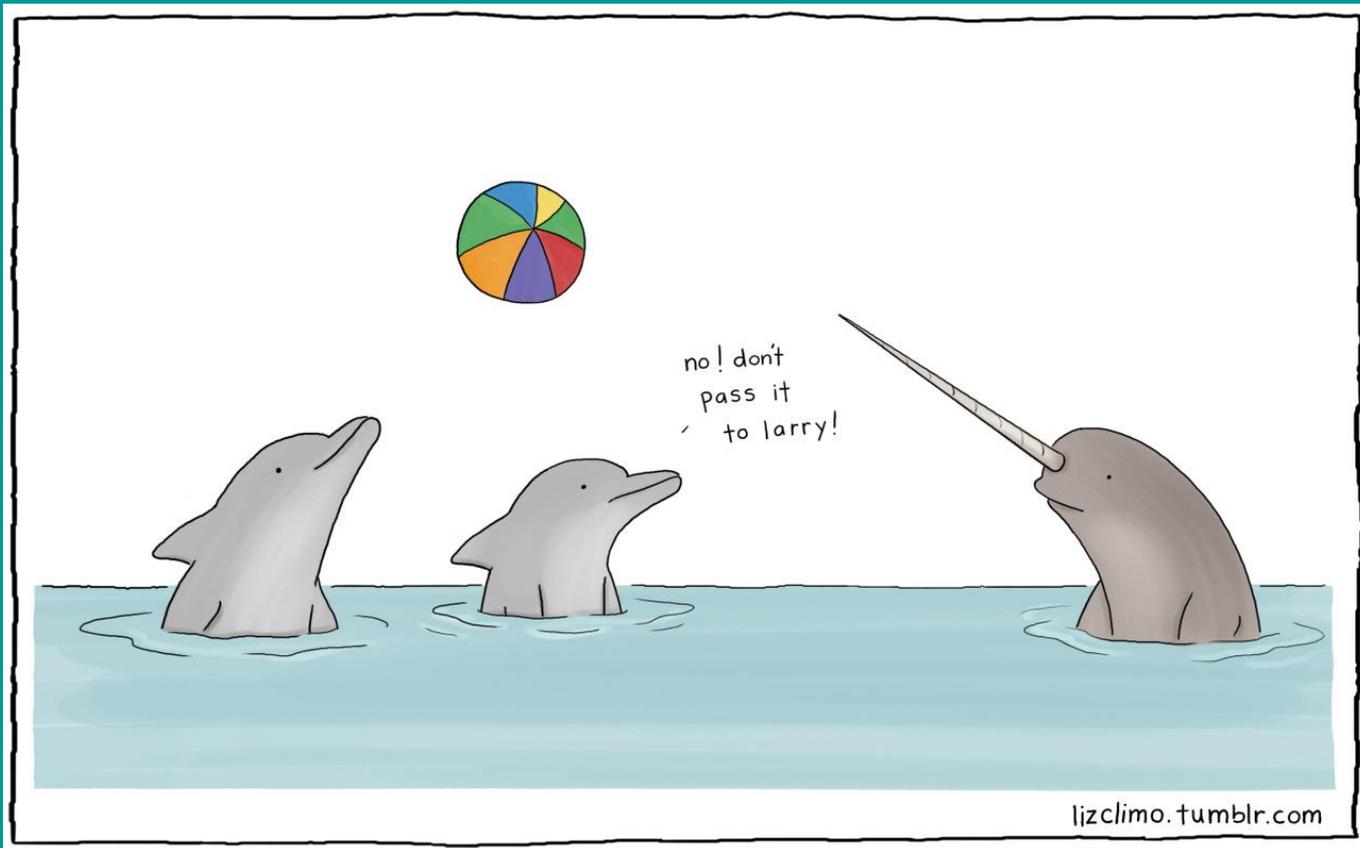
The joint process can stop at any level ;-)

NAMMCO

25 years 1992 - 2017



Thank you



Southern species moving north – changing the game...